论著·循证护理前沿

心脏瓣膜置换术后患者心脏康复心理需求呈“高焦虑-高自主性”特征:一项横断面研究

向小润[1],张 沙[2],邓 瑶[3],王 亚[4],叶茂亭[1],孙 澈[5] 陆军军医大学(第三军医大学)第一附属医院:[1]心脏外科,[2]胸外科,[3]中医与风湿免疫科,[5]临床护理学教研室,重庆;[4]陆军军医大学(第三军医大学)护理系,重庆

[摘要] **目的** 随着人口老龄化进程加快,心脏瓣膜病患病率持续上升,心脏瓣膜置换术(cardiac valve replacement,CVR)是其主要治疗方式之一。然而,患者术后症状重、功能恢复慢,需长期心脏康复。我国心血管疾病患者心脏康复(cardiac rehabilitation,CR)参与率低于30%,本研究旨在明确CVR术后患者对CR的心理需求特征并分析相关影响因素,从而为制定个体化、精准康复指导方案提供理论依据。**方法** 采用横断面研究设计方案,采用便利抽样法于2024年9月至2025年10月选取陆军军医大学第一附属医院心脏外科接受CVR的患者305例,使用一般资料调查表收集患者病史资料,心脏康复量表(cardiac rehabilitation inventory,CRI)调查患者个性化CR心理需求,患者迁移应激量表(Relocation Stress Syndrome Scale-Short Form,RSSs-SF)调查患者迁移应激水平,慢病患者自我效能量表(Self-Efficacy to Manage Chronic Disease Scale,SEMCD)调查患者疾病自我管理能力。以单因素分析和相关性分析中差异具有统计学意义的指标作为自变量,以CR各维度得分作为因变量,使用多元线性回归分析CR各维度得分的影响因素。**结果** 305例CVR术后患者CR心理需求的自主性维度得分为20(15,22)分,过程焦虑维度得分为27(26,28)分,结果焦虑维度得分为16(16,17)分;73.8%的患者康复自主性较高,87.9%的患者存在较高过程焦虑,100%的患者存在较高结果焦虑。单因素分析结果显示,CVR术后患者的CR心理需求自主性得分,在不同症状管理自我效能、护理认知患者中存在统计学差异;CR心理需求过程焦虑得分,在不同主要照顾者年龄、婚姻状况及情感状态患者中存在统计学差异;CR心理需求结果焦虑得分,在不同主要照顾者年龄、疼痛程度患者中存在统计学差异($P<0.05$)。多因素线性回归分析结果显示:瓣膜反流程度($\beta=-0.118$,$P=0.048$)、病人对护理的认知($\beta=-0.244$,$P<0.001$)是自主性的独立影响因素;情感因素($\beta=0.176$,$P=0.003$)、主要照顾者年龄($\beta=-0.122$,$P=0.046$)是过程焦虑的独立影响因素;主要照顾者年龄($\beta=-0.136$,$P=0.028$)是结果焦虑的独立影响因素。**结论** CVR术后患者CR心理需求呈“高焦虑-高自主性”特征。其中,自主性受瓣膜反流程度和患者对护理的认知影响,过程焦虑受情感因素和主要照顾者年龄影响,结果焦虑受主要照顾者年龄影响。

[关键词] 心脏瓣膜置换术;心脏康复;焦虑;自我效能;健康知识、态度、行为

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“High anxiety-high autonomy” profile of psychological needs for cardiac rehabilitation in patients after cardiac valve replacement: a cross-sectional study

Xiang Xiaorun[1], Zhang Sha[2], Deng Yao[3], Wang Ya[4], Ye Maoting[1], Sun Wei[5] [1]Department of Cardiac Surgery, [2]Department of Thoracic Surgery, [3]Department of Traditional Chinese Medicine and Rheumatology and Immunology, [5]Department of Clinical Nursing, First Affiliated Hospital, Army Medical University (Third Military Medical University), Chongqing; [4]School of Nursing, Army Medical University (Third Military Medical University), Chongqing, China

[**Abstract**] **Objective** With the acceleration of population aging, the prevalence of heart valve

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[通信作者] 孙 澈,E-mail:sunfamily@tmmu.edu.cn

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disease continues to rise, and cardiac valve replacement (CVR) is one of the main treatment modalities. However, these patients experience severe postoperative symptoms and slow functional recovery, requiring long-term cardiac rehabilitation (CR). The participation rate of CR among patients with cardiovascular diseases in China is lower than 30%. This study aims to clarify the characteristics of psychological needs for CR in patients after CVR and analyze the related influencing factors, so as to provide a theoretical basis for developing guidance programs of individualized and precision rehabilitation. **Methods** A cross-sectional study was conducted on 305 patients who underwent CVR and enrolled through convenience sampling in Department of Cardiac Surgery of First Affiliated Hospital of Army Medical University from September 2024 to October 2025. A general information questionnaire was used to collect medical history, and Cardiac Rehabilitation Inventory (CRI), Relocation Stress Syndrome Scale-Short Form (RSSs-SF) and Self-Efficacy to Manage Chronic Disease Scale (SEMCD) were applied to investigate the individualized CR psychological needs, relocation stress levels, and disease self-management ability of the patients. Indicators with statistically significant differences in univariate analysis and correlation analysis were taken as independent variables, and the scores of each dimension of CR were taken as dependent variables. Multiple linear regression analysis was utilized to analyze the influencing factors of the scores of each dimension of CR. **Results** Among the 305 patients after CVR, the scores of cardiac rehabilitation needs were 20 (15, 22) for autonomy dimension, 27 (26, 28) for process anxiety dimension, and 16 (16,17) for outcome anxiety dimension. There were 73.8% patients with high rehabilitation autonomy, 87.9% with higher process anxiety, and 100% with higher outcome anxiety. Univariate analysis demonstrated statistically significant differences in autonomy score of CR psychological needs among patients with varying symptom management self-efficacy and nursing cognition levels. Process anxiety differed significantly among patients with different primary caregiver age, marital status, and emotional status, whereas outcome anxiety varied significantly among those with different caregiver age and pain severity ($P<0.05$). Multiple linear regression analysis revealed that severity of valve regurgitation ($\beta=-0.118$, $P=0.048$) and cognition of nursing care ($\beta=-0.244$, $P<0.001$) were independent influencing factors of autonomy; emotional status ($\beta=0.176$, $P=0.003$) and primary caregiver age ($\beta=-0.122$, $P=0.046$) were independent influencing factors of process anxiety; and age of primary caregiver ($\beta=-0.136$, $P=0.028$) was an independent influencing factor of outcome anxiety. **Conclusion** The psychological needs for CR in patients after CVR are characterized by "high anxiety-high autonomy". Specifically, autonomy is influenced by the degree of valve regurgitation and patients' cognition of nursing care, process anxiety is influenced by emotional factors and age of primary caregiver, and outcome anxiety is influenced by age of primary caregiver.

[**Key words**] cardiac valve replacement; cardiac rehabilitation; anxiety; self-efficacy; health knowledge, attitudes, practices

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心脏瓣膜病是导致机体功能丧失、生活质量下降和寿命缩短的主要原因[1],我国心脏瓣膜病患者超2500万[2]。外科心脏瓣膜置换术(cardiac valve replacement,CVR)是治疗心脏瓣膜病的主要措施之一[3],但其创伤大、侵入性操作多(如胸骨劈开、机械通气等),易导致术后肺功能受损[4],胸痛与活动受限[5],甚至引发肌肉萎缩、神经心理障碍[6],从而延长功能恢复进程、增加康复照护难度。心脏康复(cardiac rehabilitation,CR)是一种采用患者健康教育、认知行为改变和运动训练等手段来改善心血管疾病患者预后的综合干预措施,包括体育锻炼、饮食指导、体质量管理等措施,可有效降低患者病死率和再入院率[7]。CR作为心脏术后的核心康复措施,还能改善患者身心功能与生活质量[8-11]。然而,我国心血管疾病患者的CR参与率低于30%,患者依从性不佳,提示现有康复服务在内容设计与实施路径上可能尚未充分匹配患者真实需求[12-13]。《健康中国行动—心脑血管疾病防治行动实施方案(2023—2030年)》[14]指出,要"规范化治疗以及康复服务的一体化全流程管理",对心脏术后康复的评估与精准干预提出了更高要求。鉴于国内针对CVR术后患者CR心理需求特征及其影响因素的系统研究仍相对不足,本研究拟对CVR术后患者

的CR心理需求特征进行调查,并从临床、心理与社会支持等多维度探讨其影响因素,为制定个体化的CR方案、提升患者依从性与康复效果提供参考。

1 材料与方法

1.1 研究对象

本研究采用横断面研究设计方案,运用便利抽样法,于2024年9月至2025年10月筛选陆军军医大学第一附属医院心脏外科接受CVR手术的住院患者作为研究对象。本研究通过陆军军医大学第一附属医院伦理委员会审批[(A)KY2024138]。

纳入标准:①临床确诊为心脏瓣膜病,于体外循环辅助下完成CVR外科手术;②年龄≥18岁;③意识清楚,认知及沟通能力正常,可独立配合完成本次调查研究。排除标准:①合并严重肝、肾、脑等重要脏器功能损伤及严重术后并发症者;②合并主动脉夹层或行胸、腹主动脉人工血管置换手术者;③临床病历资料残缺、数据不全,无法完成统计分析者;④有既往心脏手术史者。

1.2 样本量计算

基于最大条目数原则:主要研究工具心脏康复量表含18个条目,按10倍样本量估算(考虑20%缺失),本研究至少需纳入216例患者。

1.3 研究工具

1.3.1 一般资料调查表调查人口学特征及围术期临床资料 在查阅相关文献并征询心外科护理领域及临床专家意见的基础上,本研究自行编制一般资料调查表,内容涵盖两部分:①人口学特征,包括年龄、性别、文化程度、体质指数(body mass index,BMI)等;②疾病与治疗相关信息,包括主要诊断、手术方式及围术期相关临床资料等。

1.3.2 心脏康复量表(cardiac rehabilitation inventory,CRI)调查CR特征 CRI由英国埃塞克斯大学Mickle-wright等[12]编制,王俊红等[15]于2019汉化,用于评估心血管疾病患者个体化CR心理需求特征。该量表包含3个维度,过程焦虑(对康复训练过程中可能出现不良后果的担忧)、结果焦虑(对康复能否改善预后效果的担忧)和自主性(参与CR的主观积极性),共18个条目。采用Likert 5级评分法(0~4分),0分表示“非常不同意”,4分表示“非常同意”。该量表各维度Cronbach's α系数分别为0.862、0.842、0.765,总量表Cronbach's α系数为0.816。该量表不以总得分作为评判标准,各维度得分判定标准:自主性≤15分提示自主性较差;过程焦虑≥19分提示存在焦虑;结果焦虑≥10分提示存在焦虑。杨梅[16]在心力衰竭患者中应用并验证其具有较好的信度。

1.3.3 患者迁移应激量表(relocation stress syndrome scale-short form,RSSs-SF)调查迁移应激水平 RSSs-SF由Won等[17]编制,杨玲玲等[18]于2024年汉化,用于评估ICU转出患者的迁移应激水平,该量表含物理因素、患者对护理的认知、情感因素3个维度,共10个条目,该量表的Cronbach's α系数为0.867,各维度的Cronbach's α系数为0.833~0.876,均>0.800。采用Likert 5级(0~4分)评分法,0分为“强烈不同意”,4分为“强烈同意”。总分0~40分,得分越高,迁移应激水平越高。

1.3.4 慢病患者自我效能量表(self-efficacy to manage chronic disease scale,SEMCD)调查自我管理效能 SEMCD由Ritter[19]编制,张美霞[20]于2024年汉化,该量表分为症状管理自我效能、疾病共性管理自我效能2个维度,共6个条目,量表的Cronbach's α系数为0.934,重测信度为0.924。采用Likert 10级(0~10分)评分法,1分表示“完全没信心”,即完全无法做到;5分表示“信心一般”,中等肯定自己能做到;10分表示“非常有信心”,肯定能做到。总分6~60分,得分越高,表明慢性病患者自我管理效能越强。

1.4 资料收集及质量控制方法

在患者转出心外监护室的第3天,由2名经过问卷调查培训的硕士研究生现场调查并收集资料,在调查开始前向患者解释研究目的及意义,并征得其知情同意。发放纸质问卷,部分阅读困难患者由研究者向其朗读问卷内容,患者自行回答,研究者记录答案,并向患者核实最终填表结果无误。现场回收并核查所填资料,如有漏填及时补齐,24 h内转录纸质问卷结果到EpiData数据整理软件。人口学资料和疾病相关资料由2名研究生从病历资料中提取,一名负责记录,一名负责核查。

1.5 统计学分析

使用EpiData 3.1软件录入数据,数据分析选择SPSS27.0软件。计数资料频数(%)表示;计量资料中,用K-S检验数据是否符合正态分布。符合正态分布的以 $\bar{x}\pm s$ 表示,不符合正态分布的选择 $M(P_{25},P_{75})$ 表示;将患者一般资料分类,统计CR各维度总得分,对数据行KruskalWallis H 检验、Mann-Whitney U 检验。自主性得分和结果焦虑得分符合正态分布取原值,过程焦虑得分不符合正态分布,将原值取三次方做正态变换后纳入分析。以单因素分析和相关性分析中差异具有统计学意义的指标作为自变量,以CR各维度得分作为因变量,使用多元线性回归分析CR各维度

得分的影响因素。以$P<0.05$表示差异有统计学意义。

2 结果

2.1 CVR术后患者CR心理需求特征各维度得分

共发放问卷310份,有效问卷305份,有效回收率98%。305例研究对象年龄24~81岁(55.37±10.15),男性142人(46.6%),女性163人(53.4%),305例患者均为心脏瓣膜病患者。CVR术后患者CR心理需求自主性维度得分20(15,22)分,过程焦虑维度得分27(26,28)分,结果焦虑维度得分16(16,17)分。详见表1。

表1 心脏康复心理需求特征各维度得分[例(%),$M(P_{25},P_{75})$]

Table 1 Each dimension score of cardiac rehabilitation psychological needs [n(%),$M(P_{25},P_{75})$]

Variable	Score range	Score	Level	
			Low	High
Autonomy	10~27	20(15,22)	80(26.23)	225(73.77)
Process anxiety	22~31	27(26,28)	37(12.13)	268(87.87)
Outcome anxiety	12~20	16(16,17)	0	305(100.00)

2.2 CVR术后患者CR心理需求特征单因素分析

单因素分析结果提示,不同症状管理自我效能、病人对护理认知的CVR术后患者CR心理需求自主性得分比较,差异有统计学意义($P<0.05$);不同主要照顾者年龄、婚姻状况、情感因素的CVR术后患者CR心理需求过程焦虑总得分比较,差异有统计学意义($P<0.05$);不同主要照顾者年龄、疼痛得分的CVR术后患者CR心理需求结果焦虑总得分比较,差异有统计学意义($P<0.05$)。见表2。

2.3 CVR术后患者CR心理需求特征与其他变量的相关性分析

Spearman相关性分析结果显示,病人对护理的认知、瓣膜反流程度与CVR术后患者CR心理需求的自主性相关($P<0.05$);主要照顾者年龄、情感因素与CVR术后患者CR心理需求的过程焦虑相关($P<0.05$)。详见表3。

2.2 CR心理需求特征各维度得分的多因素线性回归分析

以单因素分析及相关性分析中有统计学意义的变量作为自变量,CR心理需求的自主性、过程焦虑、结果焦虑得分为因变量纳入多元线性回归分析,分类自变量赋值见表4。多因素线性回归分析结果表明,瓣膜反流程度、病人对护理的认知是CR心理需求的自主性独立影响因素($P<0.05$);情感因素、主要照顾者年龄是CR心理需求过程焦虑的独立影响因素($P<0.05$);主要照顾者年龄是CR心理需求结果焦虑的独立影响因素($P<0.05$),见表5。

表2 心脏康复心理需求特征的单因素分析[例(%),$M(P_{25},P_{75})$]

Table 2 Univariate analysis of characteristics of cardiac rehabilitation psychological needs [n(%),$M(P_{25},P_{75})$]

Variable	n(%)	Total autonomy score	Total process anxiety score	Total outcome anxiety score	P_1	P_2	P_3
Primary caregiver age/years					0.594	0.013	0.009
<35	5(1.6)	22(19.5,23)	27(26,28)	19(16,19)			
35 to 44	51(16.7)	22(21,23)	27(25,28)	15(14.5,17)			
45 to 60	153(50.2)	21(21,22)	27(26,28)	17(16,17)			
>60	96(31.5)	22(21,22)	27(26,28)	16(16,17)			
Pain score					0.181	0.716	0.02
1 to 3	46(15.1)	22(21,23)	27(27,28)	16(15,17)			
4 to 6	233(76.4)	22(21,22)	27(26,28)	16(16,17)			
7 to 10	26(8.5)	21(21,22)	27(26,28)	16(16,17)			
Marital status					0.953	0.018	0.400
Unmarried	15(4.9)	21(21,22)	27(27,28)	17(16,17)			
Married	290(95.1)	22(21,22)	27(26,28)	16(16,17)			
Symptom management self-efficacy	305(100.0)	22(21,22)	27(26,28)	16(16,17)	0.020	0.158	0.269
Patients' cognition of nursing care	305(100.0)	22(21,22)	27(26,28)	16(16,17)	<0.001	0.833	0.188
Emotional factors	305(100.0)	22(21,22)	27(26,28)	16(16,17)	0.561	0.027	0.130

P_1: P-value for CR autonomy; P_2: P-value for process anxiety; P_3: P-value for outcome anxiety

表3 心脏康复心理需求特征与其他变量的相关性分析

Table 3 Correlation analysis of characteristics of cardiac rehabilitation psychological needs with other variables

Variable	Autonomy		Process anxiety		Outcome anxiety	
	r_1	P_1	r_2	P_2	r_3	P_3
Symptom management self-efficacy	0.1	0.081	−0.032	0.579	−0.035	0.537
Disease common management self-efficacy	0.046	0.427	−0.043	0.454	−0.009	0.875
Physical factors	−0.076	0.184	0.032	0.574	0.03	0.600
Patients' cognition of nursing care	−0.261	<0.001	0.023	0.693	0.085	0.141
Emotional factors	−0.070	0.222	0.144	0.012	0.04	0.484
ICU length of stay	−0.045	0.435	−0.035	0.543	−0.003	0.954
Age	−0.021	0.717	−0.108	0.060	0.004	0.943
Operation duration	0.030	0.605	0.072	0.211	0.018	0.759
Ejection fraction	−0.013	0.825	0.054	0.344	0.019	0.744
Invasive ventilation duration	0.011	0.854	−0.025	0.670	−0.073	0.691
BMI	0.021	0.718	0.02	0.730	0.064	0.268
Education level	−0.026	0.648	0.006	0.918	0.015	0.791
Primary caregiver age	−0.001	0.905	0.187	0.001	0.080	0.162
Monthly income	0.054	0.351	0.028	0.631	0.036	0.526
Pain score	−0.097	0.090	−0.052	0.369	0.081	0.157
Disease duration	0.027	0.645	−0.082	0.150	−0.057	0.325
Valvular regurgitation severity	−0.145	0.011	0.009	0.878	−0.053	0.355
Number of replaced valves	0.048	0.400	−0.053	0.359	0.034	0.555
Valve type	−0.076	0.100	−0.073	0.205	0.004	0.939
Sex	0.021	0.713	0.001	0.990	0.024	0.671
Marital status	−0.001	0.900	−0.049	0.392	0.026	0.549
Medical insurance type	0.022	0.704	−0.017	0.761	0.016	0.780
Comorbidity	−0.072	0.200	0.03	0.597	−0.077	0.177

表4 自变量赋值

Table 4 Assignment of independent variables

Independent variable	Assignment
Primary caregiver age	1="<35";2="35—44";3="45—60";4=">60"
Pain score	1="1—3";2="4—6";3="7—10"
Valvular regurgitation severity	1=mild; 2=moderate; 3=severe
Marital status	1=unmarried; 2=married

表5 心脏康复心理需求特征的多因素线性回归分析

Table 5 Multivariate linear regression analysis of cardiac rehabilitation psychological needs

Dependent variable	Independent variable	Standardized β	*SE*	*t*	*P*
Autonomy	Symptom management self-efficacy	0.118	0.139	1.370	0.172
	Patients' cognition of nursing care	−0.244	0.071	−4.092	<0.001
	Valvular regurgitation severity	−0.118	0.097	−1.989	0.048
Process anxiety	Emotional factors	0.176	310.391	2.963	0.003
	Primary caregiver age	−0.122	220.254	−2.001	0.046
	Marital status	−0.031	112.381	−0.531	0.596
Outcome anxiety	Primary caregiver age	−0.136	0.099	−2.202	0.028
	Pain score	0.116	0.148	1.894	0.059

3 讨论

3.1 CVR术后患者CR心理需求自主性较好、过程焦虑和结果焦虑较高

本研究结果显示,26.23%患者自主性偏低,87.87%患者过程焦虑较高,100.00%患者结果焦虑较高,总体呈现“高焦虑-高自主性”的CR心理需求特征,这与既往研究基本一致[21-22]。术后患者对接受CR自主性易受外部条件影响,自主性较低者往往对他人依赖更强,参与康复时更倾向于被动配合;通过解决运动时间与地点安排、交通支持等现实障碍,可在一定程度上提升其参与意愿与主动性[12]。对于过程焦虑较高的患者,其担忧多源于对康复环境、群体互动及训练过程不确定性的陌生与恐惧,采用循序渐进的康复宣教与体验式引导(如观看康复运动课程、在非治疗情境下提前接触康复群体、结合患者偏好选择运动形式等)有助于降低其焦虑水平。此外,结果焦虑较高的患者常因自觉身体脆弱、对康复效果缺乏信心,甚至产生“康复训练可能影响预后”的非理性担忧,从而降低坚持康复的意愿[23]。当过程焦虑与结果焦虑叠加时,即使患者具备一定自主康复意愿,也可能因恐惧而回避训练。综上,降低过程焦虑与结果焦虑应成为CVR术后患者CR管理的重点。建议在正式启动CR前开展针对性心理评估与风险沟通,通过运动前指导、康复前会议或结构化宣教纠正不合理信念,并逐步引导患者进入康复训练,以促进其依从性并改善康复体验[12]。

3.2 瓣膜返流程度、病人对护理的认知是CR心理需求的自主性的独立影响因素

本研究发现,瓣膜返流程度与CVR术后患者CR心理需求的自主性呈负相关(P=0.048)。瓣膜返流是由于瓣叶无法完全对合,导致血液在心脏收缩或舒张期从高压腔室逆流回低压腔室,从而引发容量负荷过重、心腔扩大和心功能不全的连锁反应[24]。急性瓣膜返流前负荷剧增,但心室来不及代偿扩大,左房压急剧升高,很快导致肺水肿和心源性休克;慢性瓣膜返流有长达数年至数十年代偿期,症状出现晚,一旦出现活动耐量下降、呼吸困难,常提示心肌已进入失代偿阶段[25]。瓣膜返流是影响心血管疾病进展与死亡风险的重要因素[26],不管是急性瓣膜返流,还是慢性瓣膜返流,由于不可逆的结构性病变,患者心功能受损明显,身体常伴随各种不适症状,患者更易产生无助感与疾病威胁感[27],瓣膜返流还可能进展为心力衰竭,进一步降低患者参与康复训练的信心与主动性,表现为自主性下降[28]。

值得关注的是,患者对护理的认知越高而自主性越低(P<0.001),提示其可能存在一定护理依赖倾向。心脏术后患者因胸部创伤与心功能受限,早期高度依赖专业护理,因此往往更加关注护理过程与细节,其对护理质量的感知可影响心理适应与自我管理行为[29-30]。当患者对专业护理形成高度信任并倾向于完全依赖时,将弱化其自我管理责任感与康复决策参与度,进而影响实施康复的自主性。因此,临床工作中应从“替代性照护”转向“赋能式护理”,通过高质量护患沟通与协作式CR指导,提升患者对康复计划的安全感、可控感与执行动机[31-33]。具体策略包括:定期收集并反馈患者对护理的体验与评价,及时澄清不合理认知;在康复过程中引入共享决策,围绕可达成的短期目标与长期目标共同制定计划;采用循序渐进的方式增加患者自我管理任务(如自我监测、运动记录、症状识别与处理),将专业护理支持转化为患者自我效能的提升,从而促进其康复自主性的形成与巩固。

3.3 情感因素与CR心理需求的过程焦虑呈正相关

本研究结果显示,情感因素与CVR术后患者CR心理需求的过程焦虑呈正相关(P=0.003)。情绪在心理机制上是个体判断与决策的重要驱动力,焦虑、恐惧等负性情绪会干扰患者对康复方案的理解与选择[34],强烈或持续负面情绪降低患者对康复信息的接纳与自我调节能力[35]。患者对康复训练过程中的不确定性、身体不适或潜在风险更易产生威胁性解读,进而诱发灾难化思维并放大对康复过程的担忧[36]。此外,情绪调节消耗大量认知资源,可能导致患者过程焦虑加重并影响康复积极性[37-38]。因此,对于过程焦虑水平较高的患者,建议在CR启动前开展系统的心理评估与分层管理,提供心理支持与干预,如正念减压训练、认知行为疗法相关技巧指导等,以提升其情绪调节能力与应对效能,从而降低过程焦虑并促进康复依从性。

3.4 主要照顾者年龄越大CR心理需求的总体焦虑水平越低

本研究结果显示,主要照顾者年龄与CR心理需求的过程焦虑(P=0.046)、结果焦虑均(P=0.028)呈负相关,即主要照顾者年龄越大,患者在CR中的总体焦虑水平越低,该发现与既往研究结果一致[39-40]。可能的解释是,年长照顾者通常具备更丰富的生活阅历与疾病照护经验,面对患者术后不适与康复不确定性更能保持情绪稳定,并提供持续的情感支持与行为督导,从而缓冲患者对康复过程的恐惧,增强其对康复

效果的信心。相较之下,年轻照顾者往往同时承担工作压力与家庭照护等多重角色,其时间与精力投入受限,可能出现情绪波动与照护持续性不足,不利于患者形成对CR结果的积极预期与坚持动力。因此,建议在CR启动前对患者家庭支持系统进行系统评估,优先选择照护能力更稳定、可持续投入的家庭成员担任主要照顾者。对于由年轻照顾者承担主要照护的家庭,应进一步识别其照护障碍因素,提供针对性的照护技能培训、心理减压与支持资源,并结合需要给予临时替代照护或喘息服务,以提升照顾者能力与支持质量,从而降低患者康复焦虑并促进康复依从性。

综上所述,CVR术后患者CR呈"高焦虑-高自主性"的特征,总体受生理、心理、社会支持及治疗相关因素共同影响。但本研究为单中心横断面研究,样本代表性有限,普适性不足。横断面研究仅能揭示变量间的相关性,无法明确因果关系与长期作用机制,且未对患者远期康复预后进行动态随访,缺乏干预效果验证。后续可开展多中心、大样本纵向研究,明确各因素对CR特征的因果效应,促进结论推广应用。针对患者"高焦虑-高自主性"的康复特征,结合器质变化、护理认知、情感反应及家庭照顾因素,构建个体化分层CR干预方案,并通过远期随访验证其临床疗效,完善心脏瓣膜术后全程康复护理模式。

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