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The Direct and Indirect Relationship between Interpersonal Self-Support Traits and Perceived Social Support: A Longitudinal Study

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Abstract Based on our previous cross-sectional survey, the current study investigated the longitudinal relationship between interpersonal self-support traits and perceived social support in another sample. A sample of 502 Chinese high school students completed the Interpersonal Self-Support Scale for Adolescent Students (ISSS-AS), the Social Support Rating Scale (SSRS), and the Multidimensional Scale of Perceived Social Support (MSPSS) twice across a 6-month interval. The longitudinal path analysis revealed that after controlling for initial perceived social support, interpersonal initiative and interpersonal flexibility were related to perceived social support six months later through the mediating role of enacted social support at Time1. In addition, interpersonal flexibility was directly associated with perceived social support six months later. The current findings suggested that the interpersonal traits of interpersonal flexibility and interpersonal initiative were related to perceived social support cross time, and might discover a new interpersonal trait related to perceived social support.

Keywords Interpersonal self-support· Perceived social support· Enacted social support· Interpersonal traits· Longitudinal study

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Social support is a broad term, which can be divided into enacted social support (objective supportive actions received within the social network) and perceived social support (subjective feelings and experiences of support) (Den Oudsten et al. 2010; Haber et al. 2007; Lakey et al. 2010; Lonnqvist and Deters 2016; Moyer and Salovey 1999). The enacted social support can be regarded as a situational variable or stimulus variable, while perceived social support is a psychological variable. Related to enacted social support, perceived social support is found to be more linked to other psychological variables (e.g., Haber et al. 2007; Holt-Lunstad et al. 2010; Uchino 2009; Wethington and Kessler 1986). Furthermore, though perceived social support may be based on enacted social support in some degree, the effect of other psychological variables seem to be more important.

Among them, the personality variables have been highly concerned (e.g., Collins and Feeney 2004; Den Oudsten et al. 2010; Leskelä et al. 2009; Swickert et al. 2010). Especially, the personality taxonomies of interpersonal traits likely influence perceived social support. For example, extraversion was found to longitudinally predict perceived social support among college freshmen (Lakey and Dickinson 1994) and perceived support from peers in adolescence (Asendorpf and van Aken 2003) and young adulthood (Neyer and Asendorpf 2001). Agreeableness was found to predict perceived social support 3 months (Lakey and Dickinson 1994), 12 months, and even 24 months later (Den Oudsten et al. 2010). Interpersonal traits involve interpersonal dispositions and the models of interpersonal behavior, cognition, and emotion (De Raad 1995; Sollberger et al. 2009), and may influence the interpersonal communication and relationship (Gaines 1996; McCrae and Costa 1989). The theoretical perspectives with respect to interpersonal traits derived from the Wiggins's interpersonal circle (Trapnell and Wiggins 1990; Wiggins 1979) and Five-Factor Model (McCrae and Costa 1989) suggested

the rationale of the relationship between interpersonal traits and perceived social support. For example, interpersonal traits were believed to influence the preference to social stimulation and the quality of social interaction (McCrae and Costa 1989). In other words, in theory, interpersonal traits should be associated with both the support one receives from a social network and the cognition and feeling response to the social support. However, to date, limited studies specifically focus on the relationship between interpersonal traits and perceived social support, though some studies (e.g. Asendorpf and van Aken 2003; Den Oudsten et al. 2010; Lakey and Dickinson 1994; Neyer and Asendorpf 2001) using interpersonal traits such as extraversion and agreeableness. Thus, the present study wants to explore the relationship between personality and perceived social support through the interpersonal traits perspective. Furthermore, the current study tries to extend prior studies by using a Chinese indigenous interpersonal personality construct called interpersonal self-support (ISS), and tries to discover some new interpersonal traits related to perceived social support beyond Western models of personality.

Western models of personality structure may be complemented by the social- and relational-oriented personality traits derived from non-Western culture (Cheung et al. 2011). Chinese culture emphasizes interpersonal relationship and qualities. Some interpersonal traits emphasized in Chinese culture may not have been tapped by Western personality tests (Gabrenya and Hwang 1996). For example, recent research showed that certain functions of some traits of ISS could not be explained by traits of Western personality theories (Xia et al. 2015; Xia et al. 2014b).

ISS is derived from the interpersonal dispositions and behaviors of excellent Chinese people who are good at social communication or have salient social achievements (Xia 2010). It consists of a set of five personality traits that could help solve interpersonal problems, maintain harmonious social relationships, and facilitate social development (Xia 2010; Xia et al. 2015; Xia et al. 2013b). These five traits are interpersonal independence (the tendency and ability to deal with interpersonal activity or problems independently), interpersonal initiative (the tendency to initiate affiliations with other individuals), interpersonal responsibility (the tendency to be faithful and truthful to others), interpersonal flexibility (the tendency to deal with interpersonal events contingently and flexibly), and interpersonal openness (the tendency to accept other individuals positively). These five traits are relatively independent, and have some positive interpersonal functions.

The five ISS traits were developed from personality trait theory and derived from desired interpersonal dispositions and behaviors described in China's collectivistic and interdependent culture (Xia 2010). For example, they embody positive interpersonal attitudes, nice interpersonal behaviors, and superior social abilities that agree with Chinese etiquette and customs, and are valued and highly praised in Chinese society (Xia 2010; Xia et al. 2012a; Xia et al. 2013b). Thus, on the one hand, ISS traits overlap in some respects with personality traits derived from Western culture and the present personality trait theory. For instance, low interpersonal independence is similar to self-consciousness facet in neuroticism of five-factor model and interpersonal initiative is similar to warmth and gregariousness facets from extraversion (Xia et al. 2014a, b). On the other hand, ISS traits also bring some new interpersonal features that may be not emphasized by Western culture. As far as we know, no trait similar to interpersonal responsibility and interpersonal flexibility was focused on in Western literature. For example, interpersonal responsibility was found to predict depression even after controlling for the Big Five personality (Xia et al. 2014b). Interpersonal flexibility is different from agreeableness, as its twofold nature of emphasizing both interpersonal problems-solving and pleasing others in social contacts (Xia et al. 2014a, b).

Interpersonal traits may influence perceived social support via two pathways drawn from the temperamental (or cognitive) and instrumental (or behavioral) mechanisms described in prior research (Lutz and Lakey 2001). For example, extraversion seems to predict perceived social support via the social net over time (Russell et al. 1997). ISS traits may influence perceived social support via the two pathways as well. On one hand, ISS traits may directly impact perceived social support. First, interpersonal traits may directly affect the interpretation and perception of supportive behaviors (Lakey and Cassady 1990; Pierce et al. 1997). Individuals with high ISS traits may experience more social support from the social behaviors of others. Second, ISS traits are pro-social traits and predispose individuals to process positive interpersonal information, which in turn helps people perceive more social support. An experimental study had found that a high ISS person preferentially attended to positive interpersonal information (Xia et al. 2013b). Presumably, high ISS individuals may be more susceptible to information with respect to social support from social nets and experience more social support. Third, other longitudinal studies provide evidence for the direct predictive effects of interpersonal traits (e.g., agreeableness, extraversion) on perceived social support (Den Oudsten et al. 2010; Leskelä et al. 2009). Presumably, ISS traits may directly impact perceived social support. Fourth, our previous cross-sectional research (Xia et al. 2012b) showed that interpersonal responsibility and interpersonal flexibility were directly related to perceived social support.

On the other hand, ISS may help develop enacted social support that influences perceived social support. Firstly, interpersonal traits may actively affect whether the networks they constructed were supportive (Pierce et al. 1997) and the quality of objective support transactions (Roberts and Gotlib 1997; Tong et al. 2004). For example, an extraverted person is

inclined to be outgoing and sociable, prefers to interact with others, and indeed reports larger social networks (Russell et al. 1997; Swickert et al. 2002; Swickert et al. 2010). Agreeable individuals tend to be kind and cooperative, cope in ways that facilitate or maintain positive social relationships (Carlo et al. 2005; Jensen-Campbell and Graziano 2001), and reported more enacted social support (Swickert et al. 2010). Similarly, people high in ISS are believed to be skilled at solving interpersonal problems and facilitating interpersonal relationships (Xia 2010; Xia et al. 2014a; Xia et al. 2013b). The empirical data had also shown that all ISS traits were positively related to high quality interpersonal behaviors, interpersonal problem solving, and interpersonal coping (Xia et al. 2015; Xia et al. 2011) and negatively associated with interpersonal stress (Xia 2011; Xia et al. 2013a). These features would help create social support resources; thus, ISS may improve enacted social support. Second, enacted social support impacts perceived social support. Although perceived social support reflects subject feeling and evaluation, it should have objective bases. Perceived social support depends, at least in part, on actual supportive behaviors (Collins and Feeney 2004; Ueno and Adams 2001). For example, Norris and Kaniasty (1996) found that enacted social support predicted perceived social support collected 12 and 24 months later. There is also evidence that initial enacted social support still predicted subsequent perceived social support when initial perceived social support was controlled (Russell et al. 1997). Fourth, our previous cross-sectional study (Xia et al. 2012b) found that enacted social support mediated relations between interpersonal initiative, interpersonal openness, and perceived social support. Finally, this mediation hypothesis is supported by other longitudinal investigation with other interpersonal trait (e.g., extraversion) (Russell et al. 1997). As mentioned above, extraversion is similar to interpersonal initiative, and therefore, it is reasonable to presume that ISS traits may play a role as an instrument to conduct supportive networks, which, in turn, seem to create and even promote the perception of social support.

In sum, the present study hypothesized that initial ISS traits would predict the followed perceived social support directly and indirectly from the mediating role of initial enacted social support. Given that cross-sectional studies often conclude with recommendations that a longitudinal design was more helpful in untangling potential causal relationships (e.g., Chen et al. 2007; Xia and Ding 2011), and evidence from longitudinal research seems more persuasive than that from the cross-sectional survey. Thus, the present study tried to explore the mediation model through longitudinal survey, and the hypothesized longitudinal relation model with respect to ISS traits, enacted social support, and perceived social support was displayed as Fig.1.

Method

Participants

An initial sample of 685 adolescents completed the research measures at Time 1 (T1). After a 6-month interval, 80.30 % of them also completed the follow-up assessment. The participants were recruited from three high schools located in the Shandong and Sichuan provinces of China with the whole class sampling method. With the invalid data being removed, the final sample was comprised of 291 females and 211 males between 15 and 18 years of age (M = 16.57, SD = 0.79). The differences between participants who completed the study and those who were lost are not significant on gender, age and on the scores of the Interpersonal Self-Support Scale for Adolescent Students (ISSS-AS), the Social Support Rating Scale (SSRS), and the Multidimensional Scale of Perceived Social Support (MSPSS). The present sample was a new and independent one, which was different from the sample in previous study (Xia et al. 2012b).

Measures

Interpersonal Self-Support (ISS)

ISS traits were measured using the Interpersonal Self-Support Scale for Adolescent Students (ISSS-AS; Xia and Huang 2008). Students responded to a 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*completely*). This 20 items-scale consists of 5 subscales: interpersonal independence (e.g., "It is easy for me to talk with strangers by myself"), interpersonal initiative (e.g., "I actively make new friends"), interpersonal responsibility (e.g., "I never give others empty promises"), interpersonal flexibility (e.g., "I am good at reconciling different opinions"), and interpersonal openness (e.g., "I can accept those who have many shortcomings"), with higher scores reflecting higher levels on the related interpersonal trait. In a sample of separate high school students, the reported 9-week test-retest reliability of the five measures were established, ranging from .60 to .79 (Xia and Huang 2009). The validity has been demonstrated and reported (Xia et al. 2013a; Xia and Huang 2009). In the present sample, Cronbach's α of the five subscales in sequence, were, .74, .71, .58, .59, .51 for T1, as well as .75, .74, .64, .67, .56 for T2. Considering the two period assessments of this study, internal consistencies were adequate, with one exception for interpersonal openness. As a result, the variable of interpersonal openness was excluded from the final statistical analyses.

Enacted Social Support

Enacted social support was assessed with the well-validated Chinese Social Support Rating Scale (SSRS, Xiao and Yang

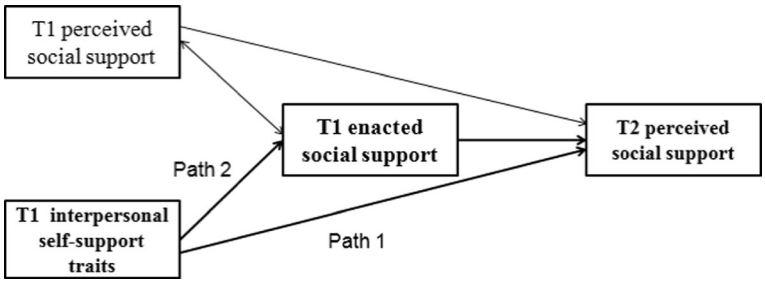

Fig. 1 Hypothetical Two-path model of the longitudinal relation linking T1 interpersonal self-support traits to T2 perceived social support. *Notes*. T1 = Time 1; T2 = Time 2.

1987), which has been widely used in social support research in China with good validity and reliability (Kong and You 2013; Kong et al. 2013; Xia et al. 2012b). It consists of 10 items that ask respondents to evaluate the amount, quality, and utilization of social support they had received. Examples of items include "How many people you always rely upon," and "How easy can you get help from neighbors if you were in trouble". The sum score on all items was used as a measure of enacted social support. In the present sample, Cronbach's α of the scale were .71 for both T1 and T2.

Perceived Social Support

Perceived social support was assessed by the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al. 1988). This measure has been extensively used to measure the perceived social support from three sources: family, friends, and significant others. It is available for study in China, as its translated version has been proved to have good validity and reliability in Chinese samples (Chou 2000). This questionnaire involving 12 items asks participants to rate on a 7-point Likert-type scale ranging from 1 (*very strongly disagree*) to 7 (*very strongly agree*). Higher scores represent higher levels of perceived social support. Cronbach's α of the scale in the present sample were .87 for T1, and .89 for T2.

Procedure

This study was approved by the Research Ethics Committee of the Faculty of Psychology, Southwest University. Permission was received from the schools in which the current study sampled 10 classes for participants. Then, the trained research assistants conducted investigations in each class. They provided standardized and detailed directions, emphasized the confidentiality of their response, and gave each student a questionnaire packet including a battery of self-report measures along with demographic questions involving participants' age and gender. The standardized procedures were administered across classrooms at both time points. Participants finished all measures within 15–20 min and returned the packet to research assistants upon completion.

Data Analysis

The percentages of missing data for all ISS sub-scales, Enacted Social Support scales, and Perceived Social Support scales at T1 and T2 were from 0.8 % to 4.0 %. Since Bennett (2001) recommended 10 % as the biased cutoff, the amount of missing values in the present study was relatively small and unlikely to bias any of our subsequent results. To test whether missing values were at random, a Little's Missing Completely at Random (MCAR) test was conducted (Fielding et al. 2008). The results supported the MCAR assumption, $\chi^2 = 383.31$ ($df = 417$), $p = .88$, suggesting that the missing data had little correlation with other variables. Since the missing data was few and the maximum likelihood estimation with robust (MLR) estimator in Mplus 7 could handle missing data, the missing values remained.

Preliminary analyses were carried out with SPSS 18.0. Zero-order correlation analysis was used to construct a correlation matrix for all variables (see Table 1). For the path analysis via structural equation modeling (SEM), we used a robust estimation approach with MLR because the assumption of multivariate normality was found to be violated (both multivariate skew and kurtosis tests of model fit showed that $p < .05$) and the missing data were remained. Path analysis with SEM methodology was employed using Mplus 7.0 to explore the direct and indirect predictive effects of ISS traits on perceived social support following previous studies (e.g., Turkoz et al. 2008; van Zuiden et al. 2011). First, a saturated model was constructed according to the model shown in Fig. 1. The saturated model incorporated the four T1 ISS traits as predictors while T1 perceived social support as a covariate. T1 enacted social support was entered as a mediator and T2 perceived social support as a predicted variable. Then path analyses were conducted to explore the longitudinal relation of ISS traits, enacted social support, and perceived social support. Non-significant paths were deleted one by one, and the final model was obtained and reported in Fig. 2. A group of generally recognized indices provided by Mplus were used to assess model fit: The chi-square goodness-of-fit (χ^2), the Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and Tucker Lewis Index (TLI). The model was considered well-fitting if the ratio χ^2/df was less than 2 (Schermelleh-Engel et al. 2003), the lower

Table 1 Descriptive statistics and correlations of the study variables ($N = 502$)

	M	*SD*	1	2	3	4	5	6	7	8	9	10	11
Time 1													
1. IId	3.06	.99	1										
2. II	3.04	.86	.53**	1									
3. IR	3.89	.69	.12**	.02	1								
4. IF	3.53	.68	.18**	.26**	.24**	1							
5. ESS	39.43	5.51	.25**	.38**	.10*	.28**	1						
6. PSS	63.82	11.65	.20**	.28**	.16**	.31**	.65**	1					
Time 2													
7. IId	3.17	.95	.74**	.50**	.10*	.22**	.19**	.14**	1				
8. II	3.09	.85	.48**	.70**	.02	.30**	.28**	.20**	.56**	1			
9. IR	3.88	.70	.18**	.07	.66**	.18**	.11*	.14**	.20**	.09	1		
10.IF	3.56	.68	.18**	.19**	.23**	.55**	.19**	.19**	.26**	.33**	.26**	1	
11. ESS	39.08	5.45	.19**	.33**	.05	.29**	.71**	.54**	.23**	.31**	.10*	.26**	1
12. PSS	64.48	10.85	.17**	.23**	.09	.32**	.53**	.67**	.16**	.27**	.16**	.27**	.62**

IId = interpersonal independence; II = interpersonal initiative; IR = interpersonal responsibility; IF = interpersonal flexibility; ESS = enacted social support; PSS = perceived social support.*$p < .05$; **$p < .01$

limit of RMSEA was close to 0 while its upper limit was below 0.08, and CFI and TLI values were 0.95 or more (Hooper et al. 2008). The hypothesized indirect predictive effects in the present study were further tested using the Bootstrap estimation procedure with 1000 bootstrap samples.

Results

Table 1 presents means and standard deviations of the four interpersonal self-support (ISS) traits, enacted social support and perceived social support at Time 1 (T1) and Time 2 (T2), along with the zero-order correlation coefficients among the variables. These major variables were correlated in an expected direction.

Firstly, a saturated model was created according to the hypothesized model shown in Fig. 1. After deleting all the non-significant paths, the final model was obtained (see Fig. 2). The model yielded a very good fit to the data, $\chi^2 = 0.13$ (df = 1), $p = .91$, $\chi^2/df = 0.13$, Root Mean Square Error of Approximation (RMSEA) < 0.001 [90 % *CI* = .000–.049], Comparative Fit Index (CFI) = 1.00, and Tucker Lewis Index (TLI) = 1.00. In addition, to test the mediating effects of T1 interpersonal initiative and T1 interpersonal flexibility on T2 perceived support through enacted social support, a bootstrapping method was conducted (Preacher and Hayes 2008). The obtained 95 % bias-corrected bootstrapping confidence intervals (CIs) with 1000 bootstrap samples were .01 to .06, .02 to .08, respectively, indicating that the mediating effects were significant.

As Fig.2 depicts, after controlling for T1 perceived social support, the prior level of enacted social support served as a mediator in the predictive relation of T1 interpersonal initiative -T2 perceived social support and T1 interpersonal flexibility -T2 perceived social support. Their indirect effects were 0.05 ($p < .001$), 0.03 ($p < .001$), respectively. In addition, only

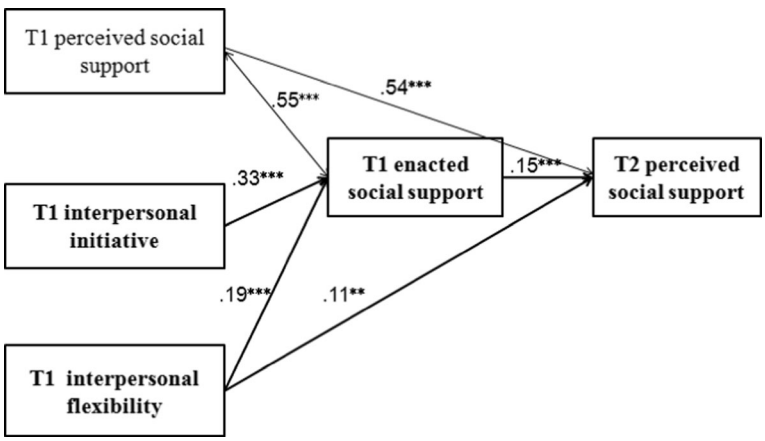

Fig. 2 Path analysis testing the longitudinal model of T1 interpersonal self-support traits, T1 enacted social support, and T2 perceived social support. *Notes*. Non-significant paths from T1 interpersonal self-support dimensions to T1 enacted social support and to T2 perceived social support are not displayed for the sake of clarity and parsimony. *$p < .05$, **$p < .01$, ***$p < .001$.

T1 interpersonal flexibility directly predicted T2 perceived social support, with a significant path coefficient being 0.11 (p = .001). In summary, T1 interpersonal initiative and T1 interpersonal flexibility could account for 9.21 % of the variance in T2 perceived social support.

Discussion

The focus of this study was to explore the contribution of interpersonal self-support (ISS) traits to changes in perceived social support over a 6 month's longitudinal interval. Our results showed that after the control of initial perceived social support, interpersonal initiative and interpersonal flexibility were related to perceived social support at Time 2 through the mediating role of enacted social support at Time1; in addition, interpersonal flexibility at Time 1 was directly related to perceived social support at Time 2. These results suggest that certain interpersonal traits (such as interpersonal flexibility) could be directly related to perceived social support cross time, and the enacted social support may be one of mediating mechanisms underlying the relationship between some interpersonal traits (such as interpersonal initiative) and perceived social support. In short, the present results partially support our hypothesized model, and provided a further evidence for the previous cross-sectional study (Xia et al. 2012b).

As mentioned before, the direct relationship between interpersonal flexibility and perceived social support may be due to the temperamental mechanism. Interpersonal flexibility is defined as the tendency to deal with interpersonal events contingently and flexibly. It is associated with a positive social interaction pattern, and typically represents the interdependent culture and relations in China (Xia et al. 2012b). In contrast with the dispositional trait neuroticism, which carries negative orientations (e.g., inherent tendency towards negative feelings and automatic negative bias in cognitive process) (Robinson et al. 2007), interpersonal flexibility may involve some automatic positive orientations (e.g., temperamental sociability proneness) to experience supported interpersonal environment. One experimental result (Xia et al. 2013b) supported this point that high interpersonal flexibility person selectively attended to the positive interpersonal information, while those low-scorers were in favor of negative interpersonal information. As such, the direct relation is understandable because interpersonal flexibility refer to positive cognitive tendency toward interpersonal information (i.e., positive social-related percept predisposition).

In addition, interpersonal traits may be instrumental in impacting the quantity and quality of interpersonal resources. Interpersonal initiative is characterized with descriptors such as sociability and extraversion (Xia et al. 2012b). On one hand, individuals high in interpersonal initiative enjoy contacting with others, which may help to construct larger social networks and create greater proportion of positive relationships (Xia et al. 2012b). On the other hand, those individuals have stronger tendencies to seek out support when confronted by stress. Thus, individuals high in interpersonal initiative may report more enacted social support than their counterparts.

Similar processes would occur in the interpersonal flexibility-enacted social support relation. Interpersonal flexibility involves positive interpersonal attitudes and great social abilities, which always seek for harmonious relations and win-win situations (Xia et al. 2012b). High interpersonal flexibility individuals could contingently deal with interpersonal events and flexibly maintain needs, interests, and face during interaction, rather than rigidly adhere to the principles and methods in interpersonal communication (Xia and Huang 2008). Results from previous studies (Xia et al. 2011) showed that high interpersonal flexibility persons were good at dealing with interpersonal relationship, and solving interpersonal problems. Thus, the flexible interpersonal trend, ability, and superior social skills are beneficial to establishing and maintaining harmonious interpersonal relationships (Xia et al. 2011), and then contribute to increased enacted social support. In addition, as reported above, enacted social support was a good contributor to perceived social support across time (Norris and Kaniasty 1996; Russell et al. 1997). Therefore, the results that T1 enacted social support mediated partial effects of T1 interpersonal flexibility on T2 perceived social support were understandable.

To summarize, temperamental and instrumental paths may be the two of the important mechanisms that underlie the relationship between interpersonal traits and perceived social support. Those interpersonal traits that refer to positive social cognitive dispositions may be directly associated with perceived social support. Moreover, the interpersonal traits that encompass social-proneness behaviors and positive social interaction may be related to perceived social support through the instrumental path as enacted social support. In other words, when the key components of certain interpersonal trait are known, the relationship model of the interpersonal trait and perceived social support may be predicted. Future studies warrant testing the hypothesis.

Of particular interest is that interpersonal flexibility was related to perceived social support both directly and indirectly. The hypothesis suggests that some interpersonal traits such as interpersonal flexibility may carry both temperamental sociability proneness (e.g., positive interpersonal attitudes) and learned and acquired social behaviors (e.g., superior social skills), and certain interpersonal traits (such as interpersonal initiative) may just encompass one. Future study warrants exploring the interpersonal components difference in various interpersonal traits.

The finding that T1 interpersonal initiative was related to T2 perceived social support via T1 enacted social support was

consistent with the result from a previous study (Russell et al. 1997), which employed similar interpersonal trait–extraversion. Thus, our results may provide some support for across-culture evidences with respect to the relational model of interpersonal traits and perceived social support. More importantly, some unique findings seem to emerge from the present study. For example, no western personality trait similar to the indigenous Chinese interpersonal trait–interpersonal flexibility has been found to be correlated with perceived social support across time. Interpersonal flexibility, which emphasizes both solving interpersonal problems and satisfying other people in social contacts, reflects Chinese culture and may be ignored in present Western literature (Xia et al. 2014a; Xia et al. 2013b; Xia et al. 2014b). Thus, this result may reflect the function of culture influence and support the notion that Western personality structure may be complemented by the interpersonal traits derived from non-Western culture (Cheung et al. 2011). This result suggests that certain functions of some indigenous interpersonal traits may exist beyond the traits derived from Western personality theories. Additionally, those indigenous interpersonal traits may complement the current personality structure model. Of course, the present result warrants replication in western samples to see whether this finding is unique to China or can extend to other cultures.

Although four of the five ISS traits including interpersonal initiative, interpersonal openness, interpersonal responsibility, and interpersonal flexibility were associated with enacted and perceived social support in a cross-sectional survey (Xia et al. 2012b), only two of them (interpersonal initiative and interpersonal flexibility) emerged in this longitudinal relation model. Interpersonal initiative and interpersonal flexibility may be more important to perceived social support than the other three ISS traits. Of course, this speculation needs repetition.

Moreover, the results as to whether such environmental variable as enacted social support could account for perceived social support effects have been inconsistent. Weak relation or even no relation linking to enacted social support and perceived social support was indicated in some studies (e.g. Belsher and Costello 1991; Lakey and Drew 1997; Lakey and Heller 1988). However, others (Collins and Feeney 2004; Sarason et al. 1992) argued that perception of social support appears to rely, at least in part, on objective supportive transactions. Our research supported the latter viewpoint, and indicated that enacted social support was correlated with perceived social support across time.

Limitations and Future Directions

Several limitations of this research should also be acknowledged, which need to be addressed in future research. First, though longitudinal design could provide causal directions, it still cannot rule out possible third variables in accounting the results, and thus do not allow any casual conclusions. Therefore, drawing from what Asendorpf and van Aken (2003) had done, such terms as ‘effect’ or ‘influence’ and its likes used in this study were limited to a statistical level instead of a theoretical causal conclusion. Additionally, further research needs to employ experiment design. Second, the autoregressive effects were not well controlled in the present study and the future studies would benefit from the use of cross-lagged panel SEMs in exploring the relationship between Time 1 ISS traits and Time 2 social support. Third, only two waves of data collection limited any strong causal inference. More waves and longer time intervals (e.g., years instead of months) are needed in future research. Fourth, the data in the present study were not met multivariate normality, and the results of the present studies should be replicated in another sample. Finally, due to this concern, only enacted social support was included as mediator in our hypothesized model. However more potential mediators such as emotion affects and interpersonal relationship (Lakey et al. 1996) should need to be considered. Thus, the mechanism underlying the interpersonal traits–perceived social support relation needs further elucidation.

Conclusions and Implications

This study focuses on the relationship between interpersonal traits and perceived social support over time as well as the underlying interpersonal mechanism. The results indicated that interpersonal flexibility and interpersonal initiative were related to perceived social support indirectly and directly, and that the indirect relationships are mediated via enacted social support. The present results suggested that interpersonal traits may be correlated with perceived social support through temperamental and instrumental paths (i.e. enacted social support), and different interpersonal traits may be related with perceived social support through different mechanisms. Future studies should test the relationship model of interpersonal traits and perceived social support and the two underlying mechanisms using other interpersonal traits. In addition, our findings suggest that a Chinese indigenous interpersonal trait– interpersonal flexibility may be a new interpersonal trait related to perceived social support. Future studies warrant exploring the unique functions of indigenous interpersonal traits on perceived social support and whether there are some unique mechanisms underlying the relationship between indigenous interpersonal traits and perceived social support warrants exploring in the future.

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