



Increasing Work Performance of Chinese Expatriates in the MENA: The effects of Cultural Intelligence, Grit, and Basic Psychological Needs Satisfaction

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Abstract. This study explored the mechanism of cultural intelligence's impact on increasing work performance (work engagement, task performance, job satisfaction and turnover intention) of Chinese expatriates working in the Middle East and North Africa (the MENA) by introducing basic psychological need satisfaction and grit as mediating and moderating role respectively. Data comes from an online survey distributed to 319 Chinese expatriates working in the MENA. The results show that CQ significantly and positively predicted work engagement, task performance and job satisfaction. Basic psychological need satisfaction acts as mediating factor in the mechanism of CQ's influence on increasing work performance. However, only when Chinese expatriates working in the MENA score high in the perseverance of efforts, one dimension of grit, CQ can promote work performance by satisfying their basic psychological needs.

Keywords: Cultural intelligence, grit, basic psychological need satisfaction, work performance, Chinese expatriates working in the MENA.

1 Introduction

Accompanying the emergence of new paradigm of globalization, the interactions between China and the Middle East and North Africa (MENA) is increasingly frequent. An increasing number of Chinese go to the MENA to work. As expatriates, they interact with colleagues and clients who have great diverse background (Livermore et al., 2022) [15]. In the MENA, the geopolitics is complex, religions, cultural traditions and social customs are unique, but the social atmosphere is relatively closed and traditional. All of these characteristics of the MENA poses great challenges for Chinese expatriates in adapting to local culture, life and work. Furthermore, expatriates are vulnerable to experience anxiety, stress and other negative emotions when facing difficulties brought by cultural diversities, which can further make them dissatisfied with their expatriate assignment and yield the tendency to resign from their job (Hsiao et al., 2020) [9].

Previous research indicates that cultural intelligence (CQ) is the force of an individual effectively working and living in intercultural environments (Fu & Charoensukmongkol, 2023[7]; Min et al., 2023[16]; Presbitero, 2024[18]) and a crucial factor in predicting expatriates' performance at work (Schlaegel et al., 2021) [21] such as increased work engagement (Yang, 2023)[24], job satisfaction (Lam et al., 2022) [12] and task performance (Yikilmaz et al., 2021) [25] as well as decreased turnover intentions (e.g., Ratasuk, 2022 [19]; Almazrouei & Zacca, 2021[2]). However, these studies generally focus on expatriates in specific companies or industries. Additionally, previous research typically focuses on one aspect of work performance and rarely comprehensively examines the predictive role of CQ on a range of work performance. As a result, this study is geared to examine the correlation of CQ and the work performance mentioned above among the Chinese working in the MENA.

Moreover, for Chinese working in the MENA, the way by which CQ influences work performance remains unclear. Self-Determined-Theory, known as SDT, posits that satisfying the needs of competence, autonomy, and relatedness can benefit individuals' growth, development, and well-being, and satisfying the three needs would inspire individuals' intrinsic motivations and further promote them to perform better in work and life. In this study, we propose that Chinese expatriates working in the MENA also have these inherent basic psychological needs. Therefore, the second goal of this research is to introduce basic psychological need satisfaction to reveal why CQ can lead to desirable work performance.

Nevertheless, we propose grit, as a character strength, enabling Chinese expatriates working in the MENA to strive towards work goals with perseverance and passion in face of adversity so that they are more capable of utilizing CQ to satisfy their basic psychological needs and perform better at work. Thirdly, the research aims to introduce grit, a character strength, to explore the boundary conditions of the mechanism through which CQ promotes work performance via basic psychological need satisfaction among Chinese working in the MENA.

In summary, by concentrating on Chinese expatriates working in the MENA, we will explore underlying mechanism of their CQ's influence on work performance. In addition, basic psychological need satisfaction is introduced to reveal the mechanism underlying this relationship. Furthermore, we include grit to examine the boundary conditions for this mechanism.

2 Literature Review and Hypothesis Development

2.1 Cultural Intelligence

Cultural intelligence (CQ) refers to individuals' ability of functioning and performing effectively in diverse cultural environments". Meta-cognitive, cognitive, motivational, and behavioral dimensions are the four key components of CQ, regarding how to manage intercultural interactions across different races, ethnicities, and nationalities. Specially, meta-cognitive CQ reflects the mental process of an individual to obtain and understand cultural knowledge. Cognitive CQ means that an individual knows well about cultural environment. Motivational CQ is an individual's inherent interest and

self-efficacy in intercultural adaptation. Finally, behavioral CQ refers to an individual's capability of speaking and acting appropriately when contacting with people in cross culture settings.

The above characteristics of CQ make it effectively help expatriates have better work perform in the host country. As prior research shows, CQ can serve as a kind of personal resource that can motivate expatriates to participate in their work with a positive and full psychological state, thus promoting their work engagement (Yang, 2023) [24] and further leading to good task performance (Yikilmaz et al., 2021) [25]. In addition, high CQ can help expatriates to effectively adapt to unfamiliar environments and overcome problems caused by cultural diversities, thereby reducing job dissatisfaction (Lam et al., 2024) [13] and turnover intention (e.g., Ratasuk, 2022 [19]; Almazrouei & Zacca, 2021[2]). Accordingly, we also expect CQ can promote work performance of Chinese people working in the MENA and we propose the first hypothesis:

H1: Cultural intelligence of Chinese working in the MENA is closely related with their work performance. Specifically, their CQ has a positive correlation with work engagement (H1a), task performance(H1b) and job satisfaction(H1c), while negatively related with turnover intention(H1d).

2.2 The Mediating role of Basic Psychological Needs Satisfaction

People have three basic psychological needs, i.e., competence, autonomy, and relatedness from SDT perspective. Satisfying the three needs is beneficiary for people's psychological growth and well-being. Research shows that the satisfaction also influences people's sensations and behavior (Ahn, Chiu, & Patrick, 2021) [1], specifically satisfying certain needs will improve the satisfaction of other needs (Granjo, Silva & Peixoto, 2021) [8]. According to SDT, satisfaction of these three needs enables individuals to internalize their existing values and regulating processes, thereby promoting their self-motivation and effective functioning. Similarly, if expatriates' basic psychological need can be satisfied at work, they can exhibit good adaption to the new environment and achieve sound work performance. Chong, Beenen, Gagné & Dunlop, 2021[5] indicates that SDT is a valuable theoretical framework for researchers to study newcomers' adjustment in an unfamiliar situation. In the work scenario, the basic psychological need satisfaction also inspires individuals' work motivation, improve their devotion to work and job satisfaction while reduce their turnover intentions.

For Chinese expatriates working in the MENA, they have to face huge challenges resulted from cultural differences between China and the host country. Individuals will understand local culture more effectively if they have high level of CQ, thereby working positively and compassionately with people coming from diverse cultures, which can further have their basic psychological need satisfied, and result in psychological well-being and desirable work performance. Moreover, each dimension of CQ may also facilitate the satisfaction of basic psychological need.

Drawing on the above discussion, we put forward that when facing complex culture in the MENA, Chinese expatriates, who can understand the nuances of different cultures, handle the new situations with ease, and quickly resolve conflicts, usually have high level of CQ. Therefore, the excellent capability of CQ can contribute to a good

psychological and sociocultural adaptation and satisfy their basic psychological needs. Furthermore, they can performance better at work, leading to increased work engagement, task performance, job satisfaction and decreased turnover intention. Therefore, our second hypothesis is as following:

H2: Psychological need satisfaction is the mediating factor in the relation of CQ and work performance of Chinese expatriates working in the MENA. Specifically, CQ of Chinese expatriate in the MENA has positive correlation with work engagement (H2a), task performance (H2b), and job satisfaction (H2c), and negative correlation with turnover intention (H2d) via psychological need satisfaction.

2.3 The Moderating Role of Grit

Grit is a character force and widely accepted by psychologists and practitioners. Researchers conceptualize grit as “perseverance and passion for long-term objects”. The concept has two dimensions: perseverance of effort (POE) and consistency of interest (COI). POE reflects individuals’ sustained effort put forth to achieve their long-term goals even facing hard situations and frustrations, and consistency of interest reflects the maintenance of passion for an explicit interest or target over a long period (Duckworth et al., 2007) [6]. Considerable studies indicated that the higher level of grit the better accomplishments an individual can have, such as academic achievements and work performance (e.g., Duckworth et al., 2007[6]; Lam & Zhou, 2022[11]). Moreover, the grit individual can also maintain a good psychological condition during their goals pursuit since grit enables them to positively cope with difficulties and challenges with intrinsic passion and motivations.

Accordingly, we hypothesize that when Chinese expatriates working in the MENA face the complex work environment, grit can enhance the effectiveness of CQ, leading to greater sense of autonomy, competence, and relatedness, as a result, making their basic psychological needs satisfied. Moreover, if Chinese expatriates are perseverant in pursuing their long-term work goals in the MENA, they will accumulate more personal resources and gain higher motivations to utilize their CQ to cope with adverse conditions, thus promoting the basic psychological need satisfaction. Conversely, if Chinese expatriates working in the MENA cannot sustain their efforts and passion during the work goal pursuit, they will lack personal resources and intrinsic motivations to continuously satisfy their basic psychological needs even they are high in CQ. Thus, the third hypothesis of our study is:

H3: Grit moderates the relation between CQ and basic psychological need satisfaction of Chinese expatriates working in the MENA. Specifically, compared to those with low level of grit, CQ has positive effect on basic psychological need satisfaction among expatriates who has high levels of grit.

Combining Hypothesis 2 and Hypothesis 3, we suppose that CQ can facilitate basic psychological need satisfaction among Chinese expatriates working in the MENA, thereby enhancing their work performance. Grit, as a character strength and personal resource, enables Chinese expatriates working in the MENA to leverage their CQ to more effectively adapt to the unfamiliar and complex work environment, thus contributing to desirable work performance. Therefore, our fourth hypothesis is as following:

H4: Grit moderates the indirect impact of basic psychological need satisfaction on the mechanism of CQ’s influence on work performance. Specifically, compared to Chinese expatriates working in the MENA with low levels of grit, the indirect impact of psychological need satisfaction on the mechanism of CQ’s influence on work engagement (H4a), task performance (H4b), job satisfaction (H4c), and turnover intention (H4d) is stronger among those with high levels of grit.

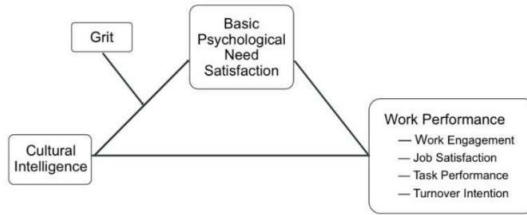


Fig. 1. The hypothesized model.

Fig.1. shows the hypothesis model of this research. As we mentioned before, grit is consisted of two facets: COI and POE. However, another analysis shows that the pivotal role of grit results from perseverance of effort. Lan and Radin (2020) [14] also examined grit’s moderating effect on the relationship between adolescent peer attachment and problem behaviors from grit’s two dimensions separately and reached different conclusion. Therefore, following previous studies (e.g., Song et al., 2023) [22], we explored grit’s the moderating role in the correlation between CQ and basic psychological need satisfaction by separating grit as perseverance of effort and consistency of interest.

3 Method

3.1 Participants and Procedures

This study’s data was obtained online via Wenjuanxing (<https://www.wjx.cn>) by distributing among Chinese expatriates working in the MENA through the "Girls Help Girls" community and local Chinese expatriates’ network. The survey, shown in Table 2., includes scales for CQ, basic psychological need satisfaction, grit, work performance (i.e., work engagement, job performance, job satisfaction and turnover intention), as well as demographic information as Table 1. shows. Data collection started on March 20, 2024, and concluded on April 14, 2024. A total 454 questionnaires were collected. After excluding invalid questionnaires based on completion time and overseas work duration, we collected 319 valid questionnaires and the effective response rate is 70%.

Table 1. Demographic Information (n = 319).

Item	Frequency	Rate (%)
Gender		
Male	156	48.9

Female	163	51.1
Age/ years		
<25	52	16.3
26-30	125	39.2
31-40	108	33.9
41-45	23	7.2
>45	11	3.4
Education		
3-year college or below	65	20.4
Bachelor	166	52.0
Master or above	88	27.6
Marital		
No partners (single, widowed, divorced)	158	49.5
Partners (married or cohabiting)	161	50.5
Children		
No	191	59.9
One	65	20.4
Two or above	63	19.7
Form of expatriation		
By company	150	47.0
Self-expatriated	169	53.0
Oversea work experience		
No	126	39.5
Yes	193	60.5
Fluency of local language		
Very non-fluency	67	21.0
Non-fluency	53	16.6
Average	156	48.9
Very fluency	43	13.5

3.2 Measurement and Scale

Table 2. Scale Information

Variables	Items	Author
Grit	12	Duckworth et al. (2007) [6]
Cultural intelligence	20	Ang et al. (2007) [3]
Basic psychological need satisfaction	9	La Guardia et al. (2000) [10]
Work engagement	9	Utrecht Work Engagement Scale Schaufeli et al. (2006) [20]
Job satisfaction	3	Michigan Organizational Assessment Scale Cammann et al. 1979 [4]
Task performance	7	Williams and Anderson 1991 [23]
Turnover intention	3	Mobley et al. (1978) [17]

4 Results

4.1 Descriptive Statistics and Correlation Analysis

Table 3 presents the descriptive statistics of the main variables in this study. The correlation analysis reveals, CQ was positively related to the basic psychological need satisfaction, work engagement, job satisfaction), task performance, and the basic psychological need satisfaction was positively related with work engagement, job satisfaction, task performance, but negatively related to turnover intention.

Table 3. Descriptive Statistics and Correlations of Main Variables (n = 319)

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
Cultural Intelligence	5.49	0.77	.91							
Perseverance of Effort	3.80	0.71	.29***	.74						
Consistency of Interest	2.89	0.81	.07	.13*	.75					
Psychological Need Satisfaction	3.74	0.63	.36***	.35***	.12	.85				
Work Engagement	3.83	1.24	.38***	.49**	.11*	.65**	.93			
Job Satisfaction	4.22	0.98	.26***	.33***	.21***	.57**	.61**	.67		
Turnover Intention	2.92	1.12	0.03	-0.10	-.36***	-.24*	-.27*	-.53***	.87	
Task Performance	3.93	0.55	.27***	.24***	.27***	.30**	.21**	.29***	-.25***	.69

Note. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; Cronbach's α s are depicted on the diagonal.

4.2 The Predictive Role of Cultural Intelligence on Work Performance

To examine the predictive role of CQ on work performance among Chinese expatriates working in the MENA, we conducted regression analyses by using CQ as the independent variable, work performance including work engagement, job satisfaction, task performance, and turnover intention as the dependent variables, and gender, age, marital status, education level, children status, dispatch status, overseas work experience, language fluency, tenure and overseas work duration as control variables. The results indicated that CQ positively and significantly predicted work engagement ($B = 0.54$, $SE = 0.09$, $p < 0.001$), task performance ($B = 0.18$, $SE = 0.04$, $p < 0.001$) and job satisfaction ($B = 0.29$, $SE = 0.07$, $p < 0.001$), but did not significantly predict turnover intention ($B = 0.10$, $SE = 0.09$, $p = 0.240$). Therefore, H1a, H1b, and H1c are supported, but H1d is not supported.

4.3 The Mediating Role of Basic Psychological Need Satisfaction

To examine the mediating role of psychological need satisfaction in the relationship between Chinese expatriates' CQ and their work performance, we conducted mediation analyses in SPSS PROCESS (Model 4) with CQ as the independent variable, psychological need satisfaction as the mediating variable, work performance, i.e., work engagement, task performance, job satisfaction, turnover intention as dependent variables, and gender, age, marital status, education level, children status, dispatch status, overseas work experience, language fluency, tenure, and overseas work duration as control variables. The results, as shown in Table 4 and Table 5, indicated that Chinese expatriates' CQ positively and significantly predicted their basic psychological need satisfaction ($B = 0.26$, $SE = 0.04$, $p < 0.001$); Psychological need satisfaction positively and significantly predicted work engagement ($B = 1.10$, $SE = 0.04$, $p < 0.001$), task performance ($B = 0.18$, $SE = 0.05$, $p < 0.001$), and job satisfaction ($B = 0.82$, $SE = 0.08$, $p < 0.001$), but negatively and significantly predicted turnover intention ($B = -0.47$, $SE = 0.11$, $p < 0.001$).

Table 4. The Regression Analysis for the Mediating Role of Basic Psychological Need Satisfaction (n=319)

Variables	Psychological Need Satisfaction		Work Engagement		Job Satisfaction		Task Performance		Turnover Intention	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
	Cultural Intelligence	0.26***	0.04	0.26***	0.07	0.07	0.48	0.13**	0.04	-0.22*
Psychological Need Satisfaction			1.10***	0.08	0.82***	0.08	0.18***	0.05	-0.47***	0.11
<i>F</i>		23.09***		23.09***		13.40**		7.69**		3.66***
<i>R</i> ²		0.47		0.48		0.34		0.23		0.13

Note. For the sake of brevity, the regression values of control variables were not listed in this Table; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 5. Mediating Effects of Psychological Need Satisfaction

Mediating Effects	<i>B</i>	<i>SE</i>	95% <i>CI</i>
Cultural Intelligence → Psychological Need Satisfaction → Work Engagement	0.29	0.06	[0.169, 0.421]
Cultural Intelligence → Psychological Need Satisfaction → Job Satisfaction	0.21	0.025	[0.126, 0.311]
Cultural Intelligence → Psychological Need Satisfaction → Task Performance	0.05	0.02	[0.021, 0.082]
Cultural Intelligence → Psychological Need Satisfaction → Turnover Intention	-0.12	0.04	[-0.208, -0.052]

4.4 The Moderating Role of Grit

To examine Hypothesis 3, we conducted moderation analyses in SPSS PROCESS (Model 1) with CQ as the independent variable, basic psychological need satisfaction as the dependent variable, and gender, age, marital status, education level, children status, dispatch status, overseas work experience, language fluency, tenure and overseas work duration as control variables, and the two dimensions of grit (perseverance of effort and consistency of interest) as moderators respectively. The results, as shown in Table 6 and Table 7, indicated that the interaction of CQ and perseverance of effort positively significantly predicted basic psychological need satisfaction ($B = 0.15$, $SE = 0.06$, $p < 0.05$), but the interaction of CQ and consistency of interest did not significantly predict psychological need satisfaction ($B = -0.05$, $SE = 0.05$, $p > 0.05$).

Table 6. The Moderating Effect Regression Analysis for Perseverance of Effort (n=319)

Variables	Psychological Need Satisfaction	
	<i>B</i>	<i>SE</i>
Cultural Intelligence	0.22	0.04
Perseverance of Effort	0.18	0.05
Cultural Intelligence × Perseverance of Effort	0.15**	0.06
<i>F</i>		8.57***
<i>R</i> ²		0.27

Note. For the sake of brevity, the regression values of control variables were not listed in this Table; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 7. The Moderating Effect Regression Analysis for Consistency of Interest (n=319)

Variables	Psychological need satisfaction	
	<i>B</i>	<i>SE</i>
Cultural Intelligence	0.26***	0.04
Consistency of Interest	0.01	0.04
Cultural Intelligence X Consistency of Interest	-0.05	0.05
<i>F</i>		6.45***
<i>R</i> ²		0.22

Note. For the sake of brevity, the regression values of control variables were not listed in this Table; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

To further examine the moderating role of perseverance of effort in the relationship between CQ and basic psychological need satisfaction, we conducted simple slope tests and plotted moderation effects. As shown in Fig. 2, when Chinese expatriates' perseverance of effort was high (+1 SD), the relationship between CQ and basic psychological need satisfaction was positive ($B = 0.33$, $SE = 0.06$, $p < 0.001$). However, when perseverance of effort is low (-1 SD), CQ did not significantly predict basic psychological need satisfaction ($B = 0.11$, $SE = 0.06$, $p > 0.05$). Therefore, hypothesis 3 was partially supported.

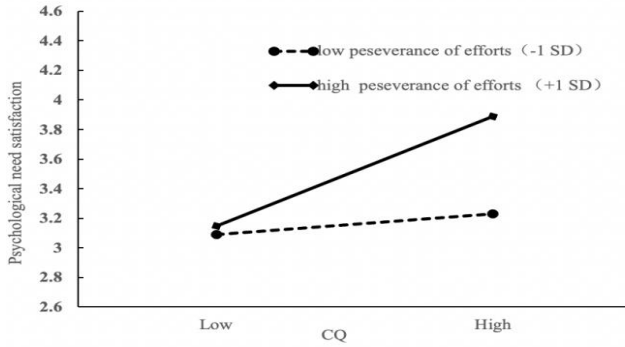


Fig. 2. Moderating Effect of Perseverance of Effort on the Relationship between Cultural Intelligence and Psychological Need Satisfaction.

4.5 The Moderated Mediation Analyses

To test Hypothesis 4, we conducted a series of moderated mediation analyses in SPSS PROCESS (Model 7) with CQ as the independent variable, basic psychological need satisfaction as the mediator, perseverance of effort as the moderator, work performance (work engagement, job satisfaction, task performance and turnover intention) as dependent variables, and gender, age, marital status, education level, children status, dispatch status, overseas work experience, language fluency, tenure and overseas work duration as control variables. The results were shown in Table 8. Specifically, when Chinese expatriates’ perseverance of effort was high (+1SD), the mediating role of psychological need satisfaction between CQ and work engagement/job satisfaction/task performance/turnover intention was significant, but when their perseverance of effort was low (-1SD), the mediating effect of psychological need satisfaction between CQ and work engagement/job satisfaction/task performance/turnover intention was not significant. That is, perseverance of effort moderated the indirect effects of basic psychological need satisfaction on the relationship between CQ and work performance. Therefore, H4a, H4b, H4c, and H4d were partially supported.

Table 8. Testing the Moderated Mediation Effects

The Mediating paths	Perseverance of Effort	Indirect Effect	95%CI
Cultural Intelligence→Psychological Need Satisfaction→Work Engagement	high(+1SD)	0.36	[0.179, 0.544]
	low(-1SD)	0.12	[-0.001, 0.263]
Cultural Intelligence→Psychological Need Satisfaction →Job Satisfaction	high(+1SD)	0.27	[0.141, 0.402]
	low(-1SD)	0.09	[-0.001, 0.200]
Cultural Intelligence→Psychological Need Satisfaction→Task Performance	high(+1SD)	0.33	[0.021, 0.082]
	low(-1SD)	0.11	[-0.005, 0.226]
Cultural Intelligence→ Psychological Need Satisfaction→Turnover Intention	high(+1SD)	-0.15	[-0.272, -0.058]
	low(-1SD)	-0.05	[-0.127, 0.001]

5 Discussion

5.1 Findings and Theoretical Implications

By concentrating on Chinese working in the MENA, this study explores how their CQ impact on their work performance. According to study, CQ influences work engagement, job satisfaction, and task performance positively. After introducing the basic psychological need satisfaction, CQ is found to enhance work engagement, job satisfaction and job performance, and reduces turnover intention by satisfying basic psychological need. This indicates that, among Chinese expatriates working in the MENA, the basic psychological need satisfaction mediates the relation between CQ and work performance. However, the indirect impacts of basic psychological need satisfaction are moderated by their perseverance of efforts, one dimension of grit. Specifically, when the expatriates score high in the perseverance of efforts, CQ can promote desirable work performance by satisfying their basic psychological needs. In contrast, when the expatriates score low in perseverance of efforts, basic psychological need satisfaction's indirect influence between CQ and desirable work performance is not significant.

The study represents the following three theoretical implications:

primarily, our research is the first to focus on Chinese expatriates working in the MENA to investigate the mechanism of how CQ impacts their work performance. Our study demonstrates that CQ can lead to desirable work performance and help to adapt to the MENA more quickly and achieve desirable work performance more easily.

Second, CQ contributes to basic psychological need satisfaction, leading to increased work engagement, job satisfaction, and task performance but reduced turnover intention. Notably, in this study, although CQ cannot directly predict turnover intention, it can reduce turnover intention via the basic psychological need satisfaction. This indicates that the Chinese expatriates more likely tend to resign from job in the MENA if they cannot make full use of CQ to make their basic psychological needs satisfied, which means introducing the basic psychological need satisfaction as an underlying mechanism is necessary and important.

Finally, we examined the moderating role of grit from its two aspects, i.e., POE and COI respectively, and the results show that only the perseverance of effort moderated the mediating process in which basic psychological need satisfaction acts on the relation between CQ and work performance. Specifically, for the Chinese expatriates with high perseverance of effort, CQ can promote their performance in work scenario by satisfying basic psychological need. However, for those with low perseverance of effort, CQ cannot function effectively. Hence, the moderating effect of consistency of interest is not salient in this research.

5.2 Practical Implications

Chinese expatriates working in the MENA can obtain inspiration from the study. First, Training sessions on CQ-related knowledge and skills to improve their CQ abilities is valuable for companies and self-initiated people. Second, both enterprises and individuals should focus on cultivating the character strength of grit, particularly perseverance

of effort. Finally, both enterprises and expatriates should emphasize the importance of basic psychological need satisfaction, which can directly enhance overseas work performance.

5.3 Limitations and Future Research

For further study, researchers can address in three aspects. Firstly, the current study only captures the status of Chinese expatriates working in the MENA at a certain time point. Follow-up research can conduct longitudinal studies to find out variables' correlation more deeply. Secondly, this study treated the Middle East and North Africa area as one region. Future research can conduct refined studies on the MENA based according to different development stages or secularization levels to obtain more instructive conclusions. Finally, this study used a convenience sampling which may result in sampling biases. Future research may adopt more precise sampling methods to improve the representativeness and generalizability of our findings.

6 Conclusion

In this study, we focus on Chinese expatriates working in the MENA. We explored how CQ impacts on work performance. Our results exhibit that CQ can promote work engagement, job satisfaction, and task performance while reducing turnover intention by satisfying Chinese expatriates' basic psychological needs satisfaction. However, this mechanism is subject to expatriates' differences in perseverance of effort, one dimension of grit. Specifically, only when Chinese expatriates have high levels of both CQ and perseverance of effort can they have their psychological needs satisfied, leading to desirable work performance. These findings emphasize the importance of enhancing CQ and cultivating grit among Chinese expatriates in the MENA, which further enable them to conduct overseas work more effectively.

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