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· 论 著 ·

军人心理弹性与疲劳的关系：社会支持与自我效能感的多重中介作用

宋相瑞^{1,2}, 尹倩兰¹, 侯田雅¹, 陈璐², 支强², 邓光辉^{1*}

1. 海军军医大学(第二军医大学)心理系海军航空及特种心理学教研室, 上海 200433

2. 中国人民解放军 31619 部队政治处, 镇江 212421

[摘要] **目的** 研究军人疲劳与心理弹性、社会支持及自我效能感的关系。**方法** 采用多维疲劳量表、心理弹性量表、一般自我效能感量表和中文版社会支持问卷对 812 名军人进行测试。采用 Pearson 相关性分析探讨变量间的关系, 采用分层线性回归分析心理弹性、社会支持及自我效能感对疲劳的预测性, 并通过构建结构方程模型检验社会支持、自我效能感在心理弹性与疲劳之间的中介作用。**结果** 共回收有效问卷 794 份, 有效率为 97.78%。Pearson 相关性结果分析表明军人的疲劳与心理弹性、社会支持及自我效能感均呈负相关 ($r = -0.646$ 、 -0.460 、 -0.520 , 均 $P < 0.01$), 心理弹性与社会支持、自我效能感均呈正相关 ($r = 0.458$ 、 0.618 , 均 $P < 0.01$), 社会支持与自我效能感呈正相关 ($r = 0.423$, $P < 0.01$)。分层线性回归分析结果表明心理弹性可独立预测疲劳水平 ($P < 0.01$), 同时社会支持和自我效能感对疲劳的回归显著 (均 $P < 0.01$), 三者可解释疲劳 46.6% 的方差变异。结构方程模型结果表明社会支持、自我效能感在心理弹性与疲劳之间的中介作用显著 ($P < 0.001$, $P = 0.026$), 同时两者的链式中介在心理弹性与疲劳之间的也存在显著中介效应 ($P < 0.001$)。**结论** 加强军人心理弹性水平训练, 提高军人社会支持水平和军人自我效能感对增强军人疲劳应对能力、降低疲劳反应、提高作业效能具有重要意义。

[关键词] 疲劳; 心理弹性; 社会支持; 自我效能感; 军事人员

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Relationship between mental resilience and fatigue among military personnel: multiple mediation effects of social support and self-efficacy

SONG Xiangrui^{1,2}, YIN Qianlan¹, HOU Tianya¹, CHEN Lu², ZHI Qiang², DENG Guanghui^{1*}

1. Department of Naval Aviation & Operational Psychology, Faculty of Psychology, Naval Medical University (Second Military Medical University), Shanghai 200433, China

2. Political Office, No. 31619 Troop of PLA, Zhenjiang 212421, Jiangsu, China

[Abstract] **Objective** To explore the relationship among fatigue, mental resilience, social support and self-efficacy in military personnel. **Methods** A total of 812 military personnel were tested with multidimensional fatigue inventory scale, the Connor-Davidson resilience scale, general self-efficacy scale, and Chinese version social support revalued scale. Pearson correlation analysis was used to explore the relationship between variables, and hierarchical linear regression was used to analyze the predictive effects of mental resilience, social support, and self-efficacy on fatigue. Structural equation model was constructed to investigate the mediation roles of social support and self-efficacy in the relationship between mental resilience and fatigue. **Results** A total of 794 valid questionnaires were collected, with an effective rate of 97.78%. The results of Pearson correlation analysis suggested that fatigue was negatively associated with mental resilience, social support, and self-efficacy ($r = -0.646$, -0.460 , -0.520 , all $P < 0.01$), mental resilience was positively associated with social support and self-efficacy ($r = 0.458$, 0.618 , both $P < 0.01$), and social support was positively associated with self-efficacy ($r = 0.423$, $P < 0.01$). Hierarchical linear regression analysis revealed that mental resilience could independently predict fatigue ($P < 0.01$); social support and self-efficacy had a significant regression with fatigue (both $P < 0.01$); and the 3 variables could explain 46.6% variance of fatigue. The results of structural equation model showed that social support and self-efficacy mediated

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[作者简介] 宋相瑞, 硕士, 助理讲师. E-mail: jixianbianyuan@163.com

*通信作者(Corresponding author). Tel: 021-81871677, E-mail: bfbedu@126.com

the relationship between mental resilience and fatigue ($P<0.001$, $P=0.026$); furthermore, the chain mediation of social support and self-efficacy also played a mediation role in the relationship between mental resilience and fatigue ($P<0.001$).

Conclusion The programs to enhance mental resilience, social support and self-efficacy can provide significant benefit for improving the abilities of military personnel to deal with fatigue and for improving their operational efficiency.

[**Key words**] fatigue; mental resilience; social support; self-efficacy; military personnel

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一般地, 疲劳是指厌倦或是生理或心理资源的耗竭^[1]。目前, 军队训练实战化水平不断提高, 训练课目不断增加, 训练强度和难度也在不断加大, 军人疲劳问题也引起各方面越来越多的关注。由于职业的特殊性, 军人具有较高的疲劳水平^[2-4], 研究表明疲劳是军人抑郁情绪的重要影响因素^[5], 也是导致各种安全问题的危险因素^[6]。同时, 研究显示心理压力是疲劳的重要诱因^[7], 而心理弹性与疲劳呈负相关^[8-9]。除此之外, 还有研究表明疲劳与社会支持和自我效能感呈负相关^[10-12]。

心理弹性是指应对困难和挫折的能力, 它对于人们保持正常的心理功能、抵御外界不良刺激带来的心理应激具有重要意义^[13-15], 同时也是疲劳的保护性因子^[16-18], 心理弹性高的个体往往具有较低的疲劳水平, 研究表明心理弹性对疲劳具有显著的预测性^[19-20]。

社会支持是指个体对想得到或可以得到的外界支持的感知, 它也是人们身体和心理健康的保护性因素。研究表明低水平的社会支持不利于身体和心理健康^[21], 社会支持水平低的癌症患者具有更高的疲劳分数^[22], 情感支持高的乳腺癌患者具有更低的疲劳水平^[12], 在对老年肿瘤患者及多发性硬化症患者的研究^[23-24]中也得出相同的结论。

自我效能感是指一个人对自己在某一活动领域中操作能力的主观判断或评价^[25]。研究表明自我效能感与社会支持呈正相关^[10]、与疲劳水平呈负相关^[26], 提高中风患者自我效能感有助于降低他们的疲劳水平^[18]。

目前对于疲劳、心理弹性、社会支持和自我效能感的研究还仅仅是对个别变量的相关性研究, 缺乏对这4个变量的整体性研究, 同时心理弹性、社会支持及自我效能感对疲劳的预测性及社会支

持、自我效能感在心理弹性与疲劳之间的中介作用还未见报道。基于此, 本研究采用横断面研究设计, 运用相关分析、回归分析及结构方程模型等方法探讨疲劳、心理弹性、社会支持和自我效能感之间的关系。

1 对象和方法

1.1 研究对象 整群抽取某部官兵812人参与问卷调查, 现场由3名专业人员组织实施, 统一发放问卷、宣读指导语并现场巡回答疑, 待最后1名被试完成问卷填写后, 统一回收问卷。共回收有效问卷794份, 有效率为97.78%。

1.2 工具

1.2.1 多维疲劳量表 采用苗雨^[27]修订的中文版多维疲劳量表, 该量表共有20个条目, 包含体力疲劳、脑力疲劳、动力下降及活动减少4个分量表, 题目采用5点李克特评分法, 1~5点分别表示完全不符合、有点符合、介于中间、比较符合、完全符合。疲劳的表述采用正向计分, 不疲劳的表述采用反向计分, 分数越高表示疲劳程度越高。量表总的内部一致性信度Cronbach's α 系数为0.88, 体力疲劳等4个分量表的Cronbach's α 系数分别为0.87、0.78、0.48和0.69。

1.2.2 心理弹性量表 该量表是2003年由Connor和Davidson^[28]2人共同编制, 中文汉化版本包含坚韧、力量及乐观3个分量表。题目采用5点李克特评分法, 0~4点分别表示从不、很少、有时、经常、一直如此, 各分量表所属题目分值相加即为各分量表分数, 3个分量表分数相加即为心理弹性分数。研究表明心理弹性量表具有很好的信效度^[14,29]。

1.2.3 一般自我效能感量表 一般自我效能感量表由Schwarzer和Born^[30]编制, 中文版本由王才康

等^[31]于2001年翻译和修订。一般自我效能感量表共有10个题目,采用4点李克特评分法,1~4点分别表示完全不正确、有点正确、多数正确、完全正确,分数越高表明被试的自我效能感越高。研究表明一般自我效能感量表的信效度指标良好^[31-32]。

1.2.4 中文版社会支持问卷 该问卷的中文版本由肖水源编制,共有10个条目,包含客观支持、主观支持及支持利用度3个分量表,10个条目得分的总和即为社会支持分数,分数越高表明被试的社会支持程度越高^[33]。研究表明中文版社会支持问卷的信效度良好^[34]。

1.3 统计学处理 数据由2名心理学专业研究生分别录入,核对无误后导入SPSS 23.0软件进行分析。采用Pearson相关分析检验变量间的相关性,采用分层线性回归分析心理弹性、社会支持及自我效能感对疲劳的预测性。应用Mplus 8.3软件构建结构方程模型,采用百分位Bootstrap法和偏差校正的百分位Bootstrap法检验社会支持、自我效能感在心理弹性与疲劳之间的中介效应。检验水准(α)为0.05。

2 结果

2.1 各量表的评估结果 多维疲劳量表的体力疲劳、脑力疲劳、动力下降及活动减少4个分量表的得分分别为(16.10±6.57)、(6.85±3.18)、(5.59±2.11)和(6.55±2.19)分,疲劳总分为(35.09±12.00)分;心理弹性量表的坚韧、力量和乐观3个分量表的得分分别为(38.85±9.46)、(26.17±5.56)和(10.28±3.06)分,心理弹性总分为(75.31±16.87)分;一般自我效能感量表的得分为(2.86±0.61)分;中文版社会支持问卷的客观支持、主观支持和支持利用度3个分量表的得分分别为(24.32±3.43)、(9.98±2.23)和(8.87±2.23)分,社会支持总分为(43.16±6.18)分。

2.2 相关性分析 如表1所示,军人的心理弹性总分与社会支持及自我效能感总分均呈正相关(均 $P<0.01$),与疲劳总分呈负相关($P<0.01$);疲劳总分与社会支持及自我效能感总分均呈负相关(均 $P<0.01$),社会支持总分与自我效能感总分呈正相关($P<0.01$)。

表1 军人心理弹性、疲劳、社会支持及自我效能感之间的相关性分析

Tab 1 Correlation between mental resilience, fatigue, social support and self-efficacy in military personnel

Variable	Mental resilience	Fatigue	Social support	Self-efficacy	<i>r</i>
Mental resilience	1				
Fatigue	-0.646**	1			
Social support	0.458**	-0.460**	1		
Self-efficacy	0.618**	-0.520**	0.423**	1	

** $P<0.01$.

2.3 分层线性回归分析 如表2所示,模型1中以疲劳为因变量作分层线性回归分析,结果表明军人心理弹性可独立预测疲劳($\beta=-0.646$, $t=-23.805$, $P<0.01$, $R^2=0.417$)。模型2中加入了社会支持和自我效能感,结果表明军人社会支持和自我效能感可显著预测疲劳($\beta=-0.180$ 、 -0.156 , 均 $P<0.01$),模型2可解释疲劳46.6%的方差变异。

2.4 中介作用分析 根据相关分析和回归分析结果,采用Mplus 8.3软件建构结构方程模型(图1),采用Bootstrap法估计社会支持、自我效能感在心理弹性与疲劳之间的中介效应,结果显示, $\chi^2=172.938$, $df=39$, $\chi^2/df=4.434$,比较性配适指标为0.973,塔克-刘易斯指数为0.961,近似误差均方

根为0.066,标准化残差均方根为0.040,模型拟合度指标良好。

中介效应分析结果表明,心理弹性→自我效能感→疲劳的中介效应显著, $P=0.026$,95%CI均不包含0;心理弹性→社会支持→疲劳的中介效应显著, $P<0.001$,95%CI均不包含0,同时链式中介效应心理弹性→社会支持→自我效能感→疲劳的中介效应显著, $P<0.001$,95%CI均不包含0。心理弹性→疲劳的直接效应显著, $P<0.001$,95%CI均不包含0。中介效应比较结果表明,心理弹性→社会支持→疲劳的中介效应显著高于心理弹性→自我效能感→疲劳及心理弹性→社会支持→自我效能感→疲劳的中介效应, P 值分别为0.010和 <0.001 ,

95% CI均不包含0; 心理弹性→自我效能感→疲劳 能感→疲劳的中介效应, $P=0.032$, 95% CI均不包含0。见表3。

表2 军人心理弹性、社会支持及自我效能感对疲劳预测性的分层线性回归分析

Tab 2 Hierarchical linear regression analysis of mental resilience, social support and self-efficacy for fatigue prediction in military personnel

Model	Variable	β	t value	R^2	ΔR^2	F value
Model 1	Mental resilience	-0.646	-23.805**	0.417	0.417	566.685**
Model 2	Mental resilience	-0.467	-13.576**	0.466	0.049	229.443**
	Social support	-0.180	-6.044**			
	Self-efficacy	-0.156	-4.648**			

** $P<0.01$. β : Standardized regression coefficient; R^2 : Coefficient of determination.

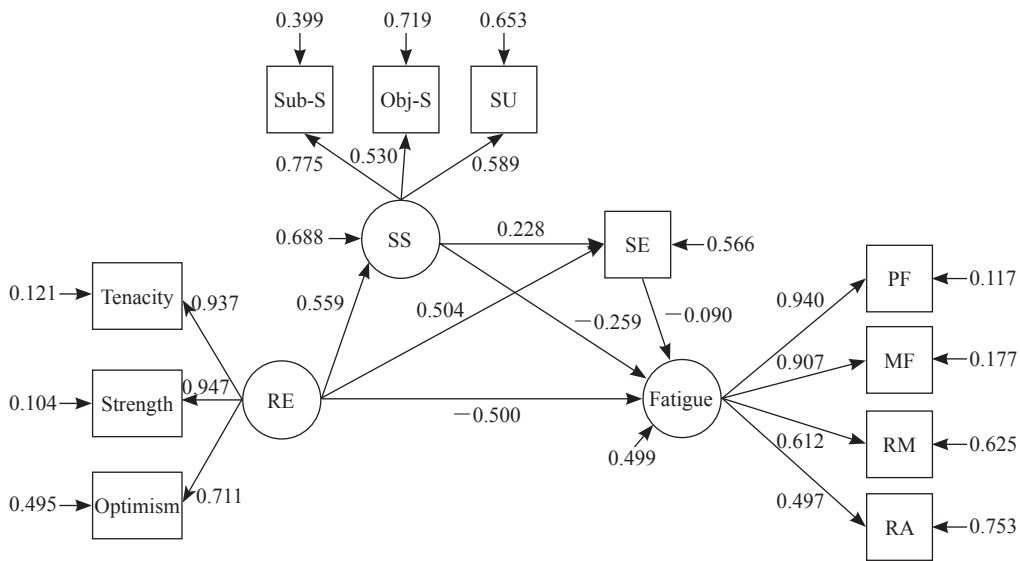


图1 社会支持、自我效能感在心理弹性和疲劳之间多重中介作用的结构方程图

Fig 1 Structural equation model analysis of mediation effects of social support and self-efficacy on relationship between mental resilience and fatigue

Standardized parameter estimates were shown beside the single directional arrows between variables, and residuals were shown behind the short arrows. RE: Mental resilience; SS: Social support; SE: Self-efficacy; Sub-S: Subjective support; Obj-S: Objective support; SU: Support utilization; PF: Physical fatigue; MF: Mental fatigue; RM: Reduced motivation; RA: Reduced activity.

表3 军人社会支持、自我效能感在心理弹性与疲劳之间的中介效应分析

Tab 3 Mediation effect analysis of social support and self-efficacy on mental resilience and fatigue in military personnel

Variable	Est	Product of coefficients			Bootstrapping ^a (95% CI)	
		SE	Est/SE	P value	Bias-corrected	Percentile
Indirect effect						
RE→SE→FA (1)	-0.032	0.014	-2.232	0.026	(-0.062, -0.006)	(-0.061, -0.005)
RE→SS→FA (2)	-0.101	0.020	-4.970	<0.001	(-0.147, -0.066)	(-0.145, -0.065)
RE→SS→SE→FA (3)	-0.001	0.000	-3.511	<0.001	(-0.002, -0.001)	(-0.002, -0.001)
Total indirect effect	-0.133	0.023	-5.906	<0.001	(-0.183, -0.094)	(-0.182, -0.094)
Direct effect						
RE→FA	-0.348	0.036	-9.801	<0.001	(-0.420, -0.278)	(-0.419, -0.277)
Constrast						
(1) vs (2)	0.069	0.027	2.572	0.010	(0.020, 0.126)	(0.019, 0.125)
(1) vs (3)	-0.031	0.014	-2.145	0.032	(-0.061, -0.005)	(-0.060, -0.004)
(2) vs (3)	-0.099	0.020	-4.969	<0.001	(-0.146, -0.065)	(-0.143, -0.064)

^a: Bootstrap=5 000. RE: Mental resilience; SE: Self-efficacy; FA: Fatigue; SS: Social support; SE: Standard error; Est: Point estimate; CI: Confidence interval.

3 讨论

疲劳是军人时刻都要面临的挑战,它对军人作业水平会产生一定的负面影响,研究表明在疲劳状态下人的身体能力和认知功能会受到一定程度的损害^[35]。本研究探讨了心理弹性、社会支持、自我效能感与疲劳的关系,并检验了社会支持、自我效能感在心理弹性与疲劳之间的中介作用,为今后减少军人疲劳反应、提高作战能力提供了理论基础和实践依据。

与既往研究^[8,16]相同,本研究结果显示心理弹性与疲劳呈负相关且可以独立预测疲劳水平。在分层回归分析模型及结构方程模型中,心理弹性对疲劳的预测性高于社会支持和自我效能感,同时直接效应也高于各中介效应,这凸显出心理弹性对军人疲劳水平的保护性作用,应当引起军队相关机构对军人心理弹性训练的高度重视。提高军人心理弹性是降低疲劳水平的有效途径。既往研究也表明心理弹性训练有助于提升军人自我意识及积极应对能力^[36],提高积极情绪、减少消极情绪的发生,并对其情绪调节方式产生积极影响^[37-38],改善心理健康水平^[39-41],这都与本研究结论一致。

一般地,社会支持被认为是心理健康的保护性因素^[42]。本研究结果表明社会支持也是疲劳的保护性因素,可以预测疲劳水平并且在心理弹性和疲劳之间具有中介作用。这提示提升社会支持水平有助于减少军人的疲劳,因此构建和谐友爱的官兵、兵兵关系,提高官兵社会支持水平,对于减少军人疲劳具有一定的作用。

本研究结果显示自我效能感与疲劳呈负相关,而且在心理弹性和疲劳之间具有中介作用。因此,提升自我效能感也是减少军人疲劳的有效途径。研究表明,自我效能感与学业成就关系密切^[43],同时与军人疲劳、心理应激及压力感知密切相关^[44],支持本研究结论。

综上所述,心理弹性、社会支持和自我效能感可以预测疲劳水平。加强军人心理弹性水平训练,提高军人社会支持水平和军人自我效能感,对增强军人疲劳应对能力、降低疲劳反应、提高作业效能具有重要意义。其中最核心的是心理弹性水平的提升,因此部队各级组织应当把心理弹性训练纳入训练内容,常态化开展,同时纯洁内部关系,营造良

好氛围,为官兵搭建更强劲的社会支持体系,并为官兵自我效能感的增强提供良好平台。

[参考文献]

- [1] HALLOWELL M. Worker fatigue: managing concerns in rapid renewal highway construction projects[J]. *Prof Saf*, 2010, 55(12): 18-26.
- [2] 王真真,罗显荣,杨璇,等.某区军人疲劳状况及影响因素[J].*解放军预防医学杂志*,2014,32(2):116-118. DOI: 10.13704/j.cnki.jyyx.2014.02.010.
- [3] 卢宁,黄建国,徐晖,等.高原边防军人和汽车军人慢性疲劳综合征的比较研究[J].*西北国防医学杂志*,2015,36(1):15-17. DOI: 10.16021/j.cnki.1007-8622.2015.01.006.
- [4] 罗显荣,张红梅,王真真,等.第二炮兵某部官兵心理、睡眠、疲劳状况调查[J].*解放军预防医学杂志*,2014,32(1):49-50. DOI: 10.13704/j.cnki.jyyx.2014.01.021.
- [5] 彭丽,阮宏鹏,谈昕,等.2016年某部高原汽车兵抑郁状况及其影响因素[J].*职业与健康*,2018,34(6):804-807. DOI: 10.13329/j.cnki.zyyjk.2018.0222.
- [6] MORRIS M B, WIEDBUSCH M D, GUNZELMANN G. Fatigue incident antecedents, consequences, and aviation operational risk management resources[J]. *Aerosp Med Hum Perform*, 2018, 89(8): 708-716. DOI: 10.3357/AMHP.5019.2018.
- [7] 朱海腾.野外驻训军人心理压力对疲劳感的影响及乐观倾向的调节作用[J].*华南国防医学杂志*,2020,34(6):424-429. DOI: 10.13730/j.issn.1009-2595.2020.06.013.
- [8] LIU L, WU D, WANG L, et al. Effort-reward imbalance, resilience and perceived organizational support: a moderated mediation model of fatigue in Chinese nurses[J]. *Risk Manag Healthc Policy*, 2020, 13: 893-901. DOI: 10.2147/RMHP.S259339.
- [9] ZOU G, LI Y, XU R, et al. Resilience and positive affect contribute to lower cancer-related fatigue among Chinese patients with gastric cancer[J]. *J Clin Nurs*, 2018, 27: e1412-e1418. DOI: 10.1111/jocn.14245.
- [10] WU C, GE Y, XU C Y, et al. A correlation study of emergency department nurses' fatigue, perceived stress, social support and self-efficacy in grade III A hospitals of Xi'an[J]. *Medicine (Baltimore)*, 2020, 99(32): e21052. DOI: 10.1097/MD.00000000000021052.
- [11] XU N, ZHAO S, XUE H, et al. Associations of perceived social support and positive psychological resources with fatigue symptom in patients with rheumatoid arthritis[J]. *PLoS One*, 2017, 12(3): e0173293. DOI: 10.1371/journal.pone.0173293.
- [12] FISHER H M, WINGER J G, MILLER S N, et al. Relationship between social support, physical

- symptoms, and depression in women with breast cancer and pain[J]. *Support Care Cancer*, 2021, 29(9): 5513-5521. DOI: 10.1007/s00520-021-06136-6.
- [13] LI M Y, YANG Y L, LIU L, et al. Effects of social support, hope and resilience on quality of life among Chinese bladder cancer patients: a cross-sectional study[J]. *Health Qual Life Outcomes*, 2016, 14: 73-81. DOI: 10.1186/s12955-016-0481-z.
- [14] FARBER E W, SCHWARTZ J A J, SCHAPER P E, et al. Resilience factors associated with adaptation to HIV disease[J]. *Psychosomatics*, 2000, 41(2): 140-146. DOI: 10.1176/appi.psy.41.2.140.
- [15] JALILIANHASANPOUR R, WILLIAMS B, GILMAN I, et al. Resilience linked to personality dimensions, alexithymia and affective symptoms in motor functional neurological disorders[J]. *J Psychosom Res*, 2018, 107: 55-61. DOI: 10.1016/j.jpsychores.2018.02.005.
- [16] LABRAGUE L J, BALLAD C A. Lockdown fatigue among college students during the COVID-19 pandemic: predictive role of personal resilience, coping behaviors, and health[J]. *Perspect Psychiatr Care*, 2021, 57(4): 1905-1912. DOI: 10.1111/ppc.12765.
- [17] NAVARRO-ABAL Y, LÓPEZ-LÓPEZ M J, CLIMENT-RODRÍGUEZ J A, et al. [Burden, empathy, and resilience in dependent people caregivers][J]. *Gac Sanit*, 2019, 33(3): 268-271. DOI: 10.1016/j.gaceta.2017.11.009.
- [18] TSAI S J, LI C C, TSAI S M, et al. Illness representation and self-efficacy: an exploration of fatigue factors in middle-aged stroke survivors[J]. *Clin Nurs Res*, 2021, 30(7): 1030-1037. DOI: 10.1177/1054773821997134.
- [19] 侯田雅, 经旻, 蔡文鹏, 等. 军人心理控制源和疲劳的关系: 心理弹性的中介作用[J]. *第二军医大学学报*, 2021, 42(11): 1308-1313. DOI: 10.16781/j.0258-879x.2021.11.1308.
- HOU T Y, JING M, CAI W P, et al. Relationship between locus of control and fatigue among military personnel: mediating role of mental resilience[J]. *Acad J Sec Mil Med Univ*, 2021, 42(11): 1308-1313. DOI: 10.16781/j.0258-879x.2021.11.1308.
- [20] YE B, ZHOU X, IM H, et al. Epidemic rumination and resilience on college students' depressive symptoms during the COVID-19 pandemic: the mediating role of fatigue[J]. *Front Public Health*, 2020, 8: 560983. DOI: 10.3389/fpubh.2020.560983.
- [21] COHEN S, WILLS T A. Stress, social support, and the buffering hypothesis[J]. *Psychol Bull*, 1985, 98(2): 310-357. DOI: 10.1037/0033-2909.98.2.310.
- [22] AKBAS M, SURUCU S G, AKCA E, et al. Determination of the relationship between the fatigue and social support levels of cancer patients: a cross-sectional study[J]. *Korean J Intern Med*, 2021, 36(Suppl 1): S207-S216. DOI: 10.3904/kjim.2019.010.
- [23] KARAKOÇ T, YURTSEVER S. Relationship between social support and fatigue in geriatric patients receiving outpatient chemotherapy[J]. *Eur J Oncol Nurs*, 2010, 14(1): 61-67. DOI: 10.1016/j.ejon.2009.07.001.
- [24] KEVER A, BUYUKTURKOGLU K, RILEY C S, et al. Social support is linked to mental health, quality of life, and motor function in multiple sclerosis[J]. *J Neuro*, 2021, 268(5): 1827-1836. DOI: 10.1007/s00415-020-10330-7.
- [25] BANDURA A. Self-efficacy: toward a unifying theory of behavioral change[J]. *Psychol Rev*, 1977, 84(2): 191-215. DOI: 10.1037//0033-295x.84.2.191.
- [26] DYMECKA J, GERYMSKI R, TATARUCH R, et al. Fatigue, physical disability and self-efficacy as predictors of the acceptance of illness and health-related quality of life in patients with multiple sclerosis[J]. *Int J Environ Res Public Health*, 2021, 18(24): 13237. DOI: 10.3390/ijerph182413237.
- [27] 苗雨. 多维疲劳量表中文版的修订及在军队基层医护人员中的应用研究[D]. 上海: 第二军医大学, 2008.
- [28] CONNOR K M, DAVIDSON J R T. Development of a new resilience scale: the Connor-Davidson resilience scale (CD-RISC)[J]. *Depress Anxiety*, 2003, 18(2): 76-82. DOI: 10.1002/da.10113.
- [29] 张晓敏, 崔轶, 张水森, 等. 心理弹性、认知情绪调节策略与海军官兵疲劳反应的关系[J]. *第二军医大学学报*, 2017, 38(12): 1572-1576. DOI: 10.16781/j.0258-879x.2017.12.1572.
- ZHANG X M, CUI Y, ZHANG S M, et al. Relationship between resilience, cognitive emotion regulation strategies and fatigue reaction of navy soldiers[J]. *Acad J Sec Mil Med Univ*, 2017, 38(12): 1572-1576. DOI: 10.16781/j.0258-879x.2017.12.1572.
- [30] SCHWARZER R, BORN A. Optimistic self-beliefs: assessment of general perceived self-efficacy in thirteen cultures[J]. *Word Psychology*, 1997, 3(1/2): 177-190.
- [31] 王才康, 胡中锋, 刘勇. 一般自我效能感量表的信度和效度研究[J]. *应用心理学*, 2001, 7(1): 37-40.
- [32] ZHANG J, SCHWARZER R. Measuring optimistic self-beliefs: a Chinese adaptation of the General Self-Efficacy Scale[J]. *Psychologia*, 1995, 38(3): 174-181.
- [33] 汪向东, 王希林, 马弘. 心理卫生评定量表手册(增订版)[M]. 北京: 中国心理卫生杂志, 1999: 127-131.
- [34] LIU Y Y, WANG Z, XU J T, et al. Associations between recent gay-related stressful events, emotional distress, social support and unprotected anal intercourse behavior among Chinese men who have sex with men[J]. *Aust N Z J Psychiatry*, 2016, 50(7): 659-666. DOI: 10.1177/0004867415614978.

- [35] LEE J H, HOWELL D R, MEEHAN W P, et al. Effects of exercise on Sport Concussion Assessment Tool-Third Edition Performance in professional athletes[J]. *Orthop J Sports Med*, 2017, 5(9): 232596711772726. DOI: 10.1177/2325967117727261.
- [36] 左昕, 彭李, 汪金生, 等. 心理弹性训练对水面舰艇军人自我意识和应对方式的影响[J]. *第三军医大学学报*, 2013, 35(15): 1616-1619. DOI: 10.16016/j.1000-5404.2013.15.035.
- [37] 彭李, 李敏, 姜晓梅, 等. 心理弹性训练对不同心理弹性水平军校医学生的正负性情绪及情绪调节方式的影响[J]. *第三军医大学学报*, 2014, 36(5): 470-472. DOI: 10.16016/j.1000-5404.2014.05.006.
- [38] 呼伟霞, 刘昶. 心理弹性训练对腹腔镜胃癌根治术后患者生活质量和负性情绪的影响[J]. *中国健康心理学杂志*, 2018, 26(1): 38-41. DOI: 10.13342/j.cnki.cjhp.2018.01.011.
- [39] 孙红霞, 徐洁滢, 张盾. 心理弹性训练对胃癌根治术患者预后和生活质量的影响分析[J]. *癌症进展*, 2018, 16(3): 390-393. DOI: 10.11877/j.issn.1672-1535.2018.16.03.36.
- [40] 周毅娟, 王建丽, 焦妙蕊, 等. 乳腺癌患者术后创伤后成长状况及心理弹性训练效果[J]. *中国健康心理学杂志*, 2020, 28(5): 692-695. DOI: 10.13342/j.cnki.cjhp.2020.05.014.
- [41] 赵晓芬, 陈茂山, 杨宏伟, 等. 心理弹性训练护理对乳腺癌简化根治术后的患者精神状态的影响[J]. *国际精神病学杂志*, 2016, 43(2): 350-353. DOI: 10.13479/j.cnki.jip.2016.02.048.
- [42] TANG X, LU Z, HU D, et al. Influencing factors for prenatal stress, anxiety and depression in early pregnancy among women in Chongqing, China[J]. *J Affect Disord*, 2019, 253: 292-302. DOI: 10.1016/j.jad.2019.05.003.
- [43] 于倩. 青少年主观幸福感对学业成就的影响: 自我效能感、自尊和自我同一性的中介作用[D]. 喀什: 喀什大学, 2020.
- [44] 田益沁, 陈秀秀, 蔡云, 等. 二炮某部军人高原驻训期间作业疲劳状态与心理应激、压力感知和自我效能感的关系[J]. *第三军医大学学报*, 2015, 37(21): 2156-2159. DOI: 10.16016/j.1000-5404.201503128.

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