

# Chinese migrant children's mental health and career efficacy: the roles of mentoring relationship quality and self-efficacy

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## Abstract

The current study aimed to examine whether migrant children's relationship quality with mentors could make unique contributions in predicting their mental health and career efficacy, above and beyond the prediction from their relationship quality with parents. Based on social cognitive theory, it was also proposed that migrant children's self-efficacy beliefs may mediate the positive effects of mentoring relationship quality on career efficacy and mental health. A survey study was conducted among Chinese migrant children (n=114) who joined a mentorship program in Beijing, China. The results showed that after controlling for the effects of parent relationship quality, mentoring relationship quality made a unique contribution in predicting migrant children's career efficacy and mental health. In addition, path analysis revealed that the positive effects of mentoring relationship quality were fully mediated by children's self-efficacy beliefs. These results revealed the importance of a mentor-mentee relationship in migrant children's personal growth and provided preliminary evidence on the mechanisms underlying this process.

**Keywords:** career efficacy; mental health; mentoring relationship quality; mobile children.

## Introduction

The positive effects of mentorship programs on mentees' personal growth have been revealed by a fast growing literature (1–3); however, the underlying mechanisms of these effects have yet to be systematically investigated (4, 5). In the current study, we argued that mentoring relationship quality (MRQ) played a key role in promoting mentees' mental health and career efficacy. Moreover, from a social cognitive

perspective (6, 7), we further proposed mentees' general self-efficacy may serve as the mediator between mentoring relationship quality and outcome variables. A survey study was conducted among a sample of Chinese mentees to examine these ideas.

The ecological model of human development (8) argued that diverse ecological factors, such as families, schools, peers, and neighborhood, play important roles in children's personal growth and development. To promote children's positive development and reduce negative consequences caused by some risk factors (e.g., poverty), mentorship programs have been started and continually supported by governments worldwide. Some of the better known programs include the Big Brothers Big Sisters of America and International, MENTOR/National Mentoring Partnership (US), Mentoring Canada, Mentoring Europe, Mentoring and Befriending Foundation (UK), and Australian Youth Mentoring Network. More recently in Asia, the Singapore National Youth Council has initiated a similar effort (9). In Hong Kong, the SAR Government has announced the setting up of the HK\$300 Million Child Development Fund (CDF) targeted to build financial and non-financial assets in adolescents from disadvantaged backgrounds (10). A mentorship program is one of the three main components. Mentoring is understood as a way to assist adolescents to build non-financial assets such as the capacity for personal goal development, social networking, and a proper mindset. Adult mentors are matched with children through different mentorship programs and provide help in promoting mentees' mental health, career development, and other aspects of personal growth.

Previous research on the effects of mentorship programs and concluded that mentors promoted resilience among at-risk children and adolescents. Much research showed that at-risk children who have mentors, especially non-parental kin, exhibit fewer problem behaviors, more positive attitudes towards school, greater school efficacy, less marijuana use, less nonviolent delinquency, and lower levels of anxiety and depression (11).

According to Grossman and Rhodes (12), the formation of intensive mentor-mentee relationships served as the core factor in mentorship programs. Rhodes (13) further argued that MRQ is a pre-requisite for positive developmental outcomes for mentees. In a high-quality mentoring relationship, mentees will receive emotional support from mentors, have constructive conversations, and share meaningful activities with mentors. All these factors will promote social and emotional development in mentees. Consistently, we proposed that mentees' perceive MRQ will be positively related to their mental health and career efficacy. In addition, we further argued that

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mentees' general self-efficacy may serve as a mediator in this process, as discussed below.

### General self-efficacy as mediator

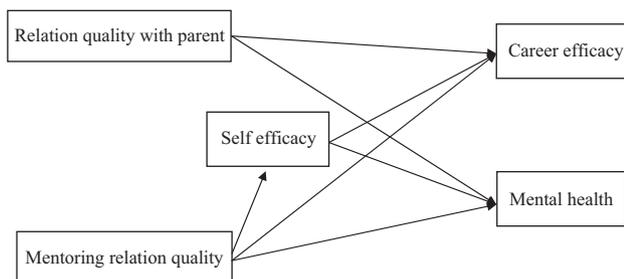
According to social cognitive theory (7), environments influence human behavior through mental processes of the self system. Self-efficacy, which was defined as a person's judgments of their capabilities for organizing and executing actions required to attain designated types of performances, was proposed as an important mediator between external influences and subsequent behaviors (6). People with high self-efficacy beliefs were proposed as more confident in the tasks they are engaged in and more resilient in difficult tasks.

Consistent with social cognitive theory, we argued that mentees' positive experience in the relationship with mentors may promote their general evaluations with their own capacities, which in turn may improve their judgments of their capabilities of and confidence in their career development, as well as their mental health. Therefore, we proposed that MRQ will be related to children's mental health and career efficacy, through the mediation of self-efficacy (Figure 1).

The current study was conducted in a Chinese context. In the Chinese Mainland, 10% of the population are migrants from rural areas to urban areas and 12% of the migrants are children. These children have very limited social, economic, and educational resources and often experience high-risk factors in their personal growth and development. A mentorship program was initiated in Beijing in March 2009 and lasted for 1 year. The 160 mentees participants of this program were matched with 160 college students from six universities in Beijing. Based on the above arguments, seven hypotheses were examined among mentees' of this program.

### Hypotheses

- First, perceived relationship quality with parents will be positively related to children's mental health.
- Second, perceived relationship quality with parents will be positively related to children's career efficacy.
- Third, perceived mentoring relationship quality will be positively related to children's mental health.



**Figure 1** Hypothesized model on the relationships among relationship quality with parent, mentoring relationship quality, self efficacy, career efficacy, and mental health.

- Fourth, perceived mentoring relationship quality will be positively related to children's career efficacy.
- Fifth, perceived mentoring relationship quality will be positively related to children's general self-efficacy.
- Sixth, general self-efficacy will be positively related to children's mental health.
- Seventh, general self-efficacy will be positively related to children's career efficacy.

## Methods

### Participants and procedures

Data were collected among migrant children who joined the mentorship program. The questionnaires were distributed among migrant children and they were asked to complete it independently and carefully according to their experience in the mentorship program. After they finished the questionnaire, research assistants collected the questionnaires from them. One hundred and fourteen migrant children (48 males and 64 females) provided valid data for the study. Their average age was 15.00 (SD=1.72). Two participants did not indicate their gender and three participants did not indicate their age.

### Instruments

**Mentoring relationship quality** Perceived MRQ was measured by 60 items adopted from previous research (13, 14), each rated along a 5-point, Likert-type scale ranging from 1 ("strongly disagree" or "never") to 5 ("strongly agree" or "very often"). Sample items were "I feel excited when I'm with the mentor" and "I talk and share opinions with my mentor". Previous research had demonstrated that mentoring relationship quality was positively related to positive career development among at-risk groups (14). In this study, these items produced a Cronbach  $\alpha$  of 0.92, so the mean of these items was computed as the participant's perceived mentoring relationship quality.

**Relationship quality with parents** Perceived relationship quality with parents was measured by 18 items adopted from previous research (15), each rated along a 4-point Likert-type scale ranging from 1 ("strongly disagree") to 4 ("strongly agree"). Sample items were "I wish my parents could spend more time with me" (reverse coded) and "I feel myself important when I'm with my parents". Previous studies showed that this scale has good reliability and validity (16). In this study, these items produced a Cronbach  $\alpha$  of 0.85, so the mean of these items was computed as the participant's perceived parent relationship quality.

**Self efficacy** Self efficacy was measured by 10 items adopted from previous studies (17), each rated along a 4-point Likert-type scale ranging from 1 ("strongly disagree") to 4 ("strongly agree"). Previous studies showed that this scale has good reliability and validity (17). A sample item was "If I try my best, I will resolve problems in my life". In this study, these items produced a Cronbach  $\alpha$  of 0.86, so the mean of these items was computed as the participant's self-efficacy beliefs.

**Career efficacy** Career efficacy was measured by four items adopted from career-related self-efficacy scale (18), and measured along a 7-point Likert-type scales ranging from 1 ("strongly

unconfident”) to 7 (“strongly confident”): “balance between my interests and my future”; “explore different possibilities among my interests”; “understand my own ability and help myself to explore future career”; “select appropriate courses in technique schools to prepare for future career”. The scale has good reliability and validity, as reported in previous research (19). In this study, these four items produced a Cronbach  $\alpha$  of 0.85, so the mean of these three items was computed as the participant’s career efficacy.

**Mental health** The Chinese version of the General Health Questionnaire-12 (GHQ-12) was used to measure students’ general psychological well-being in the past month. GHQ-12 is good for general purposes in a normal population because items endorsed by physically ill respondents were removed (20). Good psychometric properties of GHQ in adolescents were demonstrated by Shek and colleagues (21, 22), including those with economic difficulties (23). Respondents indicated on a 4-point scale (1=less so than usual; 4=much more than usual) whether they had experienced each of the 12 symptoms or behaviors during the last month. All the scores on the negative symptoms or behaviors were reversed to obtain the general health variable, with higher score implies better general health. The uni-dimensional structure of GHQ-12 in Chinese was supported (24). The Cronbach  $\alpha$  in this sample was 0.79 so the mean of these items was computed as the participant’s mental health score.

## Results

### Descriptives and inter-correlations among variables

The descriptive statistics and correlations among variables are shown in Table 1. The results showed that perceived relationship quality with parents was positively related to children’s career efficacy [ $r(113)=0.33, p<0.001$ ] and mental health [ $r(114)=0.20, p<0.05$ ]. Perceived mentoring relationship quality (MRQ) was positively related to children’s career efficacy [ $r(113)=0.35, p<0.001$ ] and mental health [ $r(114)=0.31, p<0.01$ ], and self-efficacy [ $r(114)=0.43, p<0.001$ ]. Self-efficacy was positive related to career efficacy [ $r(113)=0.53, p<0.001$ ] and mental health [ $r(114)=0.40, p<0.001$ ].

### Regression analysis

Hierarchical regression was also conducted to examine the unique contributions of MRQ in predicting outcome variables, after controlling for the effects of relationship quality with parents. Parent relationship quality was put into the first

block and MRQ was put into the second block. The results showed that MRQ predicted career efficacy ( $\beta=0.31, t=3.60, p<0.001$ ) and mental health ( $\beta=0.28, t=3.15, p<0.01$ ) after entering relationship quality with parent (Table 2).

### Path analysis

Path analysis was conducted to examine whether self-efficacy mediates the effects of MRQ on mental health and career efficacy. First, we tested the proposed partial mediation model by using EQS6.1. That is, we examined whether all the seven paths in the proposed model were significant, as we hypothesized. Model fit was assessed using the  $\chi^2$ -test statistic, the comparative-fit indexes (CFI), and the root mean square error of approximation (RMSEA; Byrne, 2001). According to Byrne (2001), we took  $\chi^2$  divided by  $df < 2$ , CFI larger than 0.90, and RMSEA  $< 0.08$  as the criteria of satisfactory model fit. The results showed that the fit indexes for the partial mediation model were satisfactory ( $\chi^2=2.80, df=3, CFI=0.99, RMSEA=0.08$ ) since values for the CFI was larger than 0.90, the RMSEA index was 0.08 and  $\chi^2/df=0.93$  was  $< 2$ .

The results also showed that five hypotheses were supported in this model: perceived relationship quality with parents was positively related to children’s mental health (Hypothesis 1); perceived relationship quality with parents was positively related to children’s career efficacy (Hypothesis 2); perceived mentoring relationship quality was positively related to children’s general self-efficacy (Hypothesis 5); general self-efficacy was positively related to children’s mental health (Hypothesis 6); general self-efficacy was positively related to children’s career efficacy (Hypothesis 7).

However, the path between MRQ and mental health (Hypothesis 3), as well the path between MRQ and career efficacy (Hypothesis 4) were both non-significant ( $p>0.05$ ). It’s likely that when adding general self-efficacy as the mediator, the effects of MRQ were fully mediated by self-efficacy and the direct effects were no longer significant. Thus, we proposed an alternative model in which self-efficacy fully mediated the relations between MRQ and the two outcome variables by dropping the path between MRQ and career efficacy, as well as the path between MRQ and mental health. The alternative model was tested by EQS 6.1 and the results showed that the fit indexes for the alternative model are also satisfactory ( $\chi^2=6.26, df=5, CFI=0.99, RMSEA=0.07$ ) and all the proposed paths were significant.

**Table 1** Descriptive statistics and correlations among variables.

	Mean	SD	1	2	3	4	5
Relationship quality with parent	3.42	0.46	1				
Mentoring relationship quality	3.69	0.39	0.14	1			
Self-efficacy	2.55	0.52	0.00	0.43 <sup>a</sup>	1		
Career efficacy	4.25	0.95	0.33 <sup>a</sup>	0.35 <sup>a</sup>	0.53 <sup>a</sup>	1	
Mental health	2.71	0.44	0.20 <sup>b</sup>	0.30 <sup>c</sup>	0.40 <sup>a</sup>	0.25 <sup>c</sup>	1

<sup>a</sup>Correlation is significant at the 0.001 level 2-tailed. <sup>b</sup>Correlation is significant at the 0.05 level 2-tailed. <sup>c</sup>Correlation is significant at the 0.01 level 2-tailed.

**Table 2** Regression analysis: mentoring relationship quality as predictors of career efficacy and mental health.

Predictors	Career efficacy (n=113)		Mental health (n=114)	
	Step 1	Step 2	Step 1	Step 2
Relationship quality with parent	0.33 <sup>a</sup>	0.29 <sup>b</sup>	0.20 <sup>c</sup>	0.16
Mentoring relationship quality		0.31 <sup>a</sup>		0.28 <sup>b</sup>
R <sup>2</sup>	0.10	0.19	0.03	0.10
F	13.54 <sup>a,d</sup>	14.00 <sup>a,c</sup>	4.52 <sup>c,f</sup>	7.39 <sup>b,g</sup>
ΔR <sup>2</sup>		0.09 <sup>a</sup>	0.34 <sup>a</sup>	0.07 <sup>b</sup>

The coefficients are standardized beta weights. <sup>a</sup>p<0.001; <sup>b</sup>p<0.01; <sup>c</sup>p<0.05; <sup>d</sup>df=1, 111; <sup>e</sup>df=2, 110; <sup>f</sup>df=1, 112; <sup>g</sup>df=2, 111.

We then directly compared the fit indexes of the two models by using  $\chi^2$ -test. The results showed that the partial mediation model did not fit the data significantly better ( $\Delta\chi^2=3.46$ ,  $df=2$ ,  $p>0.05$ ) than the full mediation model. Therefore, the parsimonious full mediation model was selected as the final model (Figure 2).

**Discussion**

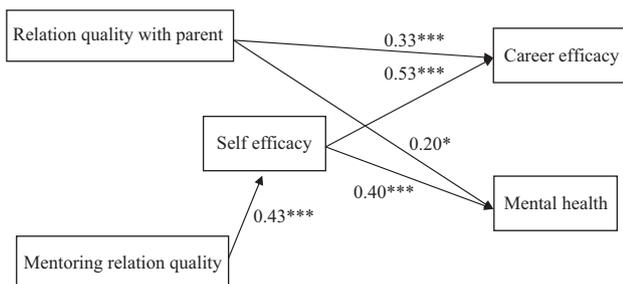
The current study aimed to examine the effects of mentoring relationship quality in children’s mental health and career efficacy, as well as the mediation role of self-efficacy in this process. The results generally supported our hypotheses: after controlling for the effects of relationship quality with parents, mentor relationship quality (MRQ) made unique contributions in predicting migrant children’s career efficacy and mental health. In addition, path analysis revealed that the positive effects of mentor relationship quality were fully mediated by children’s self-efficacy beliefs. These results carry some theoretical implications on how mentorship programs facilitate children’s growth and development.

Compared with their peers, migrant children in the Chinese Mainland often have relatively lower social status, less social support, and very limited educational resources; therefore migrant children face more risk factors earlier on in their life. The results of the current study showed that mentoring relationships provided positive intervention for children in this context by promoting their mental health and career efficacy.

The findings corroborated with one of the most-cited models of mentoring by Rhodes (13) which suggested that MRQ plays a pre-requisite role for all these developments: (a) a close relationship with mentors can promote mentees’ social and emotional development, which can lead to improved self-esteem and social support; (b) meaningful and constructive conversations and shared activities between mentees and mentors can promote mentees’ cognitive development, evidenced in improved academic performance and attitudes; (c) mentees’ identity development, including reduced delinquent behaviors, can be promoted by positive role-modeling, and sharing by mentors of life and work experience.

A remaining questions is *how* mentoring relationships impact youth (3). The results of the present study also echo this question by showing that the quality of mentor relationship directly accounted for the variance of positive outcomes among migrant children. The mediation role of self-efficacy revealed in the current study suggests that the external influence of mentors may change the self system of mentees, which in turn may result in positive outcomes. The mentors in the current program were college students and they may be regarded as role models among mentees. The formation of positive relationship with mentors and the mentors’ sharing of their own experiences may promote mentees’ aspirations of being like their mentors in future. When mentees’ aspirations and confidence were enhanced, they may experience more positive emotions and have higher confidence in their future career development. In sum, these findings provided a preliminary explanation of how mentorship programs shape mentees’ mindset about themselves and their future development.

However, the current study also has shortcomings, which should be addressed in future research. First, although this study related the positive outcomes among children with mentoring relationship quality, it could not reveal a causal relationship between these variables. It is also possible that mentees who have higher level of mental health and career efficacy formed more positive impressions of their relationship with mentors. However, previous longitudinal studies have demonstrated the positive effects of mentorship programs on children’s personal development, which to some extent supports the strength of the current study. More research needs to be done in the future to examine the causal relations among these variables included in the current study.



**Figure 2** Final model on the relationships among relationship quality with parent, mentoring relationship quality, self efficacy, career efficacy, and mental health.

Second, this study used self-report measures exclusively, which may cause the common method variance problem (25). To reduce this confounding effect, we asked participants to answer all the questions independently and carefully. Future research may confirm the findings in our study by using multiple methods to collect data, including personal interviews and focus group discussions.

Third, we only included two outcome variables in the current study and whether similar results will be obtained by using other outcome variables (e.g., risk-taking behaviors) still remains to be discovered in future research. In addition, the amount of variance that can be explained by the different models is not high; it is highly probable that the relations in the current study may be moderated by individual differences and contextual factors. We know from literature that MRQ changes over time. As follow-up data become available, these should be subjected to the above analysis framework for stability of the relations. Other analysis frameworks such as the panel design models should also be investigated in future research.

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## Conflict of interest statement

**Authors' conflict of interest disclosure:** The authors stated that there are no conflicts of interest regarding the publication of this article. Research funding played no role in the study design; in the collection, analysis, and interpretation of data; in the writing of the report; or in the decision to submit the report for publication.

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