International Journal of Science and Research (IJSR)
ISSN (Online): 2319-7064
Index Copernicus Value (2015): 78.96 | Impact Factor (2015): 6.391

Assessment of Psychological Symptoms in Patients Attending A Rheumatology Clinic

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Abstract: ***This study aims to assess psychological symptoms among patients suffering from rheumatological conditions, also to determine the relationship between socio-demographic factors, social support, perceived pain and quality of life. 32 patients attending Rheumatology clinic were assessed on Dallas Pain Questionnaire, Ferran's and Power's Quality of Life Index and Depression Anxiety Stress Scale. Pain and dysfunction caused by rheumatological conditions were seen to be important determinants of quality of life, associated with psychological disturbances, occurring across ages, family types and genders related to severity of illness and support system.***

Keywords: Rheumatological conditions, psychological disturbances

1. Introduction

"It is as important to know what kind of man has the disease as it is to know what kind of disease has the man"- Hippocrates.

The management of chronic disease is a major challenge for global healthcare in the 21st century [1]. The World health Organization estimates that by the year 2020, depressive disorders will be second only to ischaemic heart diseases in the worldwide burden of disease [1]. An association between pain and depressive symptoms has long been observed, going as far back as the middle of the last century [2]. There is now ample evidence that psychological and social factors are important causes of disability in patients suffering from musculoskeletal pain problems [2]. Rheumatic conditions are often associated with pain, deformity, restriction of function and usually have a chronic course [12]. Despite these distressing factors, along with deteriorated quality of life and psycho-social status, which form rational fears and major physical challenges that these patients suffer over many years, the majority do not develop depressive disorder [1]. However the significant proportions that do develop significant symptoms of depression carry a second heavy burden[1]. Depression is linked with increased pain levels [3]. The causal association between pain and low mood, most likely, works in both directions [4, 5]. Co-morbid depression has been shown to independently shown to increase work disability, the loss of recreational and social activities, has been shown to significantly increase the risk of depressive symptoms [6]. The co-existence of both conditions adds to the burden of the disease on the healthcare system as well, with increased physician and general practitioner visits and more requests for analgesia. Depression can also result in poor adherence to treatment [1].

The unpredictable nature of rheumatic diseases characterized by flare-ups and changing levels of pain and disability, can take a toll on even those patients who have coped with their conditions well in the past. It is also common for patients to get pre-occupied with ongoing health issues causing them to worry excessively that may lead to features of anxiety.

This research exercise attempts to estimate the burden of such psychiatric symptoms in patients suffering from rheumatic conditions in a small population to emphasize on the need of anticipatory and routine assessment for the same and thus, management of psychiatric symptoms in patients with rheumatic diseases, thus providing such patients with holistic care.

2. Literature Review

As established in Depression in Rheumatoid Arthritis: A Systematic Review of the Literature with Meta-analysis,2002, low threshold of pain tolerance, poor coping mechanisms, negative attitude and inadequate external support system are early predictors of a poor psychological outcome, which need to be identified and addressed.

Severity of pain and dysfunction have been seen to be associated with psychological disturbances owing to one's psychological make-up along with pre-occupation with health, ideas of physical and financial drain and inability to fulfill one's daily responsibilities, as stated in The Psychology of Rheumatic Diseases, 2000

Also, the presence of anxiety and depression is seen to be strongly related to lack of social support and experience of social stress, as corroborated in Essentials of Physical Management and Rehabilitation in Arthritis, Seminars in Arthritis and Rheumatism, 1974.

In established dysfunction and deformity, regular screening for psychological disturbances needs to be added to routine follow-up guidelines, as examined by Newman S, Mulligan K. The psychology of Rheumatic Diseases.

3. Method

This was a cross-sectional, analytical study conducted among patients attending the Rheumatology sub-specialty clinic at Bharati Vidyapeeth Deemed University Medical College and Research Centre; a private tertiary care hospital in Pune, India. A total of 32 patients, all above the age of 18 years, with a primary rheumatological diagnosis, like Rheumatoid Arthritis, Sero-negative arthritis, Systemic Lupus Erythmatosis, Osteoarthritis, Spondyloarthritis etc., of more than 6 months duration were included. Patients with pre-existing psychiatric illnesses on treatment were excluded. Patients with co-existing chronic medical illnesses were considered separately. A written informed consent was taken from all participants.

After obtaining socio-demographic details of the participants like age, gender, education, occupation, socio-economic status, marital status, family type, etc., an estimate of pain and distress experienced by patients due to their condition was made by using the Dallas Pain questionnaire, which is a short, self administered scale giving quantitative assessment of intensity of perceived pain and disability. Based on this assessment of intensity of pain and dysfunction the patients were divided into classes 1 (minor disability), 2 (intermediate disability), 3 (disability for some physical activities) and 4 (physical disability and emotional distress).

Quality of life was evaluated using Ferran's and Power's Quality of Life Index which consists of health, family, social and economic functioning, psychological and spiritual domains. Satisfaction scores obtained on each of these items were weighed against their corresponding Importance scores and based on the final scores, each participant's quality of life was evaluated and classified into high, intermediate and poor.

The DASS 42 is a set of three self-report scales designed to measure the negative emotional states of depression, anxiety and stress. Based on a dimensional rather than a categorical conception of a psychological disorder, the development of DASS was based on the assumption that the depression, the anxiety and the stress experienced by the normal and the clinically disturbed, are essentially differences in degree. The DASS is available in English, Hindi and Marathi, translation thereof has been done by a team at KEM Hospital, Pune, India. Psychological disturbances in participants were assessed based on the scores obtained on DASS 42.

4. Results

Out of a total of 32 participants, 15 were males and 17 females; 27 above the age of 30 years and 5 below 30 years. 59.3% participants showed depressive symptoms and 65.6% showed signs of stress, while 62.5% showed features of anxiety. These psychological disturbances were seen across both age groups and genders. However, more of female participants were seen to have anxiety (p=0.049) and stress (p=0.028). 20% and 33.3% of males fell into classes 3 and 4 respectively based on Dallas Pain Questionnaire scores while corresponding percentages for female population were 5.8% and 52.9%. 53.3% males and 41.2% females reported poor quality of life based on Ferran's and Power's Quality of Life Index- Arthritis version. There was a strong association seen between high scores on Dallas Pain Questionnaire and lower Quality of Life index (p=0.028). Dallas Pain Questionnaire scores and Quality of life scores were each seen to be independent of age group and gender.

Participants with higher scores on Dallas Pain questionnaire were also seen to have significant psychological disturbances like depression (p=0.025) and anxiety (p=0.026). No significant association was seen with stress (p=0.178). Furthermore, participants who reported poor quality of life showed significant depression (p=0.003) and anxiety (p=0.038) though not such a strong association with stress (p=0.335). These psychological disturbances were seen to occur independent of socio-economic status, occupational status and family type.

A total of 43.7% of participants reported an inadequate familial and social support in terms of financial contribution and help in fulfilling daily responsibilities. Satisfaction or dissatisfaction with familial and social support was seen to be independent of age group, gender or type of family. Significant number of people with inadequate support reported poor quality of life (p=0.039) Significant associations were noted between inadequate familial and social support and psychological disturbances like anxiety (p=0.004) and stress (p=0.010). A somewhat weaker correlation of the same was seen with depression (p=0.082). 61.1% participants who reported an inadequate familial and social support had higher scores on Dallas Pain questionnaire (p=0.069) while 64.2% of such participants fell under poor quality of life (p=0.070) which is in turn associated with psychological disturbances.

Association of depression, anxiety, stress with age of patients. These psychological disturbances were seen to occur independent of age.

	Age group	*N*	*Mean*	*SD*	*P-value*
depression	≤ 30	5	8.2	9.011	0.598
	> 30	27	10.56	5.169	
anxiety	≤ 30	5	6.4	4.827	0.492
	> 30	27	8.07	3.327	
stress	≤ 30	5	14.2	5.805	0.512
	> 30	27	16.15	5.013	
QOL scores	≤ 30	5	21.6	6.877	0.604
	> 30	27	19.81	4.86	

Association of prevalence of stress, depression and anxiety with gender. Significant association of occurrence of anxiety and stress was seen with female gender

	Gender	*N*	*Mean*	*SD*	*P-value*
depression	Male	15	8.53	3.889	0.121
	Female	17	11.65	6.864	
anxiety	Male	15	6.53	2.134	0.049
	Female	17	8.94	4.205	
stress	Male	15	13.8	4.074	0.028
	Female	17	17.65	5.326	
QOL scores	Male	15	20.27	4.773	0.86
	Female	17	19.94	5.573	

Association of the severity of pain with stress

		DPQ class				Total	p-value
		class I	class II		class IV		
Stress	Mild	0	0.025	2	5	11	0.178
	Moderate	0	3	1	5	9	
	Normal	5	2	1	3	11	
	Severe	0	0	0	1	1	
Total		5	9	4	14	32	

Association of the severity of pain with depression

		DPQ class				Total	p-value
		Class I	Class II	Class III	Class IV		
Depression	Mild	0		1	7	11	0.025
	Moderate	0	1	1	4	6	
	Normal	5	5	2	1	13	
	Severe	0	0	0	2	2	
Total		5	9	4	14	32	

Association of the severity of pain with anxiety

		DPQ class				Total	p-value
		class I	class II	class III	class IV		
Anxiety	Mild	0	4	3	7	14	0.026
	Moderate	0	1	0	5	6	
	Normal	5	4	1	2	12	
Total		5	9	4	14	32	

Association of quality of life with anxiety

		Anxiety			Total	p-value
		Mild	Moderate	Normal		
QOL	Poor	9	3	3	15	0.038
	Intermediate	5	3	4	12	
	High	0	0	5	5	
Total		14	6	12	32	

Association of quality of life with stress

		Stress				Total	p-value
		normal	moderate	mild	severe		
QOL	poor	3	5	6	1	15	0.355
	intermediate	4	4	4	0	12	
	high	4	0	1	0	5	
Total		11	9	11	1	32	

Association of pain with quality of life

		DPQ class				Total	p-value
		class I	class II	class III	class IV		
QOL	Poor	0	3	3	9	15	0.028
	Intermediate	2	4	1	5	12	
	High	3	2	0	0	5	
Total		5	9	4	14	32	

Association of quality of life with depression

		Depression				Total	p-value
		mild	moderate	normal	severe		
QOL	poor	4	6	3	2	15	0.003
	intermediate	7	0	5	0	12	
	high	0	0	5	0	5	
Total		11	6	13	2	32	

Association of perceived social support with gender

		Social Support		Total	p-value
		Adequate	Inadequate		
Gender	Male	7	8	15	0.476
	Female	11	6	17	
Total		18	14	32	

Association of perceived social support with type of family

		Social Support		Total	p-value
		Adequate	Inadequate		
Family Type	Nuclear	9	10	19	0.289
	Joint	9	4	13	
Total		18	14	32	

Association of perceived support with gender

		Social Support		Total	p-value
		Adequate	Inadequate		
Depression	Mild	5	6	11	0.001
	Moderate	0	6	6	
	Normal	11	2	13	
	Severe	2	0	2	
Total		18	14	32	

Association of perceived social support with anxiety

		Social Support		Total	p-value
		Adequate	Inadequate		
Anxiety	Mild	3	11	14	< 0.001
	Moderate	3	3	6	
	Normal	12	0	12	
Total		18	14	32	

Association of perceived social support with stress

		Social Support		Total	p-value
		Adequate	Inadequate		
Stress	mild	5	6	11	0.008
	moderate	2	7	9	
	normal	10	1	11	
	severe	1	0	1	
Total		18	14	32	

Association of perceived social support with pain

		Social Support		Total	p-value
		adequate	inadequate		
DPQ class	class I	5	0	5	0.069
	class II	6	3	9	
	class III	1	3	4	
	class IV	6	8	14	
Total		18	14	32	

Association of occurrence of psychological disturbances (depression, anxiety, stress) with perceived social support

	Social Support	N	Mean	SD	P-value
Depression	Adequate	18	8.67	6.269	0.082
	Inadequate	14	12.14	4.639	
Anxiety	Adequate	18	6.33	3.646	0.004
	Inadequate	14	9.71	2.431	
Stress	Adequate	18	13.94	5.418	0.010
	Inadequate	14	18.29	3.474	
QOL scores	Adequate	18	21.72	4.921	0.039
	Inadequate	14	18.00	4.772	

5. Discussion

In this era of newer, more effective agents for treatment of the physical aspect of rheumatological diseases, when rates of clinical remission are increasing, deformity, disability and pain will be decreased[1]. It may be expected that the rates of associated psychological disturbances will go down[1]. If, however we fail to identify and deal appropriately with the early predictors of a poor psychological outcome, such as

low threshold of pain tolerance, poor coping mechanisms, negative attitude and inadequate external support system, psychological disturbances and maladjustments will continue affecting patients and through them, the people around them. The presence of anxiety and depression is seen to be strongly related to lack of social support and experience of social stress, significantly worse in people who feel unable to carry out their daily responsibilities by themselves due to the illness and lack understanding and supportive family conditions. Dissatisfaction with one's family structure and support system; in financial, emotional, spiritual and such domains has been seen to be adding to existing levels of distress caused by the disease process per se.

6. Future Scope

In everyday practice, there should be an emphasis on providing good psychological support to those diagnosed with a rheumatological disease. In addition to information and education about the disease, reassurance about modern therapy and also reinforcing a positive attitude are much needed. In established dysfunction and deformity, regular screening for psychological disturbances needs to be added to routine follow-up guidelines, early signs of distress, depression, anxiety and others should be recognized, provisionally assessed and addressed according to one's clinical judgment, or seeking qualified psychiatric assistance is warranted.

References

[1] Depression in Rheumatoid Arthritis- Underscoring the Problem. Editorial. Rheumatology 2006; 45:1325-1327. Doi:10.1093/rheumatology/ke1231
[2] Waheed A, Hameed K, Khan AM, Syed JA, Mirza AI. The Burden of Anxiety and Depression among Patients with Chronic Rheumatologic Disorders at a Tertiary Care Hospital Clinic in Karachi, Pakistan. J Pak Med Assoc, Vol.56, No.5, May 2006
[3] Dickens C, McGowan L, Clark-Carter D, Creed F. Depression in Rheumatoid Arthritis: A Systematic Review of the Literature with Meta-analysis. Psychosom Med 2002;64;52-60
[4] Newman S, Mulligan K. The psychology of Rheumatic Diseases. Baillieres Best Pract Res Clin Rhumatol 2000; 14; 773-86.
[5] Nagyova I, Stewart RE, Macejova Z, van Djik JP, van den Heuvel WJ, The Impact of Pain on Psychological Well-being in Rheumatoid Arthritis: the mediating effects of Self-Esteem and Adjustment to disease. Patient Educ Couns 2005; 58:55-62.
[6] Katz PP, Yelin EH. Activity Loss and the Onset of Depressive Symptoms: Do Some Activities Matter More than Others? Arthritis Rheum 2001;44:1194-202
[7] Duc Tran Thach, Tran Tuan, Fisher Jane. Validation of the depression anxiety stress scales (DASS) 21 as a screening instrument for depression and anxiety in a rural community-based cohort of northern Vietnamese women. Tran et al. BMC Psychiatry 2013, 13:24. http://www.biomedcentral.com/1471-244X/13/24
[8] Nieuwenhuijsen K, de Boer A G E M, Verbeek J H A M, Blonk R W B, van Dijk F J H. The Depression Anxiety Stress Scales (DASS): detecting anxiety disorder and depression in employees absent from work because of mental health problems. Occup Environ Med 2003;60(Suppl I):i77–i82
[9] Kimura Miako; Silva JV. Ferrans and Powers Quality of Life Index. Rev Esc Enferm USP 2009; 43(Spe):1096-102 www.ee.usp.br/reeusp/
[10] Lawlis G Frank; Cuenas Ramon; Selby D; McCoy C. The Development of the Dallas Pain Questionnaire: An Assessment of the Impact of Spinal Pain on Behavior. Lippincott Williams and Wilkins journals. Spine. May 1989, vol 14, issue 5. ISSN:0362-2436
[11] Creed F, Psychological Disorders in Rheumatoid Arthritis: A Growing Consensus? Annals of Rheumatic Diseases 1990;49.808-812
[12] Swezey L. Robert, Essentials of Physical Management and Rehabilitation in Arthritis, Seminars in Arthritis and Rheumatism, vol 3, issue 4, summer 1974, 349-368