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Precedents of perceived social support: Personality, early life experiences and gender

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Abstract   The perception of social support may be a trait-like construct stemming from the current personality and early environment as well as a summation of the actual support perceived. A total of 220 community individuals were examined for the effects of Eysenck Personality Questionnaire (EPQ) items and early life experience at home and outside on the number of sources of perceived social support and satisfaction with that support. High extraversion and low neuroticism scores of the EPQ were correlated with the availability of support only in women, while high maternal care and low maternal overprotection in childhood were correlated with the satisfaction with support only in men. Availability of support was also correlated with some types of early life events. The quantity and quality of perception of social support differ in their links to personality and early environment, and may be, to some extent, explainable in terms of them.

Key words   early life experience, gender, perceived parenting, personality, social support.

INTRODUCTION

Social support has been viewed as an important concept related to psychological well-being. Many studies have conceptually clarified this issue.[1–3] Barrera distinguished the functional aspects of social relationships with regard to: (i) perceived support (i.e., the perception that social support would be available should an individual wish to access it) and (ii) received support (i.e., actual enactment of social support).[3] Perceived social support includes both availability and satisfaction. Perceived support is predictive of coping effectiveness[4] and psychological/physical well-being, while received support is negatively correlated with mental health.[5] In an epidemiological study with a community population, Henderson *et al.* measured the availability (numbers of people ready to give support) of and satisfaction

(extent to which the individual is content) with social support from both intimate and non-intimate individuals.[6] They found that the occurrence of mental ill-health was associated with the satisfaction but not the availability of social support. The absence of enacted support or its negative association with mental health may appear paradoxical. However, individuals with mental ill-health may be more likely to seek help because of the distress they experience. These two types of social support seem to be discrete, since perceived social support is only modestly related to the support received from others.[7]

Although much research attention has been paid to what effects social support may have on mental and physical health when individuals are in distress, there are few studies thus far on the factors that may influence individuals to form their adult perceptions of social support. In addition to observing actual interpersonal ties, perceived support may be a cognition reflecting individuals' interest in explaining the interpersonal processes by which they actively construct intrapsychic realities.

The temporal stability of the perceived social support has been shown recently by empirical studies. For example, Furukawa and Shibayama studied high-

school exchange students who had spent a year abroad on three occasions—before, during, and after the programme—by using a questionnaire tapping the perceived social support.[8] Although the people who could provide support were almost completely different in both the home country and abroad, they calculated that 24–86% of the variance of social support measures was stable over the three time points. Thus, this was thought of as intraindividual. Kendler studied female twins and reported that social support measures were moderately stable temporally and that they were explainable by genetic factors.[9] Some researchers claim that perceived social support is a personality trait.[10]

Some studies proposed that working models were developed during early contact with the infant's caregiver, usually the mother, through attachment behavior.[11–13] This becomes a stable and inherent aspect of the person, which guides interpretations of social interactions and expectations about oneself and others. He believed that although working models of the self and others would develop as early as infancy, they would continue to influence the development, functioning, and perception of relationships in adulthood. Psychoanalytic perspectives hypothesize a profound link between early attachment experiences with significant others, such as parents, and the nature of subsequent relationships.[14] Thus, early experiences become internalized in the process of personality formation. This process encompasses the development of internal representations of others. It creates anticipatory images which shape attitudes and reactions towards others, as well as perceptions of significant individuals who are encountered at subsequent points in life. Hence, an individual's capacity to form a perception of supportive adult relationships would be contingent on the quality of earlier relationships.[15]

Recently, Blain *et al.* studied adult attachment in late adolescence.[16] They found that people reporting positive models of both self and others (secure attachment) also reported the highest level of perceived social support. Negative models of self or others (insecure attachment) had a negative impact on perceived social support. Hobfoll *et al.* studied women undergoing abortion.[17] They found that self-esteem influenced the satisfaction of support through high intimacy with the husband. Sherman and Donovan, studying a pregnant women population, found that the recall of acceptance by a parent as a child was related to the frequency of interaction with social network members and expectation of their future support.[18]

Therefore, the investigations thus far suggest that the perception of social support is not only exogenous but also interpersonally stable and derived from early experiences.[19]

In Japan, we have reported that the number of sources of perceived support was correlated with a character subscale self-directness, while satisfaction with perceived support was correlated with a temperament subscale novelty seeking and low harm avoidance. No early life experiences (e.g. early loss of a parent, perceived parenting, childhood abuse experiences, experiences of being bullied or and other life events) showed significant correlations with the number or satisfaction of the supportive people.[20] However, this investigation was limited because it used only young women of a small size in a workplace setting. The present study extended the previous investigation using both men and women in a community setting. We examined whether personality and perceived rearing behavior in childhood are associated with the adult formation of social support among a non-clinical population.

METHODS

Participants

Five hundred and eight inhabitants aged 18 years or older who were living in Town A in the city of Kofu, the capital of Yamanashi Prefecture, were sent a letter and invited to participate in an interview as part of an epidemiological study of wide aspects of mental health and mental illnesses: 228 (45%) agreed to be interviewed.[21–23] However, 12 later changed their minds, four were away from home on the day of the interview, three could not be interviewed for personal or administrative reasons, and two had moved out of the town, resulting in 207 participants (90 men and 117 women) being successfully interviewed. Individuals who had refused on this occasion were once again solicited when follow-up interviews were conducted about 9 months later. Of these people, 13 people agreed to be interviewed. The final sample consisted of 96 men and 124 women. Their mean (SD) age was 53.9 (16.6) years (range 18–91 years). No difference was found between men and women in terms of age. The interviewed and uninterviewed people did not differ in terms of gender and age. No other demographic information was available for the uninterviewed people.

Instruments

Social support

Assessing interpersonal relationships, we used an ad hoc interview modified from the Interview Schedule

for Social Interaction.[6] In this interview, scores are determined after a semistructured interview that assesses close attachment figures, friends, acquaintances, and work associates. The respondent's primary group is thus assessed in terms of both the availability of social relationships (number of supportive people available) and their perceived adequacy, resulting in satisfaction. In the interview, we asked the participants seven questions, both quantitative (availability) and qualitative (satisfaction) on social support items. Seven items consisted of three categories. They are (i) five emotional supports (talk frankly (people to whom you can talk frankly without having to watch what you say); know you very well (people who know you very well as a person); share your private feelings (people with whom you can share your most private feelings); share your happiness (people with whom you can share your happiness); tell your feelings of being upset (people to whom you can go to and tell such feelings); (ii) one informational support item (advice and guidance (people to whom you can turn for advice and guidance)), and (iii) one instrumental support (take over your job (people whom you can easily ask the favor of taking over your job)). The participants' satisfaction with their supportive relationship was assessed for the same seven items based on a four-point scale from 'very dissatisfied' (1) to 'very satisfied' (4).

The number and satisfaction item scores were factor-analyzed separately. They were rotated diagonally using the OBLIMIN technique of the SPSS-X.[24] The number of factors was determined by a scree test; the factors with a greater eigen value were retained until the stage when the reduction of eigen value from one factor to another reached a plateau.[25,26] The social support number items extracted one factor only with an eigen value of 3.4 and 48.0% of variance explained. The social support satisfaction items also extracted one factor only with an eigen value of 5.8 and 83.7% of variance explained. Therefore, we created two compound variables (total availability score and total satisfaction score) by simply adding the number of people available and the scores of the satisfaction items.

Personality

Extraversion (E) and neuroticism (N) scores of the Japanese version of Eysenck Personality Questionnaire (EPQ)[27] were used in the present study. The Japanese version was translated and designed by Professor S. Iwawaki (pers. comm., 1982). Although the Japanese version of the EPQ had four subscales (extraversion (E), neuroticism (N), psy-

choticism (P), and lie (L)), we used the first two subscales for further analyses. This is because the P score was a relatively new entry into the questionnaire and the E and N scores seemed to have much more value for comparison. The E and N scores had 21 and 23 items, respectively, with a two-point scale.

Parental rearing

Perceived parenting in childhood was measured by the Parental Bonding Instrument (PBI), a 25-item self-report questionnaire, designed to assess how the child viewed the attitudes of each parent during the first 16 years of life.[28] It includes two subscales: care and overprotection. Evidence for both the reliability and concurrent and predictive validity of this instrument is available.[29,30] The PBI was translated into Japanese[31] and its validity was confirmed.[31]

Harsh discipline

In the interview, participants were asked about the occurrence of (i) scolding; (ii) slapping; (iii) punching with a fist; (iv) hitting with an object; and (v) burning by the father and mother separately. Each behavior was rated by its frequency from never (1), several times a year (2), several times a month (3), several times a week (4), to almost every day (5). Because the father's and mother's discipline items yielded only one factor by a factor analysis,[32] two composite variables (i.e. the father's and mother's harsh discipline scores) were created by adding the scores of all the five times. Because they were skewed positively, they were log transformed.

Early life events

In the interview the participant was asked about a different variety of life events.[32] These events were classified into (i) school-related negative events (four events, such as changing school); (ii) health-related negative events (three events, such as one's own illness); (iii) family-related negative events (six events, such as being fostered); and (iv) positive events (four events, such as winning the first prize in art). We added the number of times each item was experienced under the same rubric to calculate the four early life events scores. We did not categorize the events following a factor analysis because life events did not necessarily reflect underlying factors and we were more interested in the meaning which might have been given to the participants.[33] The four early life event scores were skewed positively and thus were log transformed for further analyses.

Early parental loss experiences

The participant was asked if he/she had experienced the death of a parent, or separation from a parent for 1 month or longer, before the age of 16 years.[34]

Present mental disorders

In order to exclude the influence of the mental state at the time of the investigation, we assessed the participant's mental disorders. The schedule, Time-ordered Stress and Health Interview,[35] was developed using material from a Japanese draft of the Composite International Diagnostic Interview,[36] the Schedule of Affective Disorders and Schizophrenia,[37] and to make the DSM-III-R diagnoses of seven main mood and anxiety disorders (generalized anxiety disorder, panic disorder, major depressive episode, dysthymic, manic episode, phobic disorder (agoraphobia, social phobia and simple phobia), and obsessive-compulsive disorder). At the time of the interview, two (0.9%) met the criteria of generalized anxiety disorder; 12 (5.5%), major depressive episode; one (0.5%), dysthymic disorder; one (0.5%), manic episode; 10 (4.5%), phobic disorder; and two (0.9%), obsessive–compulsive disorder. A total of 16 (7.3%) people had at least one episode of any of the above disorders. The remaining 204 (92.7%) people were free from a diagnosable disorder. Additional details about the questionnaire survey and interviews are available.[21,23]

Procedure

The participants were first asked to complete a series of questionnaires before being seen by one of the interviewers. A total of 25 interviewers received 4 days of training, including role-playing. They included psychiatrists, doctors of other specializations, psychiatric social workers, clinical psychologists, and postgraduate students in psychiatry and medicine.

RESULTS

Descriptive statistics of all the variables used in the present study are shown in Table 1. All of them showed moderate to excellent Cronbach's alpha coefficients of these variables, and three showed a differ-

Table 1. Descriptive information on scales

Variables	No. items	Potential range of scores	Obtained range of scores	Scale (Mean)	Scale (SD)	Cronbach's alpha
Social support						
Total availability score	7	0	0–212	44.1	34.5	0.79
Total satisfaction score	7	4–8	7–28	23.7	6.0	0.97
Eysenck Personality Questionnaire						
Extraversion	21	0–21	2–21	10.7	4.6	0.82
Neuroticism	23	0–23	0–23	7.9	4.8	0.84
Parental Bonding Instrument						
Father's care	12	0–36	5–36	23.8	6.1	0.86
Father's overprotection	13	0–39	0–28	11.4	5.2	0.77
Mother's care	12	0–36	12–36	27.5	4.6	0.88
Mother's overprotection	13	0–39	0–29	10.0	5.3	0.81
Harsh discipline scores						
Father's harsh discipline	5	1.61–4.83	2.71–3.81	2.78	0.16	0.75
Mother's harsh discipline	5	1.61–4.83	2.71–4.09	2.74	0.16	0.83
Early life experiences						
School-related negative	4	0–	0–2.30	0.22	0.40	NA
Health-related negative	3	0–	0–1.39	0.22	0.38	NA
Family-related negative	6	0–	0–2.20	0.28	0.49	NA
Positive	4	0–	0–2.48	0.59	0.79	NA
Early parental loss						
Paternal loss	1	0–1	0–1	0.28	0.45	NA
Maternal loss	1	0–1	0–1	0.19	0.39	NA

NA, not applicable.
Only participants who had not experienced the loss of a particular parent were included for the calculation of Parental Bonding Instrument scores and harsh discipline scores.

Table 2. Correlations of the two perceived social support measures with predictor variables

Variables	Men ($n=96$)		Women ($n=124$)	
	Total availability score	Total satisfaction score	Total availability score	Total satisfaction score
Age	−0.00	0.15	0.01	0.12
Eysenck Personality Questionnaire				
Extraversion	0.15	0.11	0.19*	0.07
Neuroticism	−0.07	−0.02	−0.21*	−0.12
Parental Bonding Instrument				
Fathers' care	0.07	0.15	0.16	−0.04
Fathers' overprotection	−0.03	−0.11	−0.09	−0.00
Mothers' care	0.06	0.31**	0.07	−0.03
Mothers' overprotection	−0.04	−0.27**	−0.10	0.00
Harsh discipline scores				
Fathers' harsh discipline	−0.02	−0.03	−0.05	−0.07
Mothers' harsh discipline	−0.05	−0.14	0.06	0.05
Early life events				
School-related negative events	0.06	0.05	0.33**	0.10
Health-related negative events	−0.11	0.03	−0.01	−0.27**
Family-related negative events	0.21*	0.20	0.24**	0.13
Positive events	0.05	0.01	0.18*	0.15

* $P < 0.05$; ** $P < 0.01$.
Only participants who had not experienced the loss of a particular parent were included for the calculation of Parental Bonding Instrument scores and harsh discipline scores.

ence between the two genders. Thus, the father's harsh discipline score, the mother's harsh discipline score, and the health-related negative event score were all higher among men than among women. Therefore, we performed the following analyses separately for the two genders.

In both men and women, the total availability score or total satisfaction score did not differ between those participants with and without current DSM-III-R disorders. This was also the case when all of the participants were combined (total availability score, participants with current DSM-III-R disorders, (mean 37.5 (SD 25.5)), participants without current DSM-III-R disorders (mean 44.6 (SD 35.1)); total satisfaction score, participants with current DSM-III-R disorders (mean 21.9 (SD 6.9)), participants without current DSM-III-R disorders (mean 23.9 (SD 5.9))).

Among men, only the family-related negative event score was *positively* correlated with the total availability score, while the mother's high care and low overprotection scores were correlated with the total satisfaction score (Table 2).

Among women, high EPQ E and low N scores were correlated with the total availability score. Also, the school-related and family-related negative event score as well as the positive event score were correlated *positively* with the total availability score. The

women's total satisfaction score was correlated only with the health-related negative event score (Table 2).

DISCUSSION

The present study showed, to some extent, evidence of links between perceived social support measures and personality, perceived parenting and early life events. This may be in line with the notion that perception of supporting people may be a personal trait and may have stemmed from experiences in childhood.[10] The two facets of social support (availability and satisfaction) have differential correlations with the precedents. They may be gender-specific. Thus, the availability of social support was linked with personality in women, while satisfaction was linked with perceived parenting in men. Both of them had links with some types of early life events.

Only women showed a slight but significant correlation between personality and perceived availability of social support. Thus women are likely to feel that they have a greater number of supportive people if they are high in extraversion and low in neuroticism. Men failed to show significant links. This gender difference suggests that women's perception of social support is more deeply ingrained in personality than that of men. However, the gender difference in the link of

personality with perceived social support should be viewed as only tentative. The correlations were slight in women and may be a chance product. This is, as yet, not conclusive, and may well call for further research.

The present study demonstrated a moderate correlation between perceived rearing by the mother and the satisfaction with current social support of the men. These may be in line with the results of Pettit *et al.*[38] They examined the relationships between family interaction qualities and children's social cognition and subsequent social competence with peers at kindergarten. They found that children's social competence with peers was predicted by maternal responsiveness (i.e., affectively positive behavioral matching). Parker and Barnett,[39] and Kitamura *et al.*[23] demonstrated that the experience of receiving adequate maternal care in childhood influenced the child towards perceiving adult intimate relationships as satisfactory. Our results partially support their findings.

Flaherty and Richman studied 211 first-year medical students, and found that the perceived quality of their current social support networks was more strongly correlated with perceived maternal care than paternal care.[40] Their main interest in social support seemed to be in its perception, rather than in the number of supportive individuals. Our study showed that high maternal care and low maternal overprotection during childhood were correlated with the men's satisfaction with social support. The reason for the lack of association between maternal overprotection and poor current social support in Flaherty and Richman's[40] study is unclear. However, these authors did not examine this association separately for men and women. Since we found a significant correlation between the two variables among men exclusively, this gender difference may explain the difference between our results and the Flaherty and Richman[40] study. Thus, it seems that when obtaining the social skills to expand the network of supportive people, only boys are influenced by maternal rearing patterns when developing cognition of current relationships with others.

The relationship between life events in childhood and adults' satisfaction with social support is understandable. Women who had experienced more health-related negative events were more likely to be dissatisfied with the current personal network. However, it seems difficult to interpret the *positive* correlations between the number of negative events both in men and women and adults' number of supportive people. It may be that children who had experienced adversities were more anxious to establish interpersonal networks in order to secure his/her

safety. In a companion paper using the same data set, Kitamura *et al.* reported a positive correlation of the N score of the EPQ with the family-related negative events in men but a positive correlation of the E score with the positive events in women.[20] Therefore, men who experienced childhood adversities may be more unstable emotionally and thus need and seek more personal support, while women who experienced events increasing self-esteem and self-efficacy may be more confident in establishing new friendships. Greater numbers of personal networks may have different meanings in men and women.

There are several limitations to the present study, and interpretation of these data requires some caution, because both PBI and social support were rated by the same participants. Flaherty and Richman[40] pointed out that this limitation was inherent in retrospective accounts of earlier experiences. They suggested that particular 'response styles' of respondents (e.g., those involving depressive affects) produce similar distorted perceptions of both past and current relationships. In contrast, Brewin *et al.*,[41] inquiring into the accuracy of memories of early experiences, concluded that naturalistic studies on personal memories of psychiatric patients were as reliable as those of non-patients. Our data showed that current DSM-III-R disorders had few links with perceived social support, thus supporting Brewin *et al.*'s suggestion.[41] Thus, we may exclude the possibility that findings might be invalid as a consequence of a participant's negative mental state influencing scores on both the PBI and perceived social support in adulthood. Another important issue related to this is a possible effect of age group on the recall of early experiences. This issue cannot be addressed properly in the present study and needs further study.

A second possible source of bias is the overlap of the perceived parental attitude and social support. Thus, warm parents may be more likely to be involved as 'supportive' people. However, because this study has a skewed age distribution towards older people who have already lost their parents, we believe it is unlikely that a substantial number of participants included their parents as currently supportive.

A very important limitation of this study is a lack of validation of the recall of early experiences. The distinction between the real early experience and the perception of it is not clear. Also difficult to disentangle is a possible inclination on the positive aspects of both current and previous events by the same person. However, these are methodological limitations inherent in studies of this kind. Caution, however, should be exercised in leading conclusions as to causality.

Overall, the present findings have suggested the importance of two features. First, it seems that parental care may be predictive of adult social support. Second, we propose the necessity of analyzing both genders separately when we study the relationships between perceived rearing and current social support.

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