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油田作业人员职业紧张状况调查及心理障碍的影响因素分析*

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摘要 目的:调查油田作业人员职业紧张状况,并分析心理障碍的影响因素。**方法:**通过分层整群抽样法纳入 600 例油田作业人员作为研究对象,采用职业紧张量表(OSI-R)以及症状自评量表(SCL-90)对油田作业人员的职业紧张程度以及心理障碍状况进行评估,并按照 SCL-90 评分将其分为研究组(SCL-90 评分>160 分)214 例与对照组(SCL-90 评分≤160 分)386 例,采用多因素 Logistic 回归分析油田作业人员心理障碍的影响因素。**结果:**研究组年龄<45 岁、受教育程度为本科及以上、工龄<20 年人数占比均高于对照组(均 $P<0.05$)。研究组职业任务问卷(ORQ)、个体紧张反应(PSQ)评分均高于对照组(均 $P<0.05$)。研究组重度职业紧张程度人数占比高于对照组($P<0.05$)。经多因素 Logistic 回归分析发现:年龄<45 岁、受教育程度本科及以上、工龄<20 年、重度职业紧张均是油田作业人员心理障碍的独立危险因素(均 $P<0.05$)。**结论:**油田作业人员职业紧张状况不容乐观,重度职业紧张、年龄较小、工龄较短及受教育程度较高的油田工作人员发生心理障碍的风险往往较大。临床工作中可通过降低油田作业人员的职业紧张程度,继而达到降低心理障碍发生几率的目的。

关键词:油田作业人员;心理障碍;职业紧张;调查;影响因素

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Investigation on Occupational Stress of Oilfield Work Peoples and Analysis of Influencing Factors of Psychological Disorders*

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ABSTRACT Objective: To investigated the influencing factors of occupational stress, and to analyzed psychological disorders of oilfield work peoples. **Methods:** 600 oilfield work peoples in a certain area were included as research objects by stratified cluster sampling, and occupational stress scale (OSI-R) and symptom self-rating scale (SCL-90) were used to evaluate the occupational stress and psychological disorders of oilfield work peoples. They were divided into study group (SCL-90 score>160 points) 214 cases and control group (SCL-90 score ≤ 160 points) 386 cases according to SCL-90 score. The influencing factors of psychological disorders of oilfield work peoples were analyzed by multivariate Logistic regression. **Results:** The proportion of peoples in the study group whose age<45 years old, educational level with bachelor degree or above, and working age<20 years were higher than those in the control group (all $P<0.05$). The scores of occupational role questionnaire (ORQ) and personal strain questionnaire (PSQ) in the study group were higher than those in the control group ($P<0.05$). The proportion of peoples with severe occupational stress in the study group was higher than that in the control group ($P<0.05$). Multivariate Logistic regression analysis showed that age<45 years old, educational level with bachelor degree or above, working age<20 years, and severe occupational stress were all independent risk factors for psychological disorders of oilfield work peoples (all $P<0.05$). **Conclusion:** The occupational stress of oilfield work peoples is not optimistic. The risk of psychological disorder is often higher among oilfield work peoples with severe occupational stress, younger age, shorter working life and higher educational level. Clinical work can reduce the occupational stress of workers, and then reduce the incidence of psychological disorders.

Key words: Oilfield work peoples; Psychological disorders; Occupational stress; Investigation; Influencing factors

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前言

据报道,世界范围内精神心理障碍性疾病的发病率正呈逐

年升高趋势,已成为严重威胁人类生活质量的一类重要疾病^[1,2]。

其中心理障碍的发病因素较为复杂,随着传统生物医学模式开始朝着生物-心理-社会模式的转变,不少研究学者发现职业

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紧张可能在心理障碍的发生、发展过程中起着至关重要的作用^[34]。已有研究报道证实,长期的高水平压力所导致的一系列紧张属于心理障碍的危险因素^[56]。油田作业人员属于特殊职业人群,绝大部分工作场地均处于偏僻荒凉的戈壁沙漠地带,长期在风沙大、干旱炎热的恶劣环境内工作,加之工作强度相对较大,与家庭成员聚少离多,导致其出现明显的职业紧张,而长期的职业紧张可能会对油田作业人员的心理健康造成不良影响,进一步导致抑郁、焦虑以及强迫等心理障碍疾病的发生^[78]。鉴于此,本文对油田作业人员职业紧张状况进行了调查并对心理障碍的影响因素予以分析,旨在为有效降低油田作业人员心理障碍疾病的发生风险提供参考依据,现作以下报道。

1 资料与方法

1.1 一般资料

通过分层整群抽样法纳入 600 例油田作业人员作为研究对象。其中男 325 例,女 275 例,年龄 27~58 岁,平均年龄(45.22±7.48)岁;受教育程度:大专及以下 447 例,本科及以上 153 例;工龄<20 年 157 例,≥20 年 443 例;职称:初级及以下 255 例,中级及以上 345 例;婚姻状况:已婚 459 例,未婚/离异 141 例;不良生活习惯:吸烟 427 例,饮酒 499 例;收入情况:收入<4000 元 162 例,≥4000 元 438 例。纳入标准:(1)年龄≥18 周岁;(2)工龄≥1 年。排除标准:(1)既往有焦虑症、抑郁症、精神分裂症以及双向情感障碍等心理障碍疾病史者;(2)无法完成本研究相关调查评估者。

1.2 研究方法

(1)采用职业紧张量表^[9](Occupational stress inventory revised edition, OSI-R)对所有油田作业人员的职业紧张程度进行

评估,主要内容包含职业任务问卷(Occupational role questionnaire, ORQ)、个体紧张反应(Personal strain questionnaire, PSQ)以及个体应对资源(Personal resources questionnaire, PRQ)3 个部分组成,涵盖 14 个子项,共有 140 个项目,每个项目均实施五级计分法,得分越高反映机体职业紧张程度越高,并根据 OSI-R 得分将所有油田作业人员分为低度职业紧张(OSI-R 得分<140 分)、中度职业紧张(OSI-R 得分为 140~180 分)、重度职业紧张(OSI-R 得分>180 分)。(2)以症状自评量表^[10](Symptom Check-List 90, SCL-90)完成所有油田作业人员心理障碍情况的评估,主要内容涵盖 9 个维度,共 90 个项目,每个项目均实施五级计分法,得分越高反映机体心理障碍程度越明显,并将总分>160 分记为存在心理障碍,记为研究组(n=214),反之≤160 分记为正常,记为对照组(n=386)。(3)采用中国科学院大学华北医院自制的人口学特征调查问卷进行油田作业人员人口学特征的统计、记录,主要内容涵盖年龄、性别、工龄、受教育程度、职称、婚姻状况、吸烟、饮酒、收入等。

1.3 统计学方法

数据分析主要是借助 SPSS20.0 软件完成,以[n(%)]表示计数资料,实施 χ^2 检验。以($\bar{x} \pm s$)表示计量资料,实施 t 检验。等级资料采用秩和检验,采用多因素 Logistic 回归分析油田作业人员心理障碍的影响因素。 $P<0.05$ 说明差异有统计学意义。

2 结果

2.1 两组人口学特征资料对比

研究组年龄<45 岁、受教育程度本科及以上、工龄<20 年人数占比均高于对照组(均 $P<0.05$),见表 1。

表 1 两组人口学特征资料对比[n(%)]

Table 1 Comparison of demographic characteristics between two groups [n(%)]

Demographic characteristic		Study group(n=214)	Control group(n=386)	χ^2	P
Gender	Male	124(57.94)	201(52.07)	1.912	0.167
	Female	90(42.06)	185(47.93)		
Age	<45 years	194(90.65)	153(39.64)	146.937	0.000
	≥ 45 years	20(9.35)	233(60.36)		
Educational level	Junior college and below	143(66.82)	304(78.76)	10.321	0.001
	Bachelor degree or above	71(33.18)	82(21.24)		
Working age	<20 years	82(38.32)	75(19.43)	25.422	0.000
	≥ 20 years	132(61.68)	311(80.57)		
Title	Primary and below	88(41.12)	167(43.26)	0.259	0.611
	Intermediate and above	126(58.88)	219(56.74)		
Marital status	Married	164(76.64)	295(76.42)	0.003	0.954
	Unmarried/divorced	50(23.36)	91(23.58)		
Smoke	Yes	150(70.09)	277(71.76)	0.187	0.666
	No	64(29.91)	109(28.24)		
Drink	Yes	178(83.18)	321(83.16)	0.000	0.996
	No	36(16.82)	65(16.84)		
Income	<4000 yuan	61(28.50)	101(26.17)	0.382	0.536
	≥ 4000 yuan	153(71.50)	285(73.83)		

2.2 两组各项 OSI-R 评分对比

评分均高于对照组(均 $P < 0.05$),见表 2。

两组 PRQ 比较无统计学差异($P > 0.05$),研究组 ORQ、PSQ

表 2 两组各项 OSI-R 评分对比($\bar{x} \pm s$,分)

Table 2 Comparison of the scores of OSI-R between two groups($\bar{x} \pm s$, scores)

Groups	n	ORQ	PSQ	PRQ
Study group	214	179.12 $\pm$ 20.17	90.67 $\pm$ 18.31	120.47 $\pm$ 17.22
Control group	386	170.73 $\pm$ 18.27	84.22 $\pm$ 15.20	122.39 $\pm$ 13.58
t	-	5.190	4.622	1.504
P	-	0.000	0.000	0.133

2.3 两组职业紧张程度对比

0.05),研究组重度职业紧张人数占比高于对照组($P < 0.05$),见

两组职业紧张程度整体比较差异有统计学意义 ($P <$ 表 3。

表 3 两组职业紧张程度对比[n(%)]

Table 3 Comparison of occupational stress between two groups [n(%)]

Groups	n	Low occupational stress	Moderate occupational stress	Severe occupational stress
Study group	214	37(17.29)	112(52.34)	65(30.37)*
Control group	386	70(18.13)	230(59.59)	86(22.28)
Z	-		3.394	
P	-		0.019	

Note: Compared with the control group, * $P < 0.05$.

2.4 油田作业人员心理障碍的多因素 Logistic 回归分析

以心理障碍为因变量,存在心理障碍 =1,无心理障碍 =0。以年龄、受教育程度、工龄、职业紧张程度为自变量,其中自变量赋值情况如下:年龄 <45 岁 =1, ≥ 45 岁 =0;受教育程度本科及以上 =1,大专及以下 =0;工龄 <20 年 =1, ≥ 20 年 =0;重度

职业紧张 =1,低中度职业紧张 =0。经多因素 Logistic 回归分析发现:年龄 <45 岁、受教育程度本科及以上、工龄 <20 年、重度职业紧张均是油田作业人员心理障碍的独立危险因素(均 $P < 0.05$),见表 4。

表 4 油田作业人员心理障碍的多因素 Logistic 回归分析

Table 4 Multivariate Logistic regression analysis of psychological disorders of oilfield work peoples

Risk factors	Regression coefficient	Wald χ^2	Standard error	P	OR	95%CI
Age <45 years old	4.115	2.083	2.764	0.001	1.073	1.017~6.325
Educational level with bachelor degree or above	4.173	2.744	3.472	0.000	1.204	1.008~7.332
Working age <20 years	6.073	1.745	4.073	0.006	2.174	1.384~7.254
Severe occupational stress	4.275	1.463	2.572	0.012	2.305	2.018~8.657

3 讨论

职业紧张主要是由个体特征与职业环境因素共同作用,而引起工作需求超过个体应对能力导致的紧张反应^[11,12]。个体若长期处于过度紧张状态,极易引发精神抑郁、工作能力降低、工作满意度降低以及情绪低落等,继而可能对患者的生活质量造成严重影响^[13,14]。良好的心理健康状况在保障美好生活中起着决定性作用,亦是保障身体健康的基础,同时可能会对工作造成直接影响,国外已有不少文献提出,职业紧张程度和心理健康状况密切相关^[15-17]。油田工作人员因生活、工作环境的常年

恶劣,加之经常遭受物理性、化学性有害因素影响,继而可能导致身体健康出现严重损害,且复杂的人际沟通以及激烈的人才竞争亦会影响其心理健康^[18-20]。因此,针对油田工作人员的心理障碍进行早期有效的预防、干预显得尤为重要,亦是临床重点关注的问题之一。

本文结果显示年龄 <45 岁、受教育程度本科及以上、工龄 <20 年均是油田作业人员心理障碍的独立危险因素,表明年龄 <45 岁、受教育程度本科及以上、工龄 <20 年的油田工作人员的心理障碍发生风险更高。分析原因,我们认为 <45 岁人群普遍处于事业的上升期,且承担的任务和责任较大,因此压

力较大,加之该类人群正处于结婚、生子以及抚养孩子、赡养老人的阶段,工作和生活的双重压力若无法得到有效缓解,从而会引起紧张情绪的日益加剧,进一步增加了心理障碍的发生风险。而受教育程度本科及以上人员易发生心理障碍的可能原因在于该类人群在工作中往往处于较为关键的地位,所要付出的脑力劳动相对较大,工作压力更大,因此极易出现紧张情绪,从而心理障碍的发生风险更高^[21-23]。随着工龄的增加,工作经验的增加使得油田作业人员在工作和生活方面所面对的紧张源更少,所承受的职业压力亦较小,从而使得其发生心理障碍的几率降低^[24-26]。另有研究报道证实^[27],工龄较短的人员除了应付每天的必要任务,还需学习新知识以提高工作能力,加之内心希望被认可,从而使得自己暴露在各种压力之下,继而增加了职业紧张程度,促进了心理障碍的发生。此外,研究组重度职业紧张人数占比较对照组高,同时经多因素 Logistic 回归分析发现重度职业紧张是油田作业人员心理障碍的独立危险因素。这说明了职业紧张程度与心理障碍的发生存在密切相关,且随着职业紧张程度的升高,心理障碍发生概率越高。究其原因,笔者认为长期职业紧张情绪无法得到有效的缓解,易产生焦虑和抑郁的负面情绪,继而导致紧张程度的升高,并形成恶性循环,最终引发心理障碍^[28-30]。

综上所述,重度职业紧张、年龄较小、工龄较短及受教育程度较高的油田作业人员发生心理障碍的风险更高。临床工作中可通过降低油田作业人员的职业紧张程度,继而降低其心理障碍的发生率。

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