

Core Self-Evaluations Mediators of the Influence of Social Support on Job Involvement in Hospital Nurses

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Abstract The primary goal of this study was to explore the influence of social support on job involvement and investigate the mediating effect of core self-evaluations on this relationship. A total of 330 participants who are all women completed a battery of questionnaires that assessed social support, core self-evaluations and job involvement. Data were collected by using the Core self-evaluations scale, Social support rating scale and Utrecht work engagement scale. The results indicated that both social support and core self-evaluations were significantly associated with the job involvement. Path analysis (AMOS) showed that core self-evaluations partially mediated the relationship between social support and job involvement. The final model also revealed a significant path from social support through core self-evaluations to job involvement. Limitations of the study are considered and implications of the results for promotion of nurses' job involvement.

Keywords Social support · Core self-evaluations · Job involvement

1 Introduction

The subjective well-being (SWB) has been an important area of research in positive psychology and also received considerable attention in occupational health, which reflects individuals' affective and cognitive evaluations of their lives. Within the organization science, job involvement has been thought to play a key role in the lives of employees (Markku 1997; Castro 1987; Gechman and Wiener 1975), which is probably the most common and one of the oldest operationalizations of workplace well-being.

The job involvement has emerged over the years as an important motivational variable for any organization (Liao and Lee 2009) and received considerable attention in

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organizational research. It reflects a stable attitude independent of satisfaction emerged from a factor-analytic study of interview protocols (Lodahl 1964). Job involvement is defined as a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication and absorption (Schaufeli et al. 2001, 2002). It is importance in that it is most important and essential component of work behavior among the workforce as prior research proved this phenomenon (Manojlovich et al. 2002). It was highlighted that by giving employees power over their work content (i.e. decision regarding swiftness of work, quality of product and resources and job related abilities) can motivate the employees to enhance their job involvement.

One of the importance personality variables factors of the job involvement in employees is social support. Social support is defined as a composite concept including attachment/intimacy, social integration, nurturance; reassurance of worth and availability of assistance (Weinert 2003). It is a basic human need and a critical factor of health outcomes. The presence of social support plays an important role in achieving positive behavioral outcome, whereas lack of social support can potentially lead to negative behavior outcomes. There is a long history in organizational research which has examined the relationship between social support and job involvement. Previous studies have shown that there was a significant correlation between social support and job involvement. (e.g., Vinokur and van Ryn 1993; Lakey and Orehek 2011; Seiger and Wiese 2011). For example, Mishra and Shyam (2005) indicated that overall social support is a significant predictor of job involvement in prison officers. The pattern of supportive exchange (i.e., reciprocal, under-, or over-reciprocating) determines the impact of receiving support on well-being (Nahum-Shani et al. 2011), indicating that receiving emotional support is associated with enhanced well-being when the pattern of supportive exchange is perceived by an individual as being reciprocal (support received equals support given), with this association being weaker when the exchange of support is perceived as being under-reciprocating (support given exceeds support received). Whereas the literature is clear that social support is related job involvement or well-being, far less is known about the mechanisms involved.

In addition to the direct associations, a series of studies have further showed mediators to explain underlying mechanisms of the relationship between social support and job involvement. Mediators refer to variables that establish how or why one variable predicts or causes an outcome variable (Frazier et al. 2004). That means that a mediator is the mechanism through which a predictor influences an outcome variable (Baron and Kenny 1986), providing useful information regarding psychological intervention for practicing psychologists.

A likely candidate to mediate the relationship between social support and variables of job including job involvement or job performance is personality. First, it is a robust finding that high job involvement or job performance in employees is also due to their low core self-evaluations (e.g., Grant and Wrzesniewski 2010; Erez and Judge 2001; Shorbaji et al. 2011; Kacmar et al. 2009). People with higher core self-evaluations received higher performance ratings in favorable environments (Kacmar et al. 2009) and contributed to higher job satisfaction and growth of job satisfaction (Wu and Griffin 2012), indicating that core self-evaluations is possible prediction in the outcomes of job involvement and performance. Some researchers also indicated evidence that personality is related to social support (Krause and Liang 1990; Caldwell and Reinhart 1988). The combined observations of personality's relation with both social support and job involvement or job performance support the idea that personality might mediate the relation between social support and job involvement. Furthermore, it should be mentioned that personality has been found to mediate the relationship between social support and a series of other job attitudes and

mental health (e.g. Krzysztof Kaniasty 2012; Jimmieson et al. 2010). Thus, as an important personality, we proposed that core self-evaluations is a mediating variable in the relationship between social support and job involvement by hypothesizing that core self-evaluations would mediate the relationship social support and job involvement so that the more extensive employees' social support is, the more core self-evaluations will be resulting in an increase in their display of job involvement. In this case, further investigation can be explored. First of all, there are not many studies around considering core self-evaluations in one study, examining its' associations with both social support and job attitudes, especially with social support and job involvement. Second, a noteworthy deficiency in the social support and job involvement literature is that the majority of the studies were executed within Western countries. Testing the mediation models in an Asian culture, especially in Chinese culture would provide meaningful evidence for the external validity. Taken together, the present study tested the mediation effects of core self-evaluations between social support and job involvement in Chinese hospital nurses.

2 Method

2.1 Participants and Procedure

Data from 333 nurses from two hospitals in China were used in the present study. The participants are all women. The nurses job tenure ranged in age from 1 to 25 with an average of 5.01(SD = 3.73).

Participants completed the questionnaires in the classroom environment. Informed consent was obtained by all nurses before completing the measures. Participants did not place their names on the measures and were confident of the confidentiality of their responses. Instruments took approximately 25 min to complete.

2.2 Instruments

2.2.1 Core Self-Evaluations Scale (CSES)

The Core Self-evaluations Scale (CSES), developed by Judge et al. (2003), is a 12-item self-report measure of core self-measure. Items are rated from 1(strongly disagree) to 5(strongly agree). The scores can range from 12 (low level of core self-evaluations) to 60 (high level of core self-evaluations). Examples of items include: "I am confident I get the success I deserve in life."; "Sometimes when I fail I feel worthless." Scale scores are the sum of items with reverse coding of relevant items. In the present study, the Cronbach alpha coefficient for the CSES was 0.76.

2.2.2 Chinese Social Support Rating Scale (CSSRS)

The Chinese Social Support Rating Scale (CSSRS), developed by (Wang et al. 1999) was based on the unique environmental and cultural conditions in China. The scale consists of 10 items to assess subjective support, objective support and utilization of support. The total score for the 10 items was used as the measure of current total social support status. The scale has been proved to have good validity and reliability (Wang et al. 1999). In the present study, the Cronbach alpha coefficient for the CSSRS was 0.66.

2.2.3 Utrecht Work Engagement Scale (UWES)

The Utrecht Work Engagement Scale (UWES), developed by Schaufeli et al. (2002) to measure the job involvement of nurses. The UWES consists of 17 items designed to assess vigor (VI), dedication (DE) and absorption (AB). Responses to each item are given on a seven—point Likert-type scale ranging from 0 (never) to 6 (always). Examples of items used were “At my work, I feel bursting with energy”; “My job inspires me”; “Time flies when I am studying.” In the present study, the alpha reliability was 0.87 for 17 items of job involvement.

2.3 Data Analysis

The two-step procedure introduced by Anderson and Gerbing (1988) was used to analyses the mediation effects. The measurement model was first tested to assess the extent to which each of the three latent variables was represented by its indicators. If the measurement model was accepted, then test the structural model using the maximum likelihood estimation in AMOS 7.0 program. In order to control for inflated measurement errors due to multiple item for the latent variable, three item parcels were created for core self-evaluations. Due to the unequal numbers of items in each parcel, the average scores of the items were used. The following four indices were used to evaluate the goodness of fit of the model (Hu and Bentler 1999 and Kline 2005): Chi-square statistic (χ^2), χ^2/df , the Standardized Root Mean Square Residual (SRMR); the Root Mean Square Error of Approximation (RMSEA), and the Comparative Fit Index (CFI). Throughout the study, a model was considered to have a good fit if all the path coefficients were significant at the 0.05, χ^2 insignificant, $\chi^2/df < 2$, SRMR was below 0.08, RMSEA was below 0.05, and CFI was >0.95 .

3 Results

Intercorrelations of all variables included are presented in Table 1. All variables were significantly correlated in the predicted directions. The correlation of the social support on CSE is significant ($r = 0.171$, $P < 0.01$), social support and core self-evaluations are related to the three indications of job involvement ($r = 0.156$ – 0.457 , $P < 0.01$).

3.1 Measurement Model

The measurement model involved three latent constructs (social support, core self-evaluation, job involvement) and 9 observed variables. An initial test of the measurement model

Table 1 Inter- correlation for study variables (N = 333)

| | SS | CSE | DE | AB | VI |
|-----|---------|---------|---------|---------|----|
| SS | 1 | | | | |
| CSE | 0.171** | 1 | | | |
| DE | 0.239** | 0.457** | 1 | | |
| AB | 0.156** | 0.340** | 0.646** | 1 | |
| VI | 0.218** | 0.386** | 0.694** | 0.665** | 1 |

SS social support, CSE core self-evaluations, DE dedication, AB absorption, VI vigor

* $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$

generated a very good fit to the data: $\chi^2 = 55.65(24, 333)$, $P < 0.001$; RMSEA = 0.063; SRMR = 0.062; And CFI = 0.97. All the factor loadings for the indicators on the latent variables were significant ($P < 0.001$), indicating that all the latent constructs were well represented by their indicators.

3.2 Structural Model

The directly standardized path coefficient from the predictor (social support) to the criterion (job involvement) in the absence of mediators was significant, $\beta = 0.38$, $P < 0.001$. A partially-mediated model (Model 1) with mediators and a direct path from social support to job involvement revealed a not good fit to the data: $\chi^2(24, N = 333) = 55.222$, $P < 0.001$; RMSEA = 0.063; SRMR = 0.04; and CFI = 0.97. Examination of parameter estimates indicated that the path coefficients from social support to job involvement, from social support to core self-evaluations and from core self-evaluations to job involvement were all significant. Thus, according to the modification indices in the Model 1, the correlations between the residual terms of CSE2, CSE3 and DE and between the residual terms of O-SS and CSE3 were added to the partially-mediated model (Model 2).

After adding the correlations the residual terms, the final mediational model, as shown in Fig. 1, was analyzed. The final mediational model also exhibited a very good fit to the data, with the following indices: $\chi^2(21, N = 333) = 25.96$, $P = 0.208$; RMSEA = 0.027; SRMR = 0.03; and CFI = 0.995. Taken together, this result highlights the crucial role of core self-evaluations in the relation between social support and job involvement. Social support contributed to job involvement through core self-evaluations, indicating that nurses are more likely to use core self-evaluations, which may increase their job involvement. The effects of social support on job involvement via core self-evaluations is 38.5 %.

The mediating effect of core self-evaluations in the association between social support and job involvement was tested for a significance using the Bootstrap estimation procedure in AMOS (a bootstrap sample of 1,000 was specified). The basic principle for the bootstrapping approach is that the indirect effect estimates which are the products of direct effects generally do not follow the normal distribution. Thus, the standard error estimates and confidence intervals calculated based on the assumption of normal distribution will usually be imprecise, and it will be powerless for the statistical tests of indirect effect to be assumed on the normal distribution assumption (Mackinnon et al. 2004). Mackinnon et al. (2004) have suggested that the bootstrap method yields the most accurate confidence intervals for indirect effects. Table 2 shows the indirect effects and their associated 95 % confidence intervals. As shown in Table 2, social support exert significant direct effect on job involvement, the direct effect of social support on core self-evaluations is also significant and the effect of core self-evaluations on job involvement is significant. The indirect effect of social support on job involvement via core self-evaluations is also significant.

4 Discussion

The current study examined the mediator effect of core self-evaluations for the relationship between social support and job involvement in Chinese hospital nurses. As expected, the correlational findings of the study indicate that job involvement has a positive relationship with social support and a positive relationship with core self-evaluations. This result is in

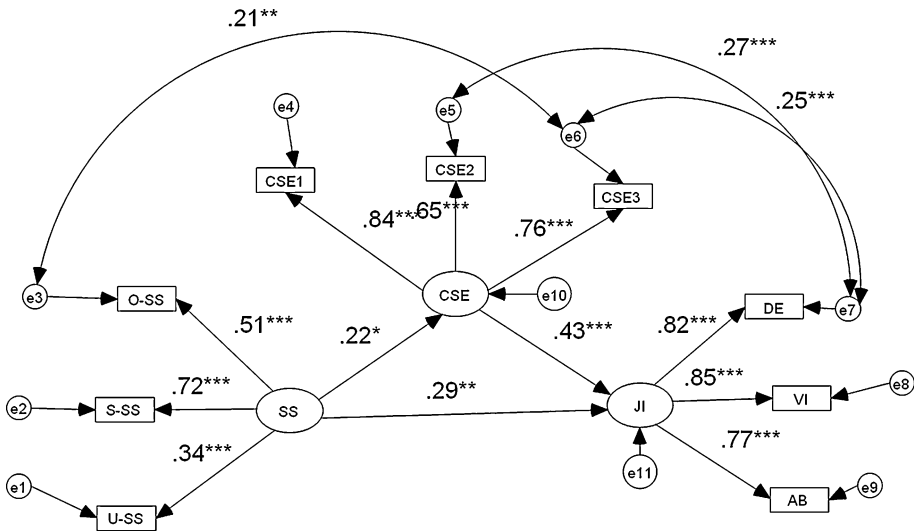


Fig. 1 The finalized structural model (N = 333). *Note* Factor loadings are standardized. CSE1-CSE3 = three parcels of core self-evaluations; O-SS objective support, S-SS subjective support, U-SS utilization of support; DE dedication, AB absorption, VI vigor, SS social support, CSE core self-evaluations, JI job involvement

Table 2 Direct and indirect effects and 95 % confidence intervals for the final meditational model

| Model pathways | Estimated effect | 95 % CI | |
|--|-------------------|--------------|--------------|
| | | Lower bounds | Upper bounds |
| Direct effects | | | |
| Social support—job involvement | 0.29 ^a | 0.14 | 0.42 |
| Social support—core self-evaluations | 0.22 ^a | 0.06 | 0.39 |
| Core self-evaluations—job involvement | 0.43 ^a | 0.29 | 0.55 |
| Indirect effects | | | |
| Social support—core self-evaluations—job involvement | 0.09 ^a | 0.02 | 0.18 |

^a Empirical 95 % confidence interval does not overlap with zero

accordance with previous studies reporting a relationship between job involvement and core self-evaluations, and social support (Adams et al. 1996).

In the present study, the results indicated that core self-evaluations was of importance in influencing job involvement. Hence, according to the advocates of positive psychology (Seligman et al. 2005), it is even more crucial that we focus on nurses’ core self-evaluations. It means that, to enhance nurses’ job involvement, we should adopt interventions that promote their core self-evaluations. Furthermore, path analyses showed that core self-evaluations functioned as a partial mediator between social support and job involvement. In other words, individuals high social support reported higher core self-evaluations than those low social support, which result in higher job involvement. This result is consistent with earlier studies reporting to core self-evaluations as a mediator between social support

and job involvement (Fuller et al. 2010; Barrick and Mount 1993). In order to enhance positive consequences, individuals will be stayed cleared from social support to strength their core self-evaluations, thereby enhancing their job involvement.

In conclusion, this study has provided some insight into the relationships between social support, core self-evaluations and job involvement. In particular, core self-evaluations acts as a protective factor by increasing feelings of core self-evaluations, which in turn has a beneficial effect on job involvement. Thus, to improve nurses' job involvement, we should adopt interventions primarily focusing on increasing their positive self-evaluations. The present study is certainly not without limitations. The first limitation is that the study's correlational cross-sectional nature prohibits drawing any causal relationships among the variables. Interpretation of the results of mediational analyses on cross-sectional data must always proceed with caution. Future longitudinal or experimental studies will facilitate more causal evaluations. The second limitation is that core self-evaluations was the only potential mediator that we examined in the present study even though there are certainly other mediators that are likely to play an important role in the relationship between social support and job involvement, other variables, such as job satisfaction, can be examined. The third limitation is that the data in this study were collected only through self-report scales. The use of multiple methods for evaluation (e.g., colleagues, and boss reports) may decrease the "subjectivity" limitation of the findings. The fourth limitation is that the nurses of the present study were all women. The fifth limitation is that the findings of the present study should be generalized only to Chinese nurse.

Despite its limitations, the present study considerably extends our insight into underlying mechanisms between social support and job involvement. The employment of Chinese nurses provided meaningful evidence for external validity for core self-evaluations mediated model in China. Additional, the significant path from social support through core self-evaluations to job involvement threw light on complex relationships among these variables. On this condition, it is probable that employing core self-evaluations improvement programs as an adaptive coping strategy could have a far reaching effect on hospitals nurses who are all women.

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