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国际功能、残疾和健康分类理念下的作业训练对脑卒中患者认知功能、心理状态和生活质量的影响*

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摘要 目的:探讨国际功能、残疾和健康分类(ICF)理念下的作业训练对脑卒中患者认知功能、心理状态和生活质量的影响。**方法:**选取我院 2018 年 1 月~2020 年 1 月收治的脑卒中患者 140 例,根据随机数字表法,分成观察组(n=70)、对照组(n=70)。对照组行常规作业训练,观察组采用基于 ICF 理念下的作业训练。两组均观察 3 个月,分别在干预前、干预 3 个月后,经蒙特利尔认知评估量表(MOCA)评价两组认知功能的变化。经抑郁自评量表(SDS)、焦虑自评量表(SAS)分析患者的焦虑、抑郁情况。经 Fugl-Meyer 运动功能评定量表(FMA)、功能综合评定量表(FCA)评估患者运动功能、综合功能。利用健康状态调查量表(SF-36)评估两组生活质量。**结果:**两组干预后 MOCA 评分高于干预前,且观察组高于对照组($P<0.05$)。两组干预后 SDS、SAS 评分低于干预前,且观察组低于对照组($P<0.05$)。两组干预后 FMA、FCA 评分高于干预前,且观察组高于对照组($P<0.05$)。两组干预后 SF-36 各维度评分均高于干预前,且观察组高于对照组($P<0.05$)。**结论:**基于 ICF 理念下的作业训练能进一步改善脑卒中患者的认知功能以及心理状态,且有利于提升运动功能与综合功能,改善生活质量。

关键词:脑卒中;ICF 理念;认知功能;心理状态;生活质量;作业训练

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The Effect of Operation Training under the Concept of International Functioning, Disability and Health Classification on Cognitive Function, Mental State and Quality of Life of Stroke Patients*

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ABSTRACT Objective: To explore the effects of operation training under the concept of international functioning, disability and health classification (ICF) on cognitive function, mental state and quality of life of stroke patients. **Methods:** 140 stroke patients admitted to our hospital from January 2018 to January 2020 were selected. According to the random number table method, patients were randomly divided into observation group (n=70), control group (n=70). The control group received routine rehabilitation training, and the observation group used operation training based on the ICF concept. Both groups were observed for 3 months. Before intervention and 3 months after intervention, the changes of cognitive function were evaluated by the Montreal cognitive assessment scale (MOCA) scale. The patients' anxiety and depression were analyzed by self rating depression scale (SDS), self rating anxiety scale (SAS) scale. Fugl-meyer assessment scale (FMA) and functional comprehensive assessment scale (FCA) were used to evaluate the motor function and comprehensive function of patients. Medical outcomes study 36-item short-form health survey (SF-36) scale was used to evaluate the quality of life of the two groups. **Results:** The MOCA score of the two groups after intervention was higher than that before intervention, and the observation group was higher than the control group ($P<0.05$). The SDS and SAS scores of the two groups after intervention were lower than before intervention, and the observation group was lower than the control group ($P<0.05$). The FMA, FCA score of the two groups after intervention were higher than those before intervention, and the observation group was higher than the control group ($P<0.05$). The scores of SF-36 in all dimensions of both groups after intervention were higher than those before intervention, and the observation group was higher than the control group ($P<0.05$). **Conclusion:** Operation training based on the ICF concept can further improve the cognitive function and mental state of patients with stroke, and is conducive to improve motor function and comprehensive function, and improve the quality of life.

Key words: Stroke; ICF concept; Cognitive function; Mental state; Quality of Life; Operation training

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前言

脑卒中患者在发病后 3~6 个月内难以实现生活自理,日常生活需要他人的帮助,且约 36% 的病例在发病 5 年内存在不同程度的功能障碍^[1]。康复训练是改善脑卒中患者功能障碍的重要手段,目前常用训练方式包括作业治疗、运动治疗、语言治疗等,其中作业治疗能从病人整体角度进行考虑,致力于使患者参与日常社会活动,提升生活自理能力^[2,3]。然而,有研究指出,现阶段的作业疗法仅注重于肢体功能训练,尚未体现人与环境相互作用、相互影响的特点,缺少人文关怀,患者在训练过程中,易丧失信心^[4]。国际功能、残疾和健康分类(International classification of functioning, disability and health, ICF) 理念是由世卫组织提出的康复训练指导理念,它提倡采用生物-医学-心理模式,以病人为中心,充分了解患者及其家属意愿,并对其身体状态、家居环境进行评价,与患者及其家属共同设定干预目标,以团队形式开展作业训练^[5]。脑卒中后康复训练时间较长,ICF 理念与该病的康复训练特征相符,适用于对其作业训

练进行指导。本研究主要观察 ICF 理念下的作业训练对脑卒中患者认知功能、心理状态和生活质量的影响,报道如下。

1 资料与方法

1.1 一般资料

选取我院 2018 年 1 月~2020 年 1 月收治的脑卒中患者 140 例,纳入标准:(1)符合王拥军编撰的《基层脑血管病规范诊疗手册》^[6]中关于脑卒中的诊断标准;(2)生命体征处于稳定状态;(3)存在肢体障碍;(4)格拉斯哥昏迷评分>8 分;(5)意识清醒,具备一定表达能力,能配合作业训练;(6)患者知情同意。排除标准:(1)恶性肿瘤;(2)既往有脑外伤史;(3)关节活动时疼痛难忍;(4)患有其他对生活质量影响较大的疾病,如老年痴呆、帕金森等;(5)肺、肝、肾等脏器严重损害;(6)经影像学检查,提示存在脑白质疏松或明显脑萎缩;(7)既往有精神病史。根据随机数字表法,分成观察组(n=70)、对照组(n=70)。两组基线资料比较无统计学差异($P>0.05$),均衡可比。见表 1。

表 1 两组基线资料比较

Table 1 Comparison of baseline data between the two groups

Baseline data		Observation group (n=70)	Control group(n=70)	χ^2/t	P
Gender	Male	39	36	0.259	0.611
	Female	31	34		
Age(years old)		61.29±10.75	60.46±9.13	0.492	0.623
Diseased side	Left side	29	31	0.567	0.753
	Right side	34	30		
	Bilateral side	7	9		
Education degree	Primary school and below	31	32	0.740	0.864
	Junior middle school	20	23		
	High school	12	10		
	College or above	7	5		
Disease course(months)		3.81±1.26	3.78±1.15	0.147	0.883
Disease type	Cerebral hemorrhage	12	14	0.189	0.664
	Cerebral infarction	58	56		

1.2 干预方法

对照组行常规作业训练,常规训练包括坐起、站立、坐位、站起、坐下、行走等平衡训练,40 min/次,1 次/d。吞咽、发音训练 40 min/次,1 次/d。上肢功能训练(如抓木棍、推塑料杯等),20 min/次,1 次/d。日常生活训练(如梳头、刷牙、拿筷子等)40 min/次,1 次/d。其他运动项目包括翻身、牵张、关节运动等,根据患者耐受度与身体素质确定运动频率与时间。观察组采用基于 ICF 理念下的作业训练。(1)成立作业干预团队:应 ICF 团队干预理念的要求,本次成立了干预团队,成员包括治疗师 1 人,医师 1 人,护士 5 人,护士长 1 人,共同为患者制定短期康复目标。所有人员均在入组前接受培训,并通过考核。(2)参考 ICF 核心分类量表^[7]评估患者身体状况:查看脑卒中 ICF 核心

分类量表,从中筛选与患者康复训练相关的条目制作成身体功能评估量表。在训练前,参考量表内容对患者身体功能进行评估。本次制作量表包括身体功能、身体结构、活动与参与 3 项内容,共计 17 个类目,每项计 0~4 分,0 分为完全无障碍,4 分为严重障碍,分值越高,提示身体功能越差。(3)参考 ICF 核心分类量表制作作业训练表:在 ICF 核心分类量表指导下,根据患者的具体情况行个性化训练,1 次/d,训练时间与强度根据患者适应能力进行调整^[7]。(4)质量控制:为了确保研究结果可靠,所有病例的身体功能均由同一治疗师予以评估,且由医院组建专家团队,对整个干预情况进行监督与管理,及时纠错。

1.3 观察指标

两组均干预 3 个月。分别在干预前、干预后,对患者的认知

功能、心理状态、运动功能、生活质量进行评估。各量表均发放 140 份,回收 140 份,回收率为 100%。所有患者均具备一定表达能力,在发放量表后,由护士简单讲述量表内容,患者独立填写。若患者无法填写,则由护士朗读调查问卷内容,询问患者选项,并做好记录。(1) 认知功能:经蒙特利尔认知评估量表(Montreal cognitive assessment scale, MOCA)评价两组认知功能的变化。MOCA 评分^[8]:该量表包括定向力、视空间执行力、语言能力、记忆、延迟记忆、注意力、命名、抽象思维 8 项内容,共计 30 分,总分 ≥ 26 分为认知正常,分值越高,认知功能越好。若受试者受教育时间 <12 年,则需加 1 分,校正偏倚。(2) 情绪状态:经抑郁自评量表(Self rating depression scale, SDS)^[9]、焦虑自评量表(Self rating anxiety scale, SAS)^[10]分析患者的焦虑、抑郁情况。SDS 包括情绪低沉、睡眠、食欲等 20 个条目,分别计 1~4 分,以 53 分为临界值,低于 53 分为无抑郁,高于 53 分为有抑郁,分值越高,抑郁越重。SAS 包括害怕、乏力、惊恐等 20 个条目,分别计 1~4 分,以 50 分为临界值,低于 50 分为无焦虑,高于 50 分为有焦虑,分值越高,焦虑越重。(3) 运动功能与综合功能:经 Fugl-Meyer 运动功能评定量表(Fugl-meyer assessment, FMA)^[11]、功能综合评定量表(Functional comprehensive assessment, FCA)^[12]对患者运动功能、综合功能进行评价。

FMA 评分包括屈肌协同运动、反射活动、伸肌协同运动等 17 个条目,每项计 0~2 分,总分为 34 分,分值越高,运动功能越好。FCA 评分包括躯体功能(自我照料、括约肌功能、转移、行走等)、认知功能(交流、社会认知等)两个部分,共计条目 18 个,每项赋 1~6 分,总分范围为 18~108 分,分值越高,提示功能越好。(4) 生活质量:经健康状态调查量表(Medical outcomes study 36-item short-form health survey, SF-36)^[13]评估两组生活质量。SF-36 评分包括生理功能、总体健康、躯体疼痛、生理职能、精神健康、活力、情感职能、社会功能 8 个维度,将每项分值转换成 0~100 分,分值越高,生活质量越好。

1.4 统计学方法

经 SPSS24.0 软件行数据分析,计量资料以 $(\bar{x} \pm s)$ 表示,行 t 检验。计数资料用(%)表示,行 χ^2 检验。检验水准为 $\alpha=0.05$ 。

2 结果

2.1 干预前后 MOCA 评分比较

两组干预前 MOCA 评分比较无差异($P>0.05$),干预后两组 MOCA 评分高于干预前,且观察组较对照组高($P<0.05$),见表 2。

表 2 两组干预前、后 MOCA 评分比较(分, $\bar{x} \pm s$)

Table 2 Comparison of MOCA scores between the two groups before and after intervention(scores, $\bar{x} \pm s$)

Groups	MOCA	
	Before intervention	After intervention
Observation group(n=70)	20.39 $\pm$ 3.27	24.83 $\pm$ 3.06 [°]
Control group(n=70)	21.17 $\pm$ 2.09	23.54 $\pm$ 2.98 [°]
t	1.682	2.527
P	0.095	0.013

Note: compared with before intervention, [°] $P<0.05$.

2.2 干预前后 SDS、SAS 评分比较

两组干预前 SDS、SAS 评分比较无差异($P>0.05$)。干预后

两组各评分均低于干预前,且观察组较对照组低($P<0.05$),见表 3。

表 3 两组干预前、后 SDS、SAS 评分比较(分, $\bar{x} \pm s$)

Table 3 Comparison of SDS and SAS scores between the two groups before and after intervention(scores, $\bar{x} \pm s$)

Groups	SDS		SAS	
	Before intervention	After intervention	Before intervention	After intervention
Observation group(n=70)	48.63 $\pm$ 7.84	40.19 $\pm$ 5.42 [°]	47.46 $\pm$ 6.78	38.53 $\pm$ 5.32 [°]
Control group(n=70)	47.07 $\pm$ 8.02	43.74 $\pm$ 4.56 [°]	46.19 $\pm$ 7.23	41.47 $\pm$ 6.71 [°]
t	1.164	4.193	1.072	2.873
P	0.247	0.000	0.286	0.005

Note: compared with before intervention, [°] $P<0.05$.

2.3 两组干预前后 FMA、FCA 评分比较

干预前两组 FMA、FCA 评分比较无差异($P>0.05$)。干预后两组 FMA、FCA 评分均高于干预前,且观察组较对照组高($P<0.05$),见表 4。

2.4 两组干预前后 SF-36 评分比较

干预前两组 SF-36 各维度评分比较无差异($P>0.05$)。干

预后两组各维度评分均较干预前高,且观察组较对照组高($P<0.05$),见表 5。

3 讨论

脑卒中是导致中、老年人出现认知障碍的重要因素,致残率、死亡率均非常高^[14,15]。研究表明,在脑血管病幸存者中,5 年

表 4 两组干预前、后 FMA、FCA 评分比较(分, $\bar{x} \pm s$)Table 4 Comparison of FMA and FCA scores between the two groups before and after intervention(scores, $\bar{x} \pm s$)

Groups	FMA		FCA	
	Before intervention	After intervention	Before intervention	After intervention
Observation group(n=70)	23.64±2.74	28.54±2.65 [°]	33.91±8.85	42.34±6.52 [°]
Control group(n=70)	24.02±3.06	26.71±3.11 [°]	34.56±7.63	39.14±6.71 [°]
t	0.774	3.747	0.465	2.862
P	0.440	0.000	0.642	0.005

Note: compared with before intervention, [°] P<0.05.表 5 两组干预前、后 SF-36 评分比较(分, $\bar{x} \pm s$)Table 5 Comparison of SF-36 scores between the two groups before and after intervention(scores, $\bar{x} \pm s$)

Groups		Observation group (n=70)	Control group(n=70)	t	P
Physiological function	Before intervention	61.39±6.51	60.81±7.13	0.503	0.616
	After intervention	69.62±5.19 [°]	66.53±5.81 [°]	3.318	0.001
Physical pain	Before intervention	56.49±6.34	55.92±7.13	0.500	0.618
	After intervention	67.42±6.78 [°]	63.56±5.89 [°]	3.596	0.000
Physiological enginery	Before intervention	58.92±7.34	59.62±6.85	0.583	0.561
	After intervention	67.59±6.45 [°]	64.42±5.01 [°]	3.247	0.002
Vitality	Before intervention	52.39±5.57	53.15±6.06	0.773	0.441
	After intervention	66.32±4.86 [°]	60.30±5.74 [°]	6.697	0.000
Emotional function	Before intervention	54.13±5.54	53.46±4.98	0.753	0.453
	After intervention	64.66±5.04 [°]	60.45±6.12 [°]	4.443	0.000
Social function	Before intervention	52.95±6.35	53.46±5.96	0.490	0.625
	After intervention	62.31±5.56	58.32±4.71	4.581	0.000
Mental health	Before intervention	55.63±6.34	54.92±5.88	0.687	0.493
	After intervention	67.38±5.32 [°]	62.51±6.13 [°]	5.020	0.000
General health	Before intervention	61.29±7.43	62.43±6.48	0.967	0.335
	After intervention	69.83±6.44 [°]	66.39±5.13 [°]	3.496	0.001

Note: compared with before intervention, [°] P<0.05.

内复发率约为 40%^[16]。作业训练对改善这类患者预后而言至关重要,但对脑卒中病人而言,训练内容较多,患者出院后身体机能状态较差,可能在初期训练时出现不适应现象^[17]。部分病例对训练效果期待过高,认为通过短期训练便可促使运动功能恢复至正常状态,当未能取得预期效果时,容易产生放弃治疗心理,导致预后欠佳。因此,医护人员的康复指导与人文关怀在患者训练期间亦非常重要。目前,ICF 理念在康复训练指导中发挥着重要作用,该理念与临床作业训练的理念构成非常契合,两者均非常重视认知技能、运动功能、心理状态方面的改善^[18,19]。ICF 理念不仅重视患者个人因素,也非常注重环境因素对其状态的影响,从多方面角度考虑问题,为其制定个性化训练方案^[20]。

认知障碍是脑卒中后常见的一种并发症,也是影响其生活质量的重要因素^[21]。本结果显示,与常规训练相比,基于 ICF 理念指导下的作业训练能提升患者的认知功能。在本次研究中,

医院组建了干预团队,发挥集体智慧,共同制定训练计划,在训练前,团队根据 ICF 核心分类量表制定评估量表,分析患者的身体功能情况,为个性化方案的制定提供依据。在制定作业训练计划时,干预人员根据评估结果给予针对性训练,患者于 ICF 理念指导下,坚持以作业治疗为主,运动疗法、肌力训练为辅的原则,在该模式下进行运动锻炼,能进一步提高海马神经功能,从而提升患者的学习能力、记忆能力,改善认知功能。此外,有针对性的运动锻炼与作业治疗对新生神经元突触成熟有促进作用,可使海马环路结构以及新生神经元的功能相结合,提升突触可塑性,改善认知细胞功能,从而提高认知能力。传统的作业训练部分内容干预缺乏针对性,并未根据患者自身的身体功能情况调整训练方案,存在较多片面性^[22,23]。然而,ICF 核心要素充分考虑了患者各方面的身体机能状态,且根据其身体状态制定干预计划,弥补了传统训练方案的不足。研究表明,ICF 理念的应用可提升患者的主观能动性与其脑部活动量,有

利于认知网络重建以及大脑功能改善^[24]。黄珂等^[25]发现,基于ICF的指导训练能延缓认知功能减退,进一步证实ICF作业训练对改善认知功能有积极意义。

脑卒中患者需要长期进行作业训练,改善运动功能,但在训练期间,患者可能因受各种因素影响(如运动耐力欠佳、对疗效预期过高等),引起负面情绪,如焦虑、抑郁等,对作业训练依从性影响较大^[26,27]。本次结果提示,两组经干预后,焦虑、抑郁情绪均改善,且运动功能、综合功能均提升,其中观察组改善效果更明显,这表明ICF作业训练能进一步调整患者的负面情绪,改善运动功能与综合功能。ICF作业训练考虑到了人体系统的各个方面,如机体功能、结构等,此外,还考虑到了个人因素对其身体状况的影响^[28-30]。对脑卒中患者而言,需要经历不同阶段、不同程度的功能障碍,脑卒中ICF核心量表内容则与其病情匹配,在其所包含的活动与参与、身体结构以及身体功能项目中,充分考虑到作业表现范围与患者身体机能的适应性,大大提升了作业训练的合理性、针对性。因此,ICF作业训练能更有效的改善脑卒中患者的负面情绪、运动功能以及综合功能。本次结果提示,与常规作业训练相比,ICF作业训练能进一步提升患者的生活质量。其原因可能在于,ICF作业训练模式更符合脑卒中患者的病情需求,可通过改善其认知障碍、情绪状态、运动功能,达到提升生活质量的目的^[31-33]。

综上,ICF作业训练从身体功能、身体结构、活动与参与等三项内容,为患者制定个体化训练策略,可进一步提升其认知功能、运动功能以及综合功能,改善负面情绪,提升生活质量。

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