

IMPACT OF DEMOGRAPHIC FACTORS ON HEALTHCARE WORKERS' PROFESSIONAL LIVES- CASE OF SOUTH ASIA

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ABSTRACT

This study explores the test group differences of age, gender income levels marital status in assessment of stress management skills among health care workers in hospitals of Pakistan. The study is a survey design conducted through purposive sampling. Sample of 400 health care workers were drawn from major hospitals. Stress management skills instrument (ISBF) was administered. The instrument has been cross validated in Urdu language of South Asia (Ali &Kazmi, 2023). Age, gender and marital status differences significantly contributed to stress management skills in health care workers using descriptive statistics, t-tests and multivariate analysis of variance tests. Younger health care workers (18-39 years of age) managed stress better than the middle aged health care workers (40-59 years of age); ($p=.006$). The female health care workers managed stress better as compared to their male counterparts ($p=.000$). Unmarried healthcare workers exhibited greater stress managed skills as compared to married health care workers ($p=.000$). Personal income levels do not carry a main effect for healthcare workers' professional lives. The academic research is integral to have in the field of occupational health psychology and to make sure that healthcare workers across groups employ stress management skills for healthy well-being.

Keywords: Age, Gender, Marital status, Stress Management Skills, Health care, Pakistan

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INTRODUCTION

Stress management skills include the methods of handling stress. Excessive stress can lead to major health concerns. It can disrupt a person's psychological, emotional, physiological and spiritual wellbeing. Different skills and strategies may help to curb stress and promote healthy outcomes. There is dearth in literature about effect stress management skills which is culture specific as compared to exhaustive list of studies present in the domain of stress or stressors.

There is a need to explore may have better stress management skills. Health care workers are faced with many occupational risks. There are some ways that are included in stress management skills including animal assisted intervention programs for medical staff, Tai Chi programs for nurses, workplace interventions for residential and home care staff, resilience and prevention interventions for doctors and physicians and preventive staff support (Fadel, et al., 2023).

1. LITERATURE REVIEW

1.1. Stress management skills in health care workers

Stress management skills are integral to combat stress that after impact momentary episodic mental pressures may lead to permanent physiological conditions indicating morbidity. Cortisol and stress hormones disturbs a person's normal vitals. The flight and fight response may aid temporarily but for repetitive stress, it is important to follow set of skills that are validated to be used (Singer at al., 2021) For this purpose, the scale has been cross validated and adapted to South Asia's common language Urdu (Ali & Kazmi, 2023).

Health care workers are more prone to psychological and physiological stress that reflect sleep disturbances, memory loss, poor reactivity, patient fault and even suicide (Hersch, et al., 2016). If not managed, leads to compromised immune system, and negatively affects limbic and neurophysiological systems. Hence, a vicious stress cycle may wreck health care workers' health overall.

1.2. Gender and stress management skills

Gender differences are important to explore in health care settings that can pave way for interventions to settle. A study reflected that females reported higher coping or stress managing techniques (Edwards & Deborah, 2000). Another study supports the females manage stress in different ways and in greater number, compared to their male counterparts (Pocnet, et al., 2015).

1.3. Age and stress management skills

Age is considered to be an important factor in health care studies as far as stress and stress management skills are reported. Younger workers tended to report greater stress in a study that examined perceived differences in stress levels between day and night nurses in mental health care (Edwards & Burnard, 2003). Stress management techniques are also helpful in reducing depression significantly of young people in early twenties, such as using mindful based stress reduction (Chi, et al., 2018). In another study, younger age group between 18-29 report higher stress levels and will find skills to manage stress as they are more likely to involve brain and body to work comparted with older workers (Boma & West, 2019).

1.4. Marital status and stress management skills

More perceived stress is present in married persons in Asian context which may indicate that married people are less likely to have diverse stress management skill set (Rai, et al., 2021). In addition, working women in organized sector face greater stress but are unable to manage stress personally due to responsibilities pertaining to married life (Srinvasa, 2021).

1.5. Income levels and stress management skills

The research aims to fill the gap if personal income levels help healthcare workers to manage their professional lives better. Independently earned money is not the sole factor of helping workers in managing their work (Tang & Thomas, 2007). Income levels impact work assignments if the work function match the underlying interests of workers (Kara et al., 2018). There is a difference of survival and decent income. If workers strive for minimum wage, it will not impact their life meaningfully (Yao et al., 2017).

2. METHODS

Quantitative method using Stress management skills questionnaire (ISBF); which is a 14 item survey (Wirtz, 2012) was used to collect and analyze data. The scale is a 5-point response scale, 1= *I cannot do this at all*, 2= *I cannot do this well*, 3= *I may do this*, 4= *I can do this well*, 5= *I can do this extremely well*.

The Stress Management Skills Survey (ISBF) consists of 14 items with a Cronbach alpha= .83:

- i. Cognitive strategies and problem solving has 5 items; Cronbach alpha=.84;
- ii. Identification and use of social resources has 2 items; Cronbach alpha= .82;
- iii. Relaxation abilities has 2 items; Cronbach alpha=.67;
- iv. Adequate anger expression and assertiveness= 3 items; Cronbach alpha=.70 and
- v. Perception of bodily tension has 2 items; Cronbach alpha=.89.

The sum of each component was computed as total scores. Descriptive and inferential statistics, including frequency, percentages, means, and standard deviations were carried and t-test analysis was used. Independent sample t-test was used to carry out the hypotheses.

Data collection and distribution of paper questionnaires along with the demographic form was carried out in two major hospitals (AviCenna Medical and Khair un Nisa) to a sample of 400 respondents. Data analysis was conducted with the aim of exploring living style and gender differences in stress management skills using IBM SPSS v.25.

Table 1. Demographic characteristics

Demographics(N=400)		Frequency	Percentage%
Gender	Male	170	42.3
	Female	230	57.8
Age	Young adults (18-39)	279	68.3
	Middle-aged adults (40-59)	112	28.0
	Older adults (60+)	9	2.8
Living style	Alone	238	59.5
	With husband/wife	66	16.5
	With children	41	10.4
	Other: with parents	54	14.0
Marital status	Married	180	44.8
	Unmarried	164	33.2
	Divorced	21	6.8
	Widowed	16	6.0
	Separated	20	8.0
Income	10k-25k	98	24.5
	25k-40k	151	37.8
	40k-55k	98	24.5
	55k-70k	21	5.3
	70k-85k	23	5.8
	Greater than 85k	9	2.3

Note: All nurses were females

Table 2. Psychometric Properties

Scales	K	M	α	SD	Skewness	Kurtosis
Relaxation	2	2.9950	.681	1.34331	-.147	-.990
Cognitive problem solving	5	15.2875	.810	5.42849	-.222	-.991
Perception of bodily tension	2	6.1880	.881	2.28547	-.126	-.906
Social resources	2	5.9750	.892	2.46365	-.002	-1.150
Anger expression	3	6.0075	.882	2.30341	-.116	-.956
Stress management skills(total)	14	36.4862	.804	12.23325	-.283	-.891

K=number of items, M=mean, SD= standard deviation, α =Cronbach alpha

3. RESULTS

The research questions focused on health care workers' stress management skills in regards to contribution of their gender, living style and age. This section reports the results and analysis for each.

3.1. Gender and stress management skills

The first research question investigated the Pakistani health care workers' gender on stress management skills. According to results (Table 3), lower levels of stress management skills ($M=32.45$, $SD=46.25$) were observed in male workers.

Table 3. Gender and Stress management skills

		95% CI								
		N	M	SD	t	df	Sig.	UL	LL	
Stress management skills	Male	121	32.45	12.978						
	Female	127	46.25	10.997	-9.048	246	.000	-10.794	-16.801	

These results suggest that female workers had greater stress management skills ($p=.000$) being statistically significant; hence first alternate hypothesis is accepted. The female health care workers have better stress management skills than the male colleagues.

3.2. Age and stress management skills

The second research question explored the contribution of Pakistani health care workers' age on stress management skills. According to results (Table 4), stress management skills are managed more by young adults between the ages of 18-39 years ($M=40.77$, $S=14.47$), ($p=0.006$). Hence, the second alternate hypothesis is accepted. It can be concluded that Pakistani health care workers' age does significantly contribute to stress management skills.

Table 4. Age and stress management skills

		95% CI								
		N	M	SD	t	df	Sig.	UL	LL	
Stress management skills	Young adults (18-39)	155	40.77	14.47						
	Middle-aged adults (40-59)	77	35.34	12.798	2.797	230	.006	1.607	9.266	

3.3. Marital status and stress management skills

The third research question explored the contribution of marital status of Pakistani health care workers on stress management skills. According to results (Table 5) stress management skills are managed more by unmarried health care worker ($M=44.80$ $SD=34.50$), ($p=.000$). Hence, the third alternate hypothesis is accepted. It can be concluded that Pakistani health care workers' marital status does significantly contribute to stress management skills. T-tests were carried out between divorced ($M=46.94$, $SD=12.720$) and widowed ($M =34.33$, $SD=14.951$) health care workers; from which divorced workers had more stress management skills compared to widowed workers and results were statistically significant ($p=.015$).

Table 5. Marital status and stress management skills

		95% CI								
		N	M	SD	t	df	Sig.	UL	LL	
Stress management skills	Married	111	34.51	12.847						
	Unmarried	89	44.80	12.812	-5.52	192	.000	-6.609	-13.954	

Hence, it is investigated that gender, age and marital status does contribute significantly in stress management skills of Pakistani health care workers. The issue of why do some groups better manage their stress through cognitive strategies and problem solving, identification and use of social resources, relaxation abilities, adequate anger expression and assertiveness, and perception of bodily tension can give an insight of how such skills can be improved or improvised.

However, it is important to note that any pre-screening for mental and physical diseases must be practiced so as to see if any effects impact health care workers' ability to manage stress.

Table 6. Personal income levels

Tests of Between-Subjects Effects						
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
income	Relaxation	12.401	5	2.480	1.379	.231
	Cognitive problem solving	234.338	5	46.868	1.604	.158
	Perception of bodily tension	13.215	5	2.643	.503	.774
	Social resources	44.908	5	8.982	1.495	.190
	Anger expression	22.735	5	4.547	.855	.512

The multivariate analysis of variance suggests that personal income levels of healthcare workers do not affect their stress management skills on the domains of relaxation abilities, cognitive problem solving, perception of bodily tension, social resources and anger expression management. Hence, no post-hoc evaluation was carried out. The culture of south Asian is to collect and collate family income rather than reliance on personal income of single individual employed.

DISCUSSION

The female health care workers have better stress management skills than the male colleagues. Female coping behavior is assessed better as compared to male counterparts (Joseph et al., 2021). Female are more likely to take medication for stress relief due to work commitments as compared to males (Adasi et al., 2020).

Health care workers' age does significantly contribute to stress management skills. Younger workers are more prone to life accidents and work trauma yet can cope with stresses of life better than middle or older age group (Fusar-Poli et al., 2021). During periods of economic crisis, unemployment and job skipping younger counterparts show better stress management skills (Bartelink et al., 2020). Moreover, younger people have stronger pro-work ethic as compared to older people due to greater inclination towards intrinsic outcomes (Lazarus, 2020).

Health care workers' marital status does significantly contribute to stress management skills. T-tests were carried out between divorced health care workers; from which divorced workers had more stress management skills compared to widowed workers and results were statistically significant. Greater job pressure is felt by married couples as compared to single or divorced populations (Perry-Jenkins & Gerstel, 2020). Married couples with children face detrimental outcomes of job and exhibit poorer stress management skills (Pietromonaco et al., 2022).

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However, it is important to note that any pre-screening for mental and physical diseases must be practiced so as to see if any effects impact health care workers' ability to manage stress.

Limitations

In the country of research context, male nursing is not the norm. The study can benefit from adding the male nursing sample. Moreover, Asian cross-country comparison can provide in-depth analysis to the present study.

Ethical Approval

The study complies with all the ethical requirements described in the Helsinki Declaration and Resolution 8430, which establishes the norms for health research, according to which this study would be classified as without risk (Ministry of Health, 1993, art.11). Responding to these parameters, the researchers took informed consent from the health staff. These documents were signed by all the participants who agreed to be part of the study. Additionally, a protocol was established with risk minimization actions. This IPA study has the endorsement of the Psychology Department of Hazara University, Mansehra, Pakistan. The study for research collection was granted by AviCenna Medical Hospital and KhairunNisa Lahore, Pakistan.

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