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**LIFE SATISFACTION AND COPING STRATEGIES AMONG MALE AND
FEMALE SPINAL CORD INJURY PATIENTS**

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ABSTRACT

This study aims to inspect the relationship among life satisfaction and different types of coping strategies includes emotions focused coping, problem focused coping and dysfunctional coping among male and female spinal cord injury patients. A total of 100 spinal cord injury patients with gender of ratio of 50 male and 50 female were selected by using purposive sampling technique from Paraplegic Center Peshawar. The data were together by using tools includes Satisfaction with Life Scale and Brief Cope Inventory. The results revealed that male score on life satisfaction was significantly high in male ($M = 26.02$, $SD = 4.78$) than female ($M = 21.76$, $SD = 5.51$), $t(98) = 4.13$, $p < .001$. On the other hand there was no significant mean difference among male female and in terms of coping strategies includes Emotional focused coping, problem solving and dysfunctional coping. The current study findings reflects a dire need for the management of these psychological problems by using different kinds of evidence based psychotherapies such as Narrative exposure therapy, cognitive behavioral therapy and family therapy.

**Keywords: Life satisfaction, emotions focused coping, problem focused coping and
dysfunctional coping**

INTRODUCTION

Spinal cord is important part of body and injury to it due to fall down , shooting, road accidents etc. may lead to incompletely or complete paralysis, disturb the sensual organs, comprises sense of hearing, taste, touch etc. along with unintentional response to nerves system [1].

In this injury due to direct effect on the spine results in cracks or displaces the disc of vertebral Colum which damages the nerves .At times these injuries are cure able but at times it may cause damage to human body which may leads to disability in the limbs and even some times may result in permanent paralysis which make them completely dependent on others [2].

These approaches of coping are type valued struggles which comprises similarly mental and behavior factors which help in to overwhelm adverse full tension condition which the human face in everyday life. The practices of copings were dynamic role in treatment or rehab for individual who were suffered from neural issues [3].

The emotion focused strategy which decrease and overwhelm the strength of the undesirable and upsetting emotions by which stressful environment is evoked than to resolve that bad stressful condition bye motion focused coping [4].

Problem focused coping help in vanishing the event or stressful

environment which clicks the source of stress. The problem focused coping to overwhelm the stress to find out that information or assistance to cope with that condition, and himself away from this stressful condition [5].

Dysfunctional focused coping is defined which consist of refusal, ejecting, stuff use, behavioral disengagement, self-disruption and self-guilt feeling [6].

The study showed that unforgiveness is as a stress reaction which is reduce by forgiveness because that is positive emotion. In this traumatic condition forgiveness is used as emotion focused coping to decrease the stress full situation.. In this study the forgiveness that play role of emotion coping which has positive effect on health by communal support, affiliation and religion which are the domain of emotion focused coping [7].

For this study two groups were selected one was control group and other was experimental group. The experimental group availed the problem focused coping exercise for 12 days while other did not it. The findings of study showed significant difference between two groups. This study show that problem focused coping has role in family perception about children and also improve the mental health's of mothers [8].

The study indicated that personality and clinical signs have more prominent in earlier grown persons with using dysfunctional coping more than elder grown persons. The results of study show dysfunction coping more in earlier grown person than elder grown persons with negative relationship with life gratification. In young adult has shown positive association of coping strategy with gratification with life [9].

LITERATURE REVIEW

The [10], studied the life satisfaction with relationship of age, socioeconomic status, location, education physical walking dysfunction, gender and clinical features, job etc.

The study indicated that patients are more satisfies with medically care which involve facilities like concentrated period and also good supervision of chief executive, physiotherapist and nurses etc. The study also suggested that SCI is very costly for human we must provide such information which help in prevention of SCI. [11] studied the link among stratagems which is useful for coping with entity which produce stressed condition with mental well-being in individuals who were suffered with Spinal cord injury.

The study of [12] tested first year of Spinal cord injury patients which is perceive impact of injury on insight, self-esteem and patterns of coping which is

adapted .The results indicated that maximum groups of spine injury patients high marks on forms of adaptive coping and with combined phases of self-esteem. In addition subject's substantial ratio used maladaptive coping patterns. The [10, 11] studied that emotion stress associated with coping of combat spirit and accepting. The period of five years injury show more of to the realization of accepting than fresh injury one.

According to study that emotion coping is used most of patients with pediatric – onset spine injury and there a percentage of forms of coping which make individual more satisfied [13].

The study indicated that the locus of control, uniformity of senses, to make valued, impression of hope, aim in his life which show optimistic relationship with to improve the upright life value of spine injury Individuals [14].

Ordinary support and support in delinquent situations were directly associated with life gratification over time. This shows that situation in problem directly related with life satisfaction if proper support not provide to spinal cord injury patient which directly affect life satisfaction of patient [15].

In this study two assumptions were studied (1) spinal cord-injured individuals having low life satisfaction than the normal peoples , and (2) meanwhile these

individuals could not lead "normal" lives, they may be better off not living. The findings of study showed that correlation existed among life satisfaction and physical functioning in Spinal cord injury patients. The association was existed among LSES scores and Barthel scores, but Barthel scores and the LSES subscale scores for goals, mood and finance had low relationships. The result of study indicated that nurses boost life gratification in the Spinal cord injury patients by concentrating on alteration in the 3 subscales of goals, mood and finance [16].

According to [17] positive coping stratagems is important for mental adjustment for man than women respectively. The problem focused stratagems are positively projected psychological adjustment for women than man correspondingly. The active avoidance coping approaches for both sexes are negatively significant expected mental adjustment. In this study sex play important role among coping approaches and mental adjustment of Spinal cord injury subjects. The result showed that problem focus coping styles more effected for man and on other motivated positive and active avoidance coping stratagems.

The study consists of coping effort in adaptation of psychosocial development in Spinal cord injury. It's about the coping in general, and coping with chorionic

illness and disability more specifically. The finding of study is that proper psycho social support provided it strong the ego strength and also locus of control. The best adaptation is positively associated to adaptation of seeking social support and problem focusing and negative associated with alcohol/drug abuse and wish fulfilling fantasy. This was concluded that rehabilitation related clinical and research effects [18].

According to study results which indicated that significance role of appraisals and coping strategies which help in settlement of spine injury Patients. It was discuss that longitudinal research is required that the full procedure of settlement to spine injury and the noteworthy role of appraisals and coping approaches. Further added that such tools will be develop which in help to sort out maladaptive issues of Spinal cord injury patients and also help out in identification of specific coping stratagems for SCI Individual [19].

According to [20] studied coping stratagems, job satisfaction and level of stress among staff. The study result shows moderate stress and serious stress was identify and there no major difference in both gender .The finding of study shows that academic staff extensive use of coping strategies and negative correlation

of job satisfaction and stress and inverse to level of stress.

This study indicated that the problem solving strategy is useful for non-victimized child neither's nor for victimized children. The social support defended the victimized girls from societal issues with low peer for victimized boys. Study showed that coping help in adjustment [21].

The study investigates infirmity associated stress and coping mechanism. The both coping are the emotion and problem focused which one is more effective to addressed spinal cord injury patients. In both emotion and problem focused strategy in which the emotion coping strategy is effective to decreasing emotion disturbance from stress and also help in problem solving [22].

METHODOLOGY

Objectives

1. To explore the difference between male and female patients with spinal cord injury in terms of life satisfaction.
2. To determined Emotional, Problem and Dysfunctional coping strategies among spinal cord injury patients.

Hypothesis

1. Male spinal cord injury patients are more satisfied than female spinal cord injury patients

2. Emotional coping strategies are more prominent than problem focusing and dysfunctional coping strategies

Research Design

This study was based on cross sectional survey method. The following two scales includes Coping Scale which examined different types of coping strategies used by SCI patients and The Satisfaction with Life Scale which assessed level of satisfaction among SCI patients were used.

Participants

A total of 100 spinal card injury patients (male = 50, female = 50) were selected for this study from Paraplegic Centre Peshawar. Participants were selected through non-probability purposive sampling technique.

Instruments

The following scales were administered.

The Satisfaction with Life Scale.

The SWLS is a short 5-item instrument developed by [22] and translated by Muhammad Mustaffa, Amana Ghaniand Shah Rukh Department of psychology GC University, Lahore in 2014 to measure global cognitive judgments of satisfaction with one's life. For respondent's time about one minute when the scale is used. In scale each of the 5 items using a 7-point scale that ranges from 7 strongly agree to 1 strongly disagrees on which the subject

indicates how much they agree or disagree with each of the items. Participants take only a few minutes to complete. The SWLS is suited use with a wide range of age groups and applications and shows valid and reliable measure of life satisfaction, which makes possible the savings of interview time and resources compared to many measures of life satisfaction. Internal consistency of the SWLS is excellent (Cronbach's $\alpha=0.83-0.92$) (See Appendix A).

Brief Cope: The Brief COPE is a self-report questionnaire used to assess a number of different coping behaviors and thoughts a person may have in response to a specific situation which is translated by Akhtar in national institution of psychology Quaid Azam University Islamabad in 2005. The responses on the scale range from 1 (I have not been doing this at all) to 4 (I have been doing this a lot). Its Cronbach's Alpha reliabilities range from ($\alpha = 0.57$ to 0.90).

Statistical Analysis

For all analysis Statistical Package for Social Sciences (SPSS) version 22 Software was used. For socio demographic characteristics of the population, descriptive statistics such as mean, standard deviation, minimum, maximum, frequency besides percentage was calculated. To assess the association between life satisfaction and different types of coping

strategies includes emotion focused, problem focused and dysfunctional strategies of coping, Pearson correlation coefficient was used. To explore the difference between male and female in terms of life satisfaction and different types of coping strategies an independent sample t-test was. To examine the influence types of coping strategies on life satisfaction, multiple linear regression analysis were used. P value which is less than .05 was considered significant.

Ethical considerations

The approval for study was attained from ethical review board of the university. To collect the data from spinal cord injury patients, the permission was taken from the head of the organization. The patients were first briefed about the study purpose. Inform consent form the patients before hand over the questioner was taken and the confidently and privacy were ensured.

Procedure

After receiving ethical approval from the relevant research ethics committee, at an initial meeting, the head of paraplegic center was approached to take permission for the data collection. After attaining permission from the head, informed consent was obtained from patients. The patients were first briefed about the study purpose. The scales of the study were administered to collect the information. The information was fed into

Statistical Package for Social Sciences (SPSS). After that the analyses were carried out by using SPSS version 22 Software. The results were interpreted and wrote in the results chapter.

RESULTS

This study goal to investigate the association among life satisfaction and different types of coping strategies. To assess the association between life satisfaction and different types of coping strategies, Pearson correlation coefficient test was used. To explore the difference male and female in terms of life satisfaction and different coping strategies, an independent sample t-test was used.

Before performing parametric tests includes an independent sample t-test, Pearson correlation coefficient, the basic assumptions such as normality, linearity, homogeneity, multicollinearity and an independence of data were ensured.

Table 1 shows the sociodemographic status of spinal cord injury patients. It indicates that a total of 100 spinal cord injury patients had mean age 33.05 ± 11.21 and had equal ratio of gender, most of them 71% were married,

and 78% had monthly income below 15000 PKR. More than half 58 % were illiterate.

Table 2 shows the psychometric characteristics of the study scales. The Cronbach Alpha values show satisfactory reliability of the scales while skewness and kurtosis values showed the normality of the data.

Table 3 shows the relationship between life satisfaction and different types of coping strategies. The results showed that life satisfaction was significantly and positively associated with emotional focused coping ($r = .32, p < .01$), and significantly and negatively association.

An independent sample t-test shows the mean difference among male and female in terms of life satisfaction and coping stratagems. The results (**Table 4**) showed that male score on life satisfaction was significantly high in male ($M = 26.02, SD = 4.78$) than female ($M = 21.76, SD = 5.51$), $t(98) = 4.13, p < .001$. On the other hand there was no significant mean difference among male female and in terms of coping strategies includes Emotional focused coping, problem solving and dysfunctional coping.

Table 1: Socio demographic Characteristics of Participants (N=100)

Variables	Categories	N	%	M	SD	Min	Max
Age		100	100.00	33.05	11.21	14	70
Gender							
	Male	50	50.0				
	Female	50	50.0				
Marital Status							
	Single	29	29.00				
	Married	71	71.00				
SES							
	15000 & Below	78	78.00				
	Above 15000	22	22.00				
Education							
	Illiterates	58	58.00				
	Primary	9	9.00				
	Middle	8	8.00				
	Matric	12	12.00				
	Intermediate	4	4.00				
	Bachler	9	9.00				

Note. SES = Socioeconomic Status

Table 2: Psychometric Properties of Study Major Scales

Measures	No. of items	A	Range		M	SD	Skew.	Kurt.
			Potential	Actual				
SWLS	05	.61	7-49	08-35	23.89	5.56	-0.54	0.09
BCS	28	.59	0-84	33-66	50.81	6.51	-0.27	-0.20

Note. SWLS = Satisfaction With Life Scale; BCS = Brief Cope Scale; Scale; Skew = Skewness; Kurt = Kurtosis.

Table 3: Pearson correlation among variables

Variables	1	2	3	4
1. SWLS	1	.32**	-.27**	-.23*
2. Emotional focused coping		1	.15	-.04
3. Problem Focusing			1	.33**
4. Dysfunctional Coping				1

Note. SWLS = Satisfaction With Life Scale

Table 4: Mean differences between Male and Female Spinal Cord Injury patients in terms of major study variables (N=100)

Variable	Male (n = 50)		Female (n = 50)		t (98)	p	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
1. SWLS	26.02	4.78	21.76	5.51	4.13	.001	2.21	6.30	.83
2. EFC	21.90	3.05	22.62	2.81	1.23	.22	-1.88	0.44	.24
3. PFC	11.14	2.96	12.16	2.68	1.28	.21	-1.84	0.40	.36
4. DC	16.00	3.52	17.50	4.49	1.86	.06	-3.09	0.10	.37

Note. SWLS = Satisfaction With Life Scale; EFC = Emotion Focused Coping; PFC = Problem Focused Coping; DC = Dysfunctional Coping

DISCUSSION

The aim of study measures the relationship among life satisfaction and different types of coping strategies among SCI individuals. The hundred spinal injury subjects had mean age 33.05 ± 11.21 and had equal ratio of gender, most of them 71% were married, 78% had monthly income below 15000 PKR and more than half 58 % were illiterate.

In addition, this study designated that male spinal cord injury subject have high level of life satisfaction than female spinal cord injury patients. The findings are in consistency with pervious study [23-28]. It is perceived that the determination of life is essential for spinal cord injury which was observed in female patient is less than male. The male dominant society could be the probable reason [23]. The dissimilarity among male and female satisfaction may be due to alterations, somatic relief, Interaction of family and friends, graciousness, Relationship and contact of male than female which show greater life satisfaction of male than female patients [24].

The study showed that women with SCI reported lower level of psychological health-related quality of life compare to men. Old age women with SCI lesser life quality of physical health linked to young women. The result shows that male with SCI has psychological more stable than

female which help in enhancing of quality of life. The age also influences the quality of life which is indicated by this research old age women have lesser corporeal health quality of life from young women's [26].

The study result indicated that strong positive association among somatic actions and life quality among adult Spinal cord injury. Its shows that physical engagements help spinal cord injury individual in enhance the QoL and which decreased dissatisfaction in individuals. It is essential for enhance in satisfaction of in spinal injury person life. In Our study satisfaction of life in male spinal injury patients higher than female spinal cord injury patients because the male spinal cord injury patient engage in some physical activity like start job of reception or vocational skill like tailoring. The main reason starts physical activities by male due to male dependence society and stigma that male for work in home so he doing some work or job (Stevens, Caputo, Fuller, & Morgan, 2008).

CONCLUSION

The study indicated a positive relationship between life satisfactions and emotional focused coping while negative relationship with problem focused coping and dysfunctional coping among spinal cord injury patients. The current study findings reflects a dire need for its management by recruiting clinical

psychologists along with physiotherapists and social workers, to use the different kinds of evidence based psychotherapies such as Narrative exposure therapy, cognitive behavioral therapy, family therapy etc.

The parent and family of spinal cord injury patients should also play positive role in rehabilitation in hospitals and at homes like giving social support during problem discussions and societal interaction, doctor visits, psychologists and physiotherapist sessions, the toilet training, hygienic training by nutritionists and physiotherapists, learning of vocational skill like tailoring, in jobs like receptionist and motivational speakers etc.

Friends interaction also important which help in to engage in groups of his age mate and group activities like social gathering , hard board games , trips and also in sports etc.

Besides these our society and Religion has a significant role in accepting the reality which is very essentials for spinal cord injury patients, because the majority of spinal cord injury patient are not fully recovered so the religious teacher which has positive role to help the acceptance of spinal cord injury with the help of religious knowledge.

REFERENCES

[1] Janssen, T. W., & Hopman, M. T. (2005). Spinal cord injury. *Exercise*

testing and exercise prescription for special cases: theoretical basis and clinical applications, 203-219.

[2] Crewe, N. M., & Krause, J. S. (2009). Spinal cord injury. *Medical, psychosocial and vocational aspects of disability*. Athens: Elliott and Fitzpatrick, 289-304.

[3] Meng K, Zdrahal-Urbanek J, Frank S. (2006). Patients' expectations, motivation and mult dimensional subjective and objective socio-medical success in medical rehabilitation measures. *Int J Rehabil Res*; 2965–69.69.

[4] Galor, S. (2012). Emotion-focused coping strategies. drsharongalor. Retrieved 27 December 2017, from <https://drsharongalor.wordpress.com/2012/03/31/emotion-focused-coping-strategies/>

[5] Carroll, L. (2013). Problem-focused coping. In *Encyclopedia of Behavioral Medicine* (pp. 1540-1541). Springer New York.

[6] Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56, 267-283.

[7] Worthington, E. L., & Scherer, M. (2004). Forgiveness is an emotion-focused coping strategy that can

- reduce health risks and promote health resilience: Theory, review, and hypotheses. *Psychology & Health*, 19(3), 385-405.
- [8] Pourmohamadreza-Tajrishi, M., Azadfallah, P., Garakani, S. H., & Bakhshi, E. (2015). The effect of problem-focused coping strategy training on psychological symptoms of mothers of children with down syndrome. *Iranian journal of public health*, 44(2), 254.
- [9] Segal, D. L., Hook, J. N., & Coolidge, F. L. (2001). Personality dysfunction, coping styles, and clinical symptoms in younger and older adults. *Journal of Clinical Geropsychology*, 7(3).
- [10] Dijkers, M. P. (1999). Correlates of life satisfaction among persons with spinal cord injury. *Archives of physical medicine and rehabilitation*, 80(8), 867-876.
- [11] Kakakhel, M. K., Latif, U., & Khan, T. (2012). Traumatic spinal cord injuries, their causes and levels of injury, and Patient Satisfaction among patients admitted in Paraplegic Center Peshawar.
- [12] Hancock, K., Craig, A., Tennant, C., & Chang, E. (1993). The influence of spinal cord injury on coping styles and self-perceptions: a controlled study. *Australian and New Zealand Journal of Psychiatry*, 27(3), 450-456.
- [13] Anderson, C. J., Vogel, L. C., Chlan, K. M., & Betz, R. R. (2008). Coping with spinal injury strategies used by adults who sustained their injuries as children or adolescents. *J Spinal Cord Med*, 31(3), 290-6.
- [14] Van Leeuwen, C. M. C., Kraaijeveld, S., Lindeman, E., & Post, M. W. M. (2012). Associations between psychological factors and quality of life ratings in persons with spinal cord injury: a systematic review. *Spinal cord*, 50(3), 174.
- [15] Van Leeuwen, C., Post, M. W., van Asbeck, F. W., van der Woude, L. H., de Groot, S., & Lindeman, E. (2010). Social support and life satisfaction in spinal cord injury during and up to one year after inpatient rehabilitation. *Journal of Rehabilitation Medicine*, 42(3), 265-271.
- [16] Dunnum, L. (1990). Life satisfaction and spinal cord injury: the patient perspective. *Journal of Neuroscience Nursing*, 22(1), 43-47.

- [17] Noor, R., Gul, S., Khan, E. A., Shahzad, N., & Aqeel, M. (2016). The Impact of Coping Strategies of Psychological Adjustment across Male and Female Spinal Cord Injured Patients. *J. Appl. Environ. Biol. Sci*, 6(2S), 137-143.
- [18] Livneh, H. (2000). Psychosocial adaptation to spinal cord injury: The role of coping strategies. *Journal of Applied Rehabilitation Counseling*, 31(2), 3.
- [19] Chevalier, Z., Kennedy, P., & Sherlock, O. (2009). Spinal cord injury, coping and psychological adjustment: a literature review. *Spinal Cord*, 47 (11), 778-782.
- [20] Abouserie, R. (1996). Stress, coping strategies and job satisfaction in university academic staff. *Educational psychology*, 16(1), 49-56.
- [21] Kochenderfer-Ladd, B., & Skinner, K. (2002). Children's coping strategies: Moderators of the effects of peer victimization?. *Developmental psychology*, 38(2), 267.
- [22] DeGraff, A. H., & Schaffer, J. (2008). Emotion-focused coping: A primary defense against stress for people living with spinal cord injury. *Journal of Rehabilitation*, 74(1), 19.
- [23] Thompson S C, Sobolew-Shubin A, Graham M A. et al (1989). Psychosocial adjustment following a stroke. *SocSci Med*; 28239–247.247.
- [24] Wright, S. M., Craig, T., Campbell, S., Schaefer, J., & Humble, C. (2006). Patient satisfaction of female and male users of Veterans Health Administration services. *Journal of General Internal Medicine*, 21(S3).
- [25] Post, M. W., Van Dijk, A. J., Van Asbeck, F. W., & Schrijvers, A. J. (1998). Life satisfaction of persons with spinal cord injury compared to a population group. *Scandinavian Journal of Rehabilitation Medicine*, 30(1), 23-30.
- [26] Tate, D., & Forchheimer, M. (2001). Health-related quality of life and life satisfaction for women with spinal cord injury. *Topics in Spinal Cord Injury Rehabilitation*, 7(1), 1-15.le.
- [27] McVeigh, S. A., Hitzig, S. L., & Craven, B. C. (2009). Influence of sport participation on community integration and quality of life: a

comparison between sport participants and non-sport participants with spinal cord injury. *The Journal of Spinal Cord Medicine*, 32(2), 115- 124.

- [28] Stevens, S. L., Caputo, J. L., Fuller, D. K., & Morgan, D. W. (2008). Physical activity and quality of life in adults with spinal cord injury. *The journal of spinal cord medicine*, 31(4), 373-378.