

The Influence of Pressure Perception and Social Support on Medical Work Desire

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Abstract. Based on the phenomenon that medical risks result in lower desire for engaging in medical work. [Purpose] the study explores to what degree medical students hope to become a medical practitioner through investigating and analyzing their reaction to pressure perception and social support in the course of internship. [Method] On the basis of taking pressure perception as an independent variable, six dimensions are measured, including employment situation, interpersonal relationship, knowledge and skills, medical conditions, workload and medical risks. In addition, taking social support as a moderating variable, the study analyzes medical students' desires for engaging in medical work in terms of degree from three dimensions: degree of respect, degree of understanding and degree of satisfaction. [Conclusions] The results show that pressure perception significantly influences the desire for engaging in medical work and that the interaction of pressure perception and social support is marginally significant and has negative effect on work desire.

1. Introduction

In recent years, due to the irrational allocation of medical resources, ambiguous medical liability system and uncertain risks existing in the course of medical treatment, medical accidents and medical disputes occurred frequently, which resulted in the extremely strained relationship between doctors and patients. according to the data provided by Professor Li Ling, a famous healthcare reform expert from National Development Research Institute of Peking University. There exists the massive loss of medical students in China, and many talented people do not wish to become a doctor. The strained doctor-patient relationship and social influence brought greater pressure to doctors and medical students. The relevant survey showed that, the disputes between doctors and patients increased at the rate of 20% annually, which happened almost in every hospital with various degrees^{[1] [2]}. Hence, the relationship between doctors and patients raised public concern once again.

2. An overview of relevant researches

2.1 Pressure Perception and Influencing Factors

Holmes and Rahe called the things influencing human spirit in the change of life "life events". The pressure source is the typical life event, but not all the life events come from the pressure source. The relevant researches showed that negative life events are the reasons for influencing health^{[3] [4]}. According to the researches on the pressure of students in Tsinghua university conducted by Fan Fumian and Li Wei, 71.3% of them suffered from greater psychological stress, which resulted in adverse effects on their physiology and psychology. In the research of Liu Jie, 80.1% of the surveyed students said that they experienced the "very large" or "relatively large" pressure, reflecting that university students are bearing the relatively high pressure.

2.2 The Influence of Pressure Perception and Social Support on Work Desire

House and Turner thought that social support usually refers to the role of important people around the individual in agony such as family members, friends, colleagues, relatives and neighbors, that is, their presence plays a significant role for the individual in agony. This kind of support includes practical help, social-emotional support and providing information. Sarason and some scholars thought that social support is the individual's perception of external support he expects to gain or can gain. Li Qiang thought that social support refers that an individual can reduce the psychological stress response, relieve tension and improve social adaptability through social bonds. Social bonds refer to spiritual and material support and help from family members, friends, colleagues, groups, organizations and communities.

3. Research hypotheses and conceptual model

3.1 Pressure Perception and Work Desire

According to the relevant survey, 91.1% of the surveyed students have the perception of employment pressure. In this study, 52.5% of medical students think that "doctor-patient relationship" is one of factors influencing the choice of deciding whether to become a doctor. Medical students must encounter many new challenges when they enter the practice stage or the stage of practicing medical knowledge. As they have to face double difficulties: professional difficulties of applying medical knowledge in practice and social difficulties of facing severe medical reality, they waver in their ideas of engaging in medical work. A considerable number of students feel passive and puzzled for their own career future and the job roles they will assume, and even have the negative intention.

H1 Pressure perception has the negative correlation with the effect of work desire.

3.2 Social Support and Work Desire

Social support is considered as an important resource of the individual to cope with stress, which can, to some extent, ease the psychological pressure, have the buffer effect on the pressure and reduce negative emotional experiences caused by pressure. But at present, for the research on social support, the used measurement tools were not unified, resulting in difference in results.

H2 Social support has the positive correlation with the effect of work desire.

3.3 Social Support as a Moderator

The perception of social support reflects an individual's emotional experience or satisfaction of being respected, supported and understood in society, which is the expectation and evaluation of social support and the belief of obtaining possible social support. At present, there are two kinds of different hypothetical models used to illustrate the relationship between social support and pressure. Social support is considered to be an important environmental factor in the school adjustment problem of college students. Many studies showed that social support plays an active role in the school adjustment. Some researchers proved that, the degree of social support one student gains is higher, his school adjustment ability is better. In addition, other researches show that social support plays a protective role for the individual under the condition of stress. The pressure the individual feels is higher, the role of social support is greater.

H3a High social support plays a less obvious role in the adjustment to pressure perception and work desire.

H3b Low social support plays a negative role in the adjustment to pressure perception and work desire.

3.4 Conceptual Model

Based on the above analysis, the research model and the corresponding hypothesis in this study can

be described through Figure 1.

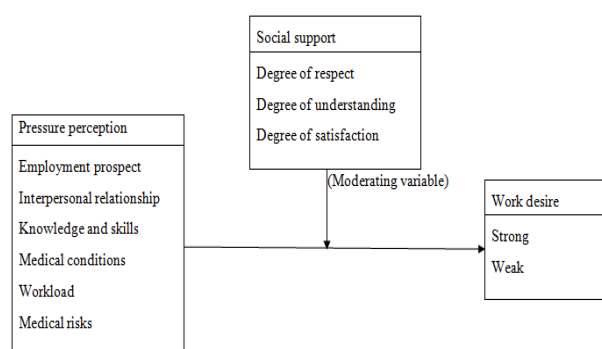


Figure 1. Moderating Effect Conceptual Model of Social Support between Pressure Perception and Work Desire

4. Research method

4.1 Study Samples

In this study, the samples were collected through questionnaires or through the network. 240 questionnaires had been distributed, the collection rate of valid questionnaires is 84.6 %. The respondents include the medical student interns who would graduate from various medical schools or colleges.

4.2 Measurement of Variables

To ensure the reliability and validity of survey questionnaires as a variable, the researchers in this study fully used the scales existing in the literatures worldwide for reference. The relevant items in the scales home and abroad are used for pressure scale. The main references included Pagana's CSQ (clinical stress questionnaire), Admi's NSSS (nursing student's stress scale) and Cohen and Zick's Student Stress and Coping Inventory. Some items which are not suitable for China's social culture were deleted. In addition, Garbee's Dental Environment Stress Questionnaire (DES) is also a reference, in which the parts in line with China's national conditions are selected for use. Pressure perception measure dimensions are: employment prospects, interpersonal relationships, knowledge and skills, environmental resources, workload and medical risks. The respondents were asked to score according to their recognition of the actual situation of the enterprise (Five points indicates the degree of being very consistent, one point means the degree of being very inconsistent). If the score is higher, it indicated that the pressure medical students perceive during the internship is greater. For social support, the subjectively supportive part in the "Social Support Rating Scale" of the manual for mental health evaluation was adopted. The higher the score is, the smaller social support is. The work desire was divided according to the job obtainment strength of medical students.

5. Empirical analysis

5.1 Reliability and Validity

In order to test the internal consistency of the scale, the construct validity of pressure perception was tested in this study through the confirmatory factor analysis with the help of AMOS7.0. The results showed that the construct validity of pressure perception was good and GFI, CFI, NFI, IFI, RFI were nearly 0.9 (The value of 0.9 or more is appropriate; for χ^2/df , the value of between 1 and 3 is appropriate). As the fit indexes before and after the model don't meet the ideal standard, the model was amended. As is shown in Table 1, the indexes after the revision conformed to the

standard. The combination reliability of pressure perception is 0.8093; the combination reliability of social support is 0.419. Various measure items of the scale in this study have better internal consistency, and the reliability was verified. Of the indicators of pressure perception, knowledge and skills contributed the most, the factor loading of which was 0.71; it was followed by workload, employment situation, medical conditions, interpersonal relationships and medical risks. Of three indicators of social support, the degree of understanding contributed the most, the factor loading of which was 0.61; it was followed by the degree of satisfaction and the degree of respect, the factor loading of which were respectively 0.39 and 0.31.

TABLE I. INDICATORS OF CONFIRMATORY FACTOR ANALYSIS MODEL FOR PRESSURE PERCEPTION

	χ^2	df	χ^2/df	GFI	CFI	IFI	RFI	NFI	AIC	BCC	ECVI
A	66.768	9	7.419	0.899	0.843	0.846	0.71	0.826	90.768	91.643	0.456
B	8.598	7	1.228	0.986	0.996	0.996	0.952	0.978	36.698	37.619	0.184

5.2 Model Fitting

From the common fitting indexes, the fitting indexes have not yet reached the ideal standard; so the model needs to be amended. After the amendment, the fitting indexes for the model were improved; moreover, CFI and IFI reflecting the fitness of model were greater than 0.90. After the successive amendment, AIC, BCC and ECVI values decreased successively, and the overall fitting of the model was good.

TABLE II. MODERATING EFFECT MODEL OF SOCIAL SUPPORT BETWEEN PRESSURE PERCEPTION AND WORK DESIRE

	χ^2	df	χ^2/df	GFI	CFI	IFI	RFI	NFI	AIC	BCCQ	ECVI
A	260.367	74	3.518	0.839	0.702	0.710	0.553	0.637	322.367	327.422	1.62
B	91.456	64	1.429	0.94	0.956	0.958	0.818	0.872	173.456	180.141	0.872

Note: Model A, the model before the amendment, which can be seen in Figure 2; Model B, the model after the amendment, which can be seen in Figure 3.

5.3 Moderating Effect Analysis of Social Support between Pressure Perception and Work Desire

TABLE III. MEANS OF WORK DESIRE, PRESSURE PERCEPTION AND SOCIAL SUPPORT AND THEIR STANDARD DEVIATIONS AND THE CORRELATION ANALYSIS

	Work desire	Pressure perception	Social support
Work desire	1		
Pressure perception	0.342**	1	
Social support	0.158*	0.467**	1
Mean	4.2750	101.6750	19.2100
Standard deviation	2.72147	16.28173	3.30005

Note: * $p < 0.05$, ** $p < 0.01$

On the basis of taking social support as the adjustment variable, pressure perception as the independent variable and work desire as the dependent variable, the structural equation model was adopted to verify the adjustment effect of social support. First, according to the moderating effect analysis of the latent variable provided by Hou Jietie and other scholars, the centralization or standardization of indicators of three variables was implemented. The results of two methods were consistent. In this study, the standardization method was used to standardize six indicators for pressure perception, three indicators for social support and two indicators for work desire. Then the product of pressure perception and social support was calculated, which was used as the interaction

term of independent variable and moderating variable. The calculation principle for product term were based on two principles proposed by Hou Taijie: ①For the number of indicators for product term, it is subject to the smallest number of indicators; that is, as the pressure perception has six indicators and social support has three indicators, the number of indicators for the product term is three; ②The principle of setting the indicators of product term is that the indicator with the most load is selected from the indicators of one variable with more indicators to be multiplied by the indicator of another variable with the most load; that is, the most is multiplied by the most, the least is multiplied by the least. According to the analysis process of moderating effect of latent variable, the independent variable, moderator, the interaction term between them and dependent variable are set, and the setting of the model can be seen in Figure 2.

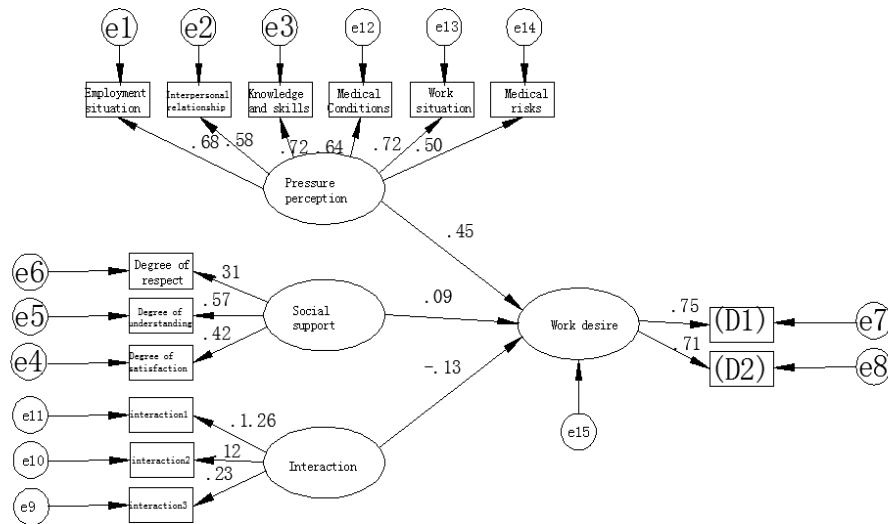


Figure 2. Moderating Effect Model of Social Support between Pressure Perception and Work Desire before the Amendment

According to the results before the amendment, pressure perception has a significant effect on the work desire, the standardized regression coefficient is 0.45, p is less than 0.001, For medical students, if their pressure perception is higher, they are more reluctant to engage in medical work. Social support has less obvious effect on the work desire, p is more than 0.1. The interaction of pressure perception and social support is marginally significant, having negative impact on work desire, the standardized regression coefficient is -0.128, p is 0.071. Pressure perception significantly affects the work desire (The standardized regression coefficient is 0.45, $p < 0.001$); the higher the pressure perception is, the lower the work desire is. But the relationship between pressure perception and work desire is influenced by the moderating effect of social support, and marginal significant is obvious (The standardized regression coefficient is -0.128, $p = 0.071$), that is, the result that the work desire decreases with the increase of pressure perception is influenced by some aspects of the individual: degree of being respected, degree of being understood and satisfaction degree of the individual. If the individual is highly respected and understood by society and has higher satisfaction, he/she don't have the idea of not engaging in the medical work in case of the higher pressure perception. However, on the contrary, if the individual has lower degree of respect, understanding and satisfaction, he/she does not want to be a doctor when the pressure perception is higher.

According to the results after the amendment, pressure perception has a significant effect on the work desire, the standardized regression coefficient is 0.43, p is less than 0.001, For medical students, if their pressure perception is higher, they are more reluctant to engage in medical work. Social support has less obvious effect on the work desire, p is more than 0.1. The interaction of pressure perception and social support is marginally significant, having negative impact on work desire, the standardized regression coefficient is -0.14, p is more than 0.1. Pressure perception

significantly affects the work desire (The standardized regression coefficient is 0.45, $p < 0.001$). The higher the pressure perception is, the lower the work desire is. Social support has less obvious effect on the work desire. The relationship between pressure perception and work desire is slightly influenced by the moderating effect of social support. After the amendment, the setting of model is shown in Figure 3.

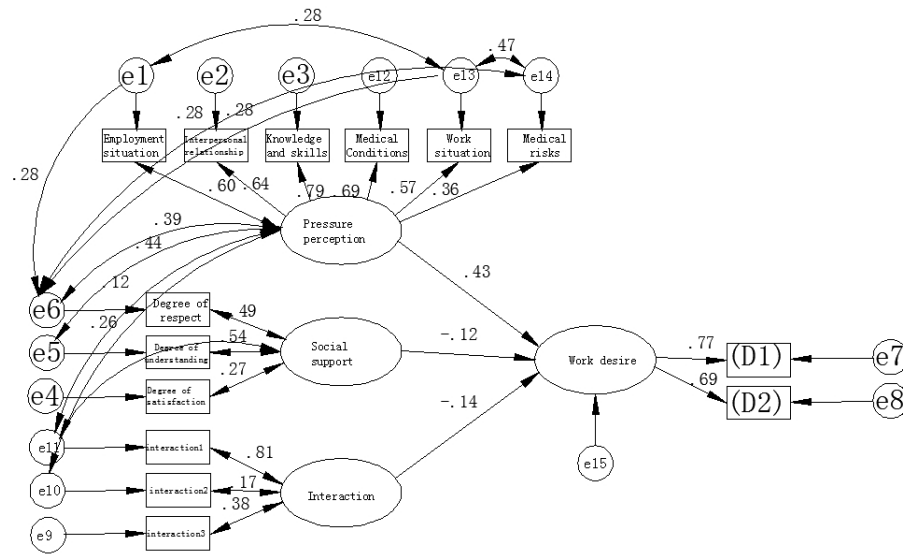


Figure 3. Moderating Effect Model of Social Support between Pressure Perception and Work Desire after the Amendment

6. Conclusions and outlook

Although the authors strived to follow the criteria of scientific research paradigm in the process of completing this research, this study still has some limitations because of limits in research capabilities, knowledge reserve and some external factors. Because the surveyed objects make their judgments mainly base on their subjective evaluations, the data collected in this survey may be affected by their subjective perceptions, which is likely to affect the accuracy and reliability of research variables. As the division dimension of social support is relatively broad, up to now, there is still no uniform standard for dimension division. In this study, the objective section in the manual for mental health evaluation scale is used for division. In the future research, some subjective factors can be taken into account to explore the influential mechanism of different behaviors. In the subsequent studies, the dynamic and longitudinal researches can be conducted from different medical levels to systematically find the rule of how pressure perception and social support influence the medical work desire, proving more targeted practical guide for the medical work. This work is also worthy of our in-depth study and verification.

Reference

- [1] Zuwen Li, Guodong Zhang. The Five Crucial Reasons of China Incession Doctors and patients Dispute. Green Chinese magazine, 2007.
- [2] Fuzhong Xu, Qinglong Xu. Thinking of construction of a harmonious relationship between doctors and patients. Chinese Journal of medical research, 2006. 12(6).
- [3] M .phillip, Stress and health, 1998.
- [4] Lazarus, R, S, DeLongis, A, Folkman, S, & Gruen, R. Stress and adaptational outcomes: The problem of confounded mearsures. American Psychologist, pp.770-779, 1985.