

An Epidemiological Study on Occupational Health Psychology in Health Care Professionals (Doctors, Physiotherapists, Nursing Professionals and Community Health Officers)

Dr. Deepak B Sharma¹, Dr. Himanshu K Sharma²

¹Professor, Department of Community Medicine, Pramukhswami Medical College, Bhaikaka University, Karamsad, Anand.

²Professor, Department of Psychiatry, Pramukhswami Medical College, Bhaikaka University, Karamsad, Anand.

Corresponding author: Dr. Deepak B Sharma

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ABSTRACT

Background: Occupational Health Psychology is the application of Psychology to improve the quality of work life, to protect, promote the safety, health, and well-being of workers. Occupational Health Psychology is to promote a happy and healthy workplace that benefits all employees.

Aim and objectives:

The study objectives were to estimate the stress level in health care professionals, job satisfaction attributes, coping mechanisms and different aspects of Professional quality of life in health care professionals.

Materials and Methods:

Study Design: Multi Method Design (Multiple approach Design)

1. Cross sectional study of 228 participants.
2. Solomon 4 group Design: Total 64 participants.

Different health care professionals viz Allopathic doctors, Physiotherapists, Nurses and Community Health Officers (CHOs) were study participants. 9 scales/questionnaires along with a sociodemographic and a qualitative proforma were finalized to achieve the objectives.

Results: Overall, the anxiety score was 9.38. The Post Hoc (LSD) test revealed, that the anxiety scores were significantly different for the Doctors and Physiotherapists group. Overall, the perceived stress score (Perceived stress scale- PSS score) was 18.40 and (Perceived stress Questionnaire-PSQ score) was .42. Resilient coping (Brief Resilient Coping Score-BRCS) and Flourishing scores were 14.81 and 46.25

Conclusion: A primary scientific assessment is required to study socio demographic correlates in Occupational health psychology. Once these are assessed, some intervention can be planned suitable to the individual and organizational needs to increase the resilient coping and reduce the burnout which may lead to flourishing.

Key words: Occupational Health Psychology, PSQ, PSS, FS, BRCS, Work satisfaction

INTRODUCTION

Occupational Health Psychology is the application of Psychology to improve the quality of work life, to protect, promote the

safety, health, and well-being of workers.”¹Health protection is by intervention in the work environment to reduce worker exposures to workplace

hazards, whereas health promotion is about individual-level interventions to enable workers with knowledge and resources to improve their health. One of the theories of work-related stress is contemporary interactional. Chronic job demands or poorly designed jobs tend to exhaust employees' resources in terms of mental and physical resources which might lead to the waning of energy and causes other health problems.^{2,3} Occupational Health Psychology is to promote a happy and healthy workplace that benefits all employees, their families, and ultimately the workplace.⁴ Such application should bring in a sense of belongingness to work place. Occupational Health Psychology is closely related to other scientific disciplines that are focused on worker health and safety like Ergonomics, Occupational medicine and Industrial hygiene. These are in addition to Psychology and Public health-related disciplines.⁴ The ILO defined psychosocial factors (hazards) in 1984. The definition emphasized on the dynamic interaction between the work environment and human factors. A negative interaction between occupational conditions and human factors may lead to emotional disturbances, behavioral and other problems. When working conditions and human factors are in balance, work creates a feeling of mastery and self-confidence. This increases motivation, working capacity and satisfaction and improves health.⁵ Dahlgren and Whitehead suggested that the factors which influences health can be categorized and can be seen as layers and these four layers translates into four levels of policy intervention.⁶ The current study was conducted with an aim to study the association between correlates in Occupational health psychology. The study objectives were

1. To estimate the stress level in health care professionals
2. To study job satisfaction attributes, coping mechanisms and different aspects of Professional quality of life in health care professionals.

3. To quantify the work place safety measures, preventive measures and the safety culture at work place. (Hospitals/ Colleges)

MATERIALS AND METHODS

Study Participants: Different health care professionals viz Allopathic doctors, Physiotherapists, Nursing professionals and Community Health Officers (CHOs) were study participants.

Study tools: 9 scales/questionnaires along with a sociodemographic and a qualitative proforma were finalized to achieve the objectives. These were

1. Workplace health and safety survey (WHSS)⁷
2. Workplace Wellbeing Questionnaire (WPWB)⁸
3. Professional Quality of Life Scale (ProQOL) version 5⁹
4. Brief Cope scale¹⁰
5. Perceived Stress Scale (PSS)¹¹
6. DASS-21¹²
7. Perceived Stress Questionnaire (PSQ)¹³
8. The Flourishing Scale (FS)¹⁴
9. Brief Resilience Coping scale (BRCS)¹⁵

Study Design: Multi Method Design (Multiple approach Design)¹⁶

1. Cross sectional study Design: Base pool of participants
2. Quasi experimental - Solomon four Non-equivalent control group study design^{17,18} for intervention

Sample size (N)

a. Cross sectional study design: $[DEFF * N_p (1-p)] / [(d^2 / Z^{2(1-\alpha/2)} * (N-1) + p * (1-p)]$
50% to keep the maximum sample size for the given set of particulars in sample size calculation.

Absolute Precision- 7%

Confidence limits as % of 100-/+ 7%

$Z_{2(1-\alpha/2)}$ = Standard normal variate (at 5% type I error $p = 0.05$, it is 1.96)

DEFF- Design effect-1

Confidence level - 95%

Based on the "p" and at 95% confidence limit, the calculated sample size was 196.

Considering 10 % non-response rate, the final sample size came to 216 which was finally completed to 228.

b. Quasi experimental design

Effect size $f = 0.25$

α err prob = 0.05

Power = 0.90

Number of groups = 4

Number of measurements = 2

Sample is 64

Keeping the intervention group participants in the overall sample size, the sample increased by 32 participants over the base sample from Group III and Group IV of Solomon 4 Group Design. 32 participants were taken from the base pool as Group I and Group II.

So, 260 was the overall sample size.

Sampling methods: Convenience sampling in 2 stages

Stage 1: Primary units (Institutions and Government Public health facilities)

Medical college hospital	Nursing School	2 District Blocks	Civil Hospital	3 Physiotherapy colleges
Doctors	Nurses	Nurses, CHOs	Doctors	Physiotherapists

Stage 2: Participants from the institutions: Those who actually agreed to participate and falls in the inclusion criteria.

The analysis is done in SPSS 15 version and the study is approved by IEC of the institute.

RESULTS

Table 1: Distribution of Participants by Professional groups and Gender

Professional Groups	Male	Female	Total
Doctors(Allopathic)	26(49.05)	23(11.11)	49(18.8)
Physiotherapists	18(33.96)	94(45.41)	112(43.1)
Nursing Cadre	2(3.7)	49(23.67)	51(19.6)
Community Health Officers(CHOs)	7(13.20)	41(19.80)	48(18.5)
Total	53(100.0)	207(100.0)	260(100.0)

In this study, 49 Allopathic Doctors, 112 Physiotherapists, 51 professionals from Nursing cadre, and 48 Community health

officers (CHO) participated. Mean age of the health care professionals in the study was 30.23 years.

Table 2: Distribution of health care professionals by Socio demographic variables

Socio demographic variables					
Income (Rs)	No(%)	Years of experience	No(%)	Marital Status	No(%)
<20000	56(21.5)	1-2	53(20.4)	Married	137(52.7)
20000-30000	22(8.5)	2-5	89(34.2)	Unmarried	121(46.5)
30000-50000	81(31.2)	5-10	65(25.0)	Divorcee	2(0.007)
50000-100000	69(26.5)	10-15	26(10.0)		
>100000	32(12.3)	15-20	12(4.6)		
		>20	15(5.8)		

31 % of the health care professionals were in the income range of Rs 30000-50000 followed by the bracket of Rs 50000-100000 .12% were having income more than Rs 1 lakh. 34% health care

professionals were having 2-5 years of work experience followed by 25% as 5-10 years work experience. 52% were married and 46 % were unmarried.

Table 3: Distribution of health care professionals by association between Personal attributes and constructs/components scores

Personal attributes	Correlation coefficient	Constructs/Components								
		WS	FS score	BRCS score	PSS score	S score	PSQ score	CSS	BO	STS
Age	Pearson correlation r p	.172 .005	.045 .473	.112 .072	-.207 .001	-.168 .007	-.158 .011	.032 .608	-.164 .008	-.091 .142
Income	Spearman Rank correlation r	.035 .572	.185 .003	.159 .010	-.334 .000	-.206 .001	-.312 .000	-.105 .093	-.095 .126	-.201 .001
Years of work in profession	p	.049 .436	.042 .501	-.037 .552	-.106 .088	-.072 .247	-.012 .843	-.064 .305	-.009 .891	.024 .704

Age was found to be significantly correlated with work satisfaction, perceived stress and burnout. Stress and burnout measures were negatively correlated. Income was found to a

significantly correlated with flourishing, resilient coping, stress. Years of work was not found to be significant with any of the constructs.

Table 4: Distribution of health care professionals by Attributes and constructs/components scores

Attributes		Constructs/Components								
		WS	FS score	BRCs score	PSS score	S score	PSQ score	CSS	BO	STS
Gender										
Male(53)		28.08 6.41	45.83 7.35	16.13 2.3	16.28 6.56	11.70 8.7	.38 .16	38.04 5.03	23.64 4.5	24.0 5.788
Female(207)		26.15 5.96	46.36 6.68	14.47 3.17	18.94 5.67	11.90 8.64	.43 .15	39.66 6.03	23.77 5.2	25.44 6.7
T test	t	2.06	-.502	3.56	-2.94	-.154	-1.7	-1.8	-.16	-1.4
	p	.04	.616	.00	.004	.878	.08	.07	.87	.15
Marital Status										
Married (137)		27.61 5.9	46.07 6.7	14.91 2.96	17.99 5.7	10.54 7.8	.40 .14	39.65 6.17	23.09 4.8	24.52 6.71
Unmarried (123)		25.35 6.02	46.46 6.87	14.71 3.2	18.86 6.1	13.33 9.29	.44 .16	38.98 5.51	24.47 5.2	25.85 6.36
T test	t	3.03	-.46	.51	-1.18	-2.63	-2.22	.923	-2.2	-1.6
	p	.003	.646	.60	.236	.009	.027	.357	.029	.10
Type of Institution										
Govt (87)		26.28 5.986	43.70 6.682	13.87 2.893	19.98 4.555	12.44 8.993	.44 .13	40.63 6.325	24.07 5.50	25.52 6.49
Pvt (173)		26.68 6.162	47.53 6.531	15.28 3.087	17.61 6.406	11.57 8.481	.41 .16	38.68 5.538	23.58 4.88	24.97 6.63
T test	t	-.499	-4.428	-3.54	3.08	.760	1.41	2.56	.732	.638
	p	.618	0.000	0.00	.002	.448	.157	.011	.465	.524

Significant differences were seen between gender and work satisfaction, resilient coping and stress. There was a significant difference between the measures of flourishing, resilient coping, stress and compassion satisfaction between the two

groups of work institution as govt and private. The two groups of married and unmarried was found to be significantly different in work satisfaction, stress and burnout with positive scores higher for married and lower for negative scores.

Table 5: Distribution of health care professionals by the mean scores of different constructs/components scores

Professional Groups	Constructs/Components						
	Perceived stress scale (PSS)		Perceived stress questionnaire (PSQ)		DASS 21 Scale		
	PSS score Mean SD		PSQ score Mean SD		Depression Mean SD	Anxiety Mean SD	Stress Mean SD
Doctors	14.51 7.447		.33 .18		6.41 7.199	7.35 7.052	10.00 7.979
Physiotherapists	19.34 5.41		.45 .14		11.23 9.636	10.93 8.607	12.80 8.974
Nurses	18.88 5.074		.47 .11		9.22 7.156	8.82 5.962	11.80 6.92
Community Health Officers(CHOs)	19.67 4.67		.41 .14		10.21 9.58	8.42 7.76	11.63 10.01
Overall scores	18.40 5.94		.42 .15		9.74 8.89	9.38 7.79	11.86 8.64
ANOVA							
F value	9.625		8.94		3.54	2.98	1.21
P value	0.00		0.00		0.01	0.03	.305

The statistically significant difference is seen between the four professional groups for PSS scores , PSQ scores, depression and anxiety scores from DASS 21 scale.

Table 6: Table showing the health care professionals and different components in DASS 21

Categories	Depression	Anxiety	Stress
Normal	139(53.5)	114 (43.8)	126(48.5)
Mild	34(13.1)	23 (8.8)	90(34.6)
Moderate	59(22.7)	68 (26.2)	30(11.5)
Severe	16(6.2)	27 (10.4)	9(3.5)
Extremely severe	12(4.6)	28 (10.8)	5(1.9)
Total	260(100.0)		

95% participants fall in normal to moderate category for stress scores, 90 % of the participants fall in the category from normal to moderate for Depression scores and 80% fall in normal to moderate category for anxiety scores.

Table 7: Distribution of health care professionals by the mean scores of different constructs/components scores

Professional Groups	Constructs/Components				
	Brief Resilient Coping scale	Flourishing Scale	Professional Quality of Life scale		
	BRCS score Mean SD	Flourishing score Mean SD	Compassion Satisfaction(CSS) Mean SD	Burnout(BO) Mean SD	Secondary Traumatic stress (STS) Mean SD
Doctors	15.73 2.148	47.90 6.31	38.10 6.384	22.29 5.05	22.27 6.990
Physiotherapists	14.91 3.400	46.91 6.50	38.36 5.202	24.73 4.55	26.13 5.644
Nurses	15.00 2.623	46.12 6.96	42.14 5.25	22.55 4.89	27.20 6.84
Community Health Officers(CHOs)	13.44 3.228	43.16 7.07	39.88 6.52	24.19 6.02	23.65 6.75
Overall	14.81 3.091	46.25 6.81	39.33 5.87	23.74 5.09	25.15 6.57
ANOVA					
F value	4.93	4.79	6.098	3.926	6.884
P value	0.002	0.003	.001	0.009	0.000

All the measured constructs/components showed statistically significant differences between 4 group of professionals.

Table 8: Distribution of health care professionals by the mean scores of sub domains measured in Work place well being (construct)

Professional Groups	Constructs/Components			
	Work satisfaction(WS) Mean SD	Organizational respect for the employee (ORE) Mean SD	Employer care (EC) Mean SD	Intrusion of work into Private Life (IWPL) Mean SD
Doctors	26.76 8.504	18.98 5.536	17.02 6.572	9.63 5.081
Physiotherapists	26.08 4.799	17.93 4.049	17.63 4.919	14.07 5.162
Nurses	28.37 5.535	19.41 4.119	16.59 4.879	13.06 5.486
Community Health Officers(CHOs)	25.46 6.206	17.94 4.782	18.35 5.289	13.56 6.471
Overall	26.54 6.095	18.42 4.531	17.45 5.329	12.94 5.684
ANOVA				
F value	2.308	1.698	1.057	7.774
P value	.077	.168	.368	.000

The statistically significant difference is seen between the four professional groups for intrusion in private life (IWPL)scores.

Table 9: Table showing the participants in different categories of various constructs/components

Categories	Constructs		Categories	Constructs		
	Work satisfaction	Resilient Coping (BRCS)		Compassion Satisfaction	Burnout	STS
Low	3(1.2)	81(31.2)	Low	3(1.2)	100(38.5)	96(36.9)
Medium	203(78.1)	109(41.9)	Average	158(60.8)	159(61.2)	160(61.5)
High	54(20.8)	70(26.9)	High	99(38.1)	1 (0.4)	4 (1.5)
Total				260(100)		

In work satisfaction, maximum participants fell in medium category of work satisfaction followed by high work satisfaction. Maximum participants were seen as medium resilient copers. In Compassion

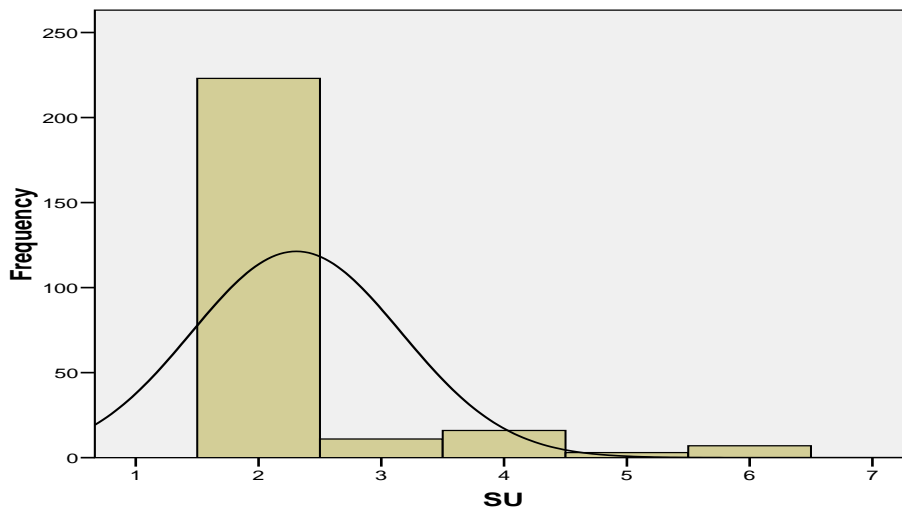
satisfaction, Burnout and secondary traumatic stress, maximum participants were in average category. This is followed by high in compassion satisfaction and low in burnout and STS.

Table 10: Distribution of health care professionals by different forms of adopted coping measures

Central Tendency and Dispersion Measures	Approach Coping					
	Active coping	Use of emotional support	Use of instrumental support	Positive reframing	Planning	Acceptance
Mean	6	5.09	5.25	5.62	5.38	5.57
Median	6	5	5	6	6	6
5 th percentile	3	2.05	3	2	2	3
95 th percentile	8	8	8	8	8	8
	Avoidant Coping					
	Denial	Substance use	Self-distraction	Behavioral disengagement	Venting	Self-blame
Mean	3.61	2.31	5.1	3.77	4.36	3.93
Median	4	2	5	4	4	4
5 th percentile	2	2	3	2	2	2
95 th percentile	6	4	7	6	7	7
	Neutral Coping					
	Humor	Religion				
Mean	3.51	5.35				
Median	3	5.50				
5 th percentile	2	2				
95 th percentile	7	8				

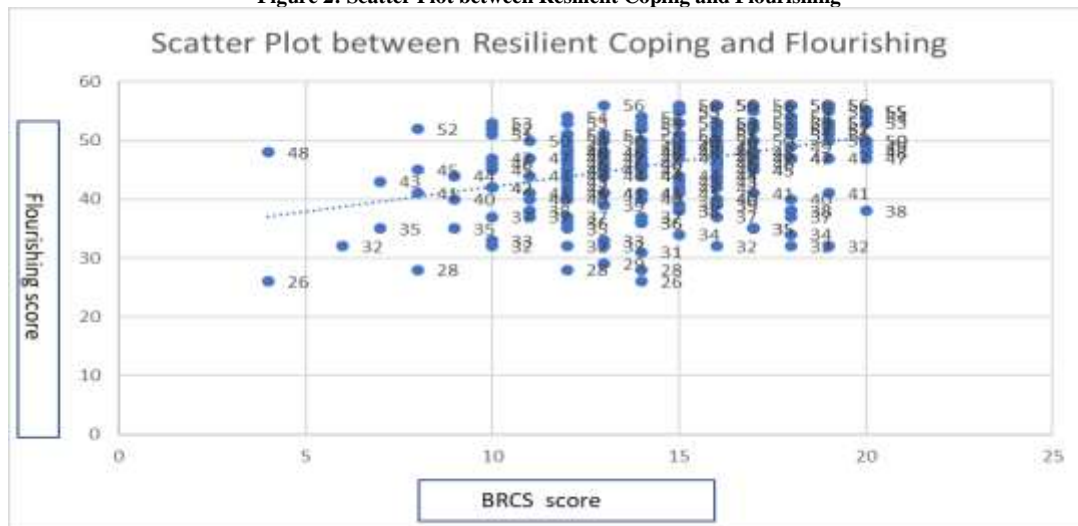
Left skewed deviation is seen for many approach coping mechanisms. More number of participants are seen for the less scores in avoidant coping.

Figure 1: Histogram with Normal Distribution Curve showing the Right skewness for a negative coping mechanism (Substance Use-SU)



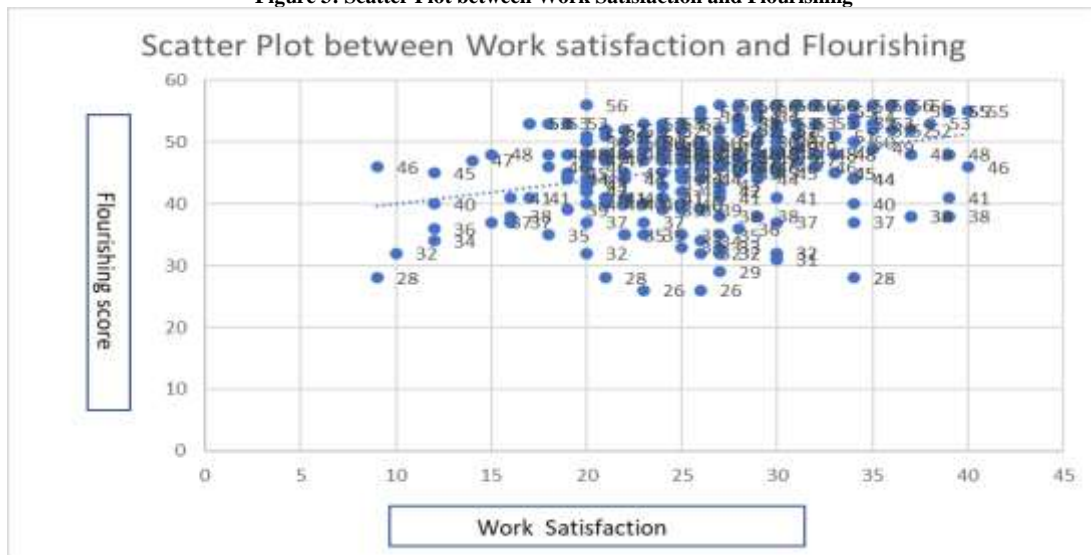
Right skewed plot for a negative coping mechanism (Substance Use) which is good.

Figure 2: Scatter Plot between Resilient Coping and Flourishing



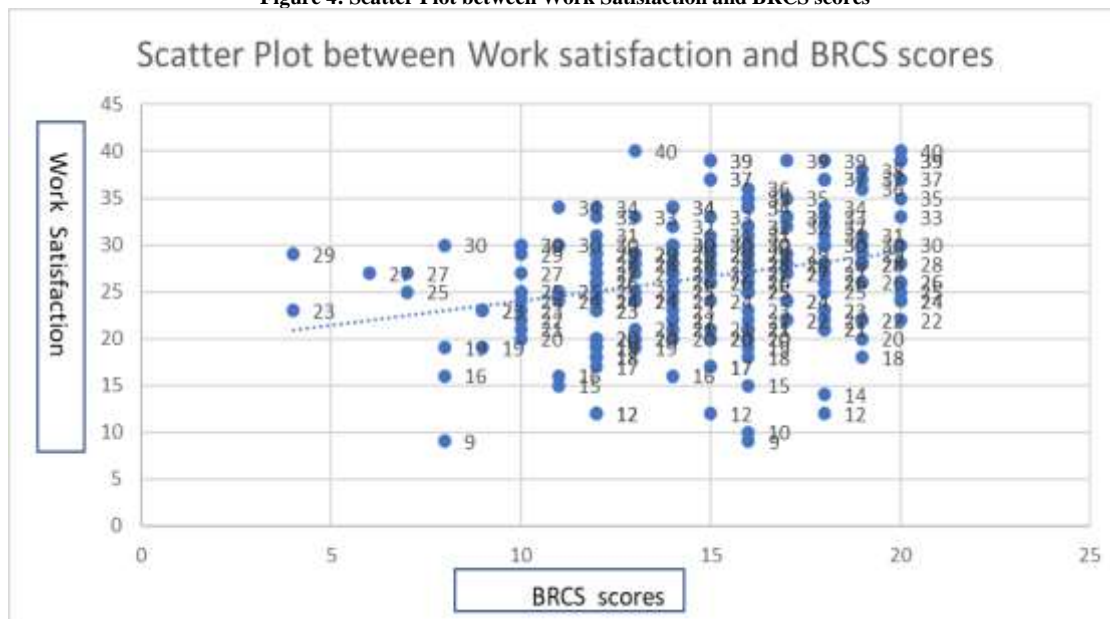
Most of the scores are concentrated in the upper middle and right upper half. . Line of best fit is seen for a positive correlation. More the BRCS scores, more is flourishing and vice versa. (Pearson correlation Coefficient $r=.383$, $p=.000$)

Figure 3: Scatter Plot between Work Satisfaction and Flourishing



Most of the scores are concentrated in the right upper half. Line of best fit is seen for a positive correlation. More the work satisfaction, more is flourishing and vice versa. (Pearson correlation Coefficient $r=.341$, $p=.000$)

Figure 4: Scatter Plot between Work Satisfaction and BRCS scores



Most of the scores are concentrated in the upper middle and right upper half. Line of best fit is seen for a positive correlation. More the BRCS scores, more is work satisfaction and vice versa. (Pearson correlation coefficient $r=.264$, $p=.000$)

Table 11: Central Tendency Measures and dispersion for the questions for “Workplace Policies and Procedures” “Occupational Health and Safety Awareness” and “Participation in occupational health and Safety”

Workplace Policies and Procedures questions	Mean	SD	Median
Everyone receives the necessary workplace health and safety training when starting a job, changing jobs or using new techniques	4.36	.847	5
There is regular communication between employees and management about safety issues	4.03	1.04	4
Systems are in place to identify, prevent and deal with hazards at work	4.26	.80	4
Workplace health and safety is considered to be at least as important as production and quality	4.09	1.05	4
There is an active and effective health and safety committee and /or worker health and safety rep	4.15	.86	4
Incidents and accidents are investigated quickly in order to improve workplace health and safety	4.19	.87	4
Communication and workplace health and safety procedures is done in a way that I can understand	4.33	.78	4
Occupational Health and Safety Awareness	Mean	SD	Median
I am clear about my rights and responsibilities in relation to workplace health and safety	4.51	.62	5
I am clear about my employer’s rights and responsibilities in relation to workplace health and safety	4.41	.68	4
I know how to perform my job in a safe manner	4.58	.50	5
If I became aware of a health or a safety hazard at my workplace, I know who (at my workplace) I would report it to	4.44	.69	5
I have the knowledge to assist in responding to any health and safety concerns at my workplace.	4.42	.62	4
I know what the necessary precautions are that I should take while doing my job	4.53	.51	5
Participation in occupational health and Safety	Mean	SD	Median
I feel free to voice concerns or make suggestions about workplace health and safety at my job	4.12	.93	4
If I notice a workplace hazard, I would point it out to management	4.30	.82	4
I know that I can stop work if I think something is unsafe and management will not give me a hard time	3.93	1.04	4
If my work environment was unsafe, I would not say anything and hope that the situation eventually improves	2.84	1.4	2
I have enough time to complete my work tasks safely	4.01	.95	4

On a 5-point Likert scale from 1(Strongly disagree)-5(Strongly agree), the mean score is above 4 in each point in “Workplace policies and procedures”, “Occupational Health and Safety awareness” and

“Participation in occupational health and Safety”. The 4th point in Participation in occupational health and Safety is near to disagree (mean 2.84 and median 2).

Table 12: Association between measures of “Satisfaction” (ProQOL18) and Happiness (ProQOL 30) in work and “Enough time for self” (PSQ 29) with other constructs.

Spearman Rank Correlation Coefficient	My work makes me feel satisfied (PrQL18) r p	I am happy that I chose to do this work (PrQL30) r p	You have enough time for yourself (PSQ 29)
Work Satisfaction (WS)	.379 .000	.402 .000	.191 .002
Flourishing (FS)	.243 .000	.315 .000	.212 .001
Brief Resilient Coping (BRCS)	.138 .026	.220 .000	.084 .178
Compassion Satisfaction (CSS)	.593 .000	.678 .000	.114 .068
Perceived Stress Questionnaire (PSQ)	-.252 .000	-.232 .000	-.152 .014
Stress (DASS 21)	-.191 .002	-.191 .002	-.140 .024
Burnout (BO)	-.475 .000	-.495 .000	-.158 .011
Secondary Traumatic Stress (STS)	-.165 .008	-.163 .009	-.079 .206

The questions “My work makes me feel satisfied” (PrQL18) and “I am happy that I chose to do this work” (PrQL30) when correlated with work satisfaction, BRCS, FS, and Compassion satisfaction were found to be positively correlated and significant. With the negative measures like PSQ, and burnout these questions were negatively

correlated and significant. The question “You have enough time for yourself” (PSQ29) answered in increasing Likert scale from minimum (1) to maximum (4) is positively correlated with work satisfaction. It is negatively correlated with PSS score and Burnout.

Table 13: Multiple linear Regression analysis for Burnout as Dependent variable with other predictors

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.789	.622	.608	3.190	1.903

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	30.357	2.980		10.188	.000	24.488	36.225
CSS	-.388	.037	-.447	-10.584	.000	-.388	-.037
Age	-.061	.031	-.097	-1.942	.053	-.122	.001
Income	.254	.151	.077	1.684	.093	-.043	.550
Marriage	-.010	.501	.010	.205	.838	-.884	1.090
PSQ score	5.877	1.848	.178	3.179	.002	2.236	9.517
WS	-.012	.040	-.014	-.303	.762	-.090	.066
FS score	-.041	.034	-.055	-1.226	.221	-.108	.025
STS	.304	.035	.393	8.633	.000	.235	.374

The overall regression was statistically significant ($R^2=.622$), $F(8, 251) = 50.98$, $p = .000$. Burnout is significantly associated with compassion satisfaction, Perceived stress (PSS) and secondary traumatic stress. All these account for 62.2% variance in Burnout measure.

DISCUSSION

Age was found to be significantly correlated with work satisfaction, perceived stress and burnout. Stress and burnout measures were negatively correlated with age. This means that with increasing age; the stress and burnout scores tend to reduce. The income was positively correlated with positive measures and negatively correlated with the negative measures. Years of work was not found to be significant with any of the constructs. In a study done in Zambia, the findings were same.¹⁹ Significant differences was seen between gender and work satisfaction, resilient coping and stress. The two groups of married and unmarried was found to be significantly different in work satisfaction, stress and burnout. Scores for positive measures were higher for married and lower for negative measures. The interactions between the home and work interface are important and play a definite role to cause distress at work place. There may be good and bad impact of the events at home and workplace as exchange. Cross over theory is an explanation to such outcomes. Crossover theory focuses on how stress experienced by the individual, influences strain experienced by the individual's spouse or other members.²⁰ Study findings by the authors

for crossover of burnout between spouses in married couples in an organization supported the crossover of burnout from husbands to wives and the impact of burnout.²¹

In a study on sociodemographic characteristics and compassion fatigue, singlehood was found as a risk factor.²² Statistically significant differences in Secondary Traumatic Stress scores were found between the married and the single.¹⁹ There was a significant difference between the flourishing, resilient coping, stress, compassion satisfaction and the two groups of institution as govt and private.

The Post Hoc (LSD) test revealed, that the anxiety scores were significantly different for the Doctors and Physiotherapists group. The depression scores were significantly different for Doctors in comparison to Physiotherapists and CHOs. In PSS and PSQ measures, the doctors score was significantly different from rest three professional groups. The question "You have enough time for yourself" (PSQ29) answered in increasing Likert scale from minimum (1) to maximum (4) is positively correlated with work satisfaction. It is negatively correlated with PSS score and Burnout. In a study conducted by Sathiya N et al, they found the mean PSS score for doctors and nurses as 18.35 and 17.16 respectively.²³

Physical and mental exhaustion which leads to reduced ability to cope with the environment is Burnout. Burnout involves fatigue, frustration, a sense of helplessness, and reduced pleasure in work or other responsibilities.²⁴ Burnout is defined as a

syndrome of prolonged emotional exhaustion, depersonalization (cynicism) and a feeling of professional inefficacy.²⁵ Secondary traumatic stress is about work related, secondary exposure to extremely or traumatically stressful events.²⁶

In Compassion satisfaction, Burnout and Secondary traumatic stress, maximum participants were in average category. As per the Post Hoc test differences (LSD) in BRCS scores and Flourishing scores, the CHOs group were found to be significantly different from rest three professional groups. In compassion satisfaction scores, the nursing cadre was different from rest three professional groups as per the Post Hoc test (LSD). In Burnout, as per the Post Hoc test (LSD), physiotherapists were different from doctors and nursing cadre. Multiple linear regression analysis was conducted to determine the predictors for Burnout. Burnout as a dependent variable is significantly associated with Compassion satisfaction, Perceived stress (PSS) and Secondary traumatic stress. All these account for 62.2% variance in Burnout measure. In a study done on Physiotherapists in Latvia, the researchers found that the Physiotherapists have low Secondary Traumatic Stress score 27.54 and moderate Burnout score 17.68.²⁷ In a study conducted among Chinese nurses in tertiary hospitals, the mean scores for the Compassion satisfaction, Burnout and Secondary traumatic stress were 32.63, 27.36 and 26.88 respectively.²⁸ In a study on Physiotherapists, the authors found the mean scores of Compassion satisfaction as 41.33, Burnout as 21.58 and Secondary traumatic stress as 22.42. The authors found correlations between the constructs of CS, BO, and STS. CS and BO were negatively correlated ($r = -0.535$, $p < .001$). Burnout and STS were positively correlated ($r = 0.530$, $p < .001$).²⁹ In our study, we also have similar finding. The authors also found the predictors of Burnout. The authors found that Compassion satisfaction was the most potent predictor, followed by Secondary traumatic stress and Job

satisfaction. All these 3 variables explained 59.2% of the variance in total.³⁰

The construct Work place wellbeing⁸ comprises of 4 sub constructs. These are Work satisfaction, Organizational respect for the employee, Employer care and Intrusion of work in private life (IWPL). The range of the scores for work satisfaction ranged from 0-40 whereas for organizational respect for the employee, employer care and intrusion of work in private life the scores ranged from 0-28. In this study, overall, the scores for work satisfaction, organizational respect for the employee, employer care and intrusion of work in private life (IWPL) were 26.54, 18.42, 17.45 and 12.94. The Post Hoc test differences (LSD) were significant for work satisfaction and intrusion of work in private life (IWPL). In work satisfaction, maximum participants fell in medium category followed by high work satisfaction. In work satisfaction, the nursing cadre scores was different from professional groups of CHOs and Physiotherapists. In IWPL, the doctor's group were significantly different from rest three professional group. Workplace well-being measures aim to make sure that workers are safe, healthy, satisfied and engaged at work.³¹ Carver CS has identified 14 coping mechanisms. 6 are approach coping, 6 are avoidant coping and 2 are neutral coping.¹⁰ Approach coping measures are positive coping measures. Left skewed deviation is seen for many approach coping mechanisms in this study. Approach coping mechanisms should be adopted by a greater number of people. Left skewed deviation of a positive outcome measure suggests that the scores are on higher side and cut offs like 5th percentile is seen at relatively higher scores. Avoidant coping measures are negative coping measures. More number of participants are seen for the less scores in avoidant coping in this study. Left skewness for approach coping is good and same way the right skewness is good for avoidant coping mechanisms.

In the current study, in BRCS scores and Flourishing scores, the CHOs group were

found to be significantly different from rest three professional group based on Post Hoc test (LSD). Maximum participants were seen as medium resilient copers followed by low resilient. Being resilient is an individual trait. Positive organizational behaviour involves the study of individual positive psychological conditions and human resource strengths that are related to employee well-being or performance improvement, in one way or another.³² Positive organizational behaviour studies also examine the role of states like self-efficacy, optimism, hope, resilience, and other personal resources which may be utilized in coping with organizational demands or in encouraging performance.³³ The questions “My work makes me feel satisfied” (PrQL18) and “I am happy that I chose to do this work” (PrQL30) when correlated with work satisfaction, BRCS, FS, and compassion satisfaction were found to be significantly positively correlated. With the negative measures like PSQ, and burnout these questions were significantly negatively correlated.

As put by Rutter M in his research paper, resilience is an interactive concept and it refers to a relative resistance to environmental risk experiences, overcoming of stress or adversity.³¹ Keyes C.L has defined flourishing according to influential theoretical models and empirical analyses of well-being. Flourishing is a state of positive health that includes high levels of emotional, psychological, and social well-being.³⁴ Positive significant correlation between Work satisfaction and Resilient coping and Flourishing is found in this study. These are positively correlated and causal association can't be established as all three are in dynamic states and governs for each other. These attributes are more like vicious cycle. More the BRCS scores, more is flourishing and vice versa. More the work satisfaction, more is flourishing and vice versa. More the BRCS scores, more is work satisfaction and vice versa.

Knowledge about “Workplace policies and procedures”, “Occupational Health and

Safety awareness” and “Participation in occupational health and Safety” is important. The interaction between the managerial team and the employees about these aspects is important. All these things bring in a sense of belongingness. The mean score measures are above 4 in each point in all the questions for these domains. The point of “If my work environment was unsafe, I would not say anything and hope that the situation eventually improves” has median of 2 i.e disagree. Communication plays an important part in safety at work place. Poor knowledge and poor communication is cited as one of the reasons in Bhopal gas tragedy.³⁵ Workplace Wellbeing relates to multiple aspects of working life. It encompasses the quality and safety of the physical environment feelings of workers/employees about their work, working environment, the climate at work and work organization.³¹ Organizations are increasingly recognizing the need to take the well-being of their workers seriously as it is becoming increasingly clear that many workplace problems arise because of lack of commitment towards the needs of their workers. Communication and a focus on learning and development are essential to make the workplace a more decent and satisfying place.³¹

CONCLUSIONS

Almost all of the health care professionals fell in normal to moderate category for stress scores. 80% fell in normal to moderate category for anxiety scores. In Compassion satisfaction, Burnout and Secondary traumatic stress, maximum participants were in average category. Maximum participants were seen as medium resilient copers. Positive significant correlation between work satisfaction and resilient coping and flourishing is found in this study A primary scientific assessment is required to study socio demographic correlates in Occupational health psychology. Once these are assessed, some intervention can be planned suitable to the individual and organizational needs to

increase the resilient coping and reduce the burnout and thus leading to flourishing.

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