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# Role of Self-Efficacy in Social Support perception and Coping with Arthritis

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## ABSTRACT

*Arthritis brings with it greater functional disability with uncertainty of tomorrow. Suffering from this physically restricting chronic illness leads to immense distress and lowers the quality of patients' living. The present study was an attempt to investigate the impact of self efficacy level of arthritis patients on their application of coping strategies they pursue and the nature of social support perceived by them. The sample comprised of 60 clinically diagnosed arthritis patients (mean age = 49.23years). The data was collected using Arthritis Self- Efficacy Scale, Social Support Survey Instrument and Vanderbilt Pain Management Inventory. The findings indicate significant difference in perception of social support and coping strategies used by high and low self efficacious groups. The results of stepwise multiple regression analysis showed that out of four different dimensions of Social Support taken, Positive Social Interaction emerged as a significant predictor of Active Coping (explaining 24.3% of variance) whereas Emotional Support negatively predicted the use of Passive Coping strategy (explaining 18.5% of variance). The findings reveal a determining role of Self-Efficacy of the patient in the choice of coping strategies implemented and the nature of social support perceived.*

**KEYWORDS:** *Arthritis, Self- Efficacy, Social Support, Coping*

## INTRODUCTION

Musculoskeletal disorders (MSD) are the leading cause of disability of the global population. There exists varied forms of Musculoskeletal conditions such as Osteoarthritis, Osteoporosis, Tendonitis, Tension Neck Syndrome, Rheumatoid Arthritis, Tennis Elbow etc. These conditions can arise due to sudden exertion (such as lifting a heavy object) or due to excessive exertion like repetitive strain, awkward postures or continuous exposure to force. The injuries and pain due to these conditions restrict the movements of the person and also affect their different parts of the body like joints, legs, knees, upper and lower back, neck, shoulders, arms, etc. Predominantly it affects elder people but the children and adolescents are no exceptions. Musculoskeletal conditions, although impacts both the genders but women are seen to be victimized more due to it than men (Guo, Chang, Yeh, Chen & Guo,2004).

As social beings with varied roles and responsibilities, every individual is engaged in a set of life activities and are also expected to have an active participation in the social affairs but the adverse effects of this disorder restricts the extent of social involvement and threatens the activities socially as well as psychologically. People not only experience pain but also

undergo various psychological conditions such as distress, depression and fatigue. Not only physical aftermath, the pain experienced often lead to decrement in the quality of living (Woo et. al; 2004, Rabenda et. el; 2007), causing excessive distress and also economic plunder (Lapsley et. al). People of old age sometimes may even demand nurse care for they are unable to manage their daily activities such as toilet habits, taking a bath or changing their dress (Baird, 2000).

Haroon, Aggarwal, Lawrence, Agarwal and Misra (2007) while exploring the quality of life of the individuals with this ailment found that they scored lesser on physical as well as psychological aspect of living. Thereby decrement in their work attendance and limitations in their outside as well as inside the house activities serve as its detrimental outcomes (Strand & Khanna, 2010).

Higher the pain assessment done by the individual, poorer the mental health and lowered social participation has been reported (Lapsley, March, Tribe, Cross, Courtenay & Brooks ( 2001, 02). The role of psychosocial factors cannot be denied in the existence of autoimmune processes underlying in arthritis (Zautra, Yocum, Villanueva, Smith, Davis, Attrep & Irwin 2004). Moreover, the complexity of the situation depends upon the perception and beliefs of the afflicted person.

Self efficacy is one such belief which describes a person's faith in his/her ability to perform a certain task. As in case of arthritis, in dealing with the detrimental pain experiences, the individual needs to follow self-care or self-managing activities. The decreased capability of performing even day to day activities concurrent with excessive load of muscular wear and tear alongwith twitching of bones influences negatively the health managing pursuits of the individual. In all these, the will-power of the person plays a determining part. There exists a considerable role of self efficacy in determining the ways people use in order to deal with their fatigue(Taal, Rasker, Seydel & Wiegman; 1993) and it also acts a mediating variable in any treatment given to the patients(Rejeski, Martin Jr, Ettinger & Morgan; 1998). Functional self efficacy has a profound impact on the functionality of the people with weaker abilities (Seeman et. al,1999).

Brady, Kruger, Helmick, Callahan and Boutaugh (2003) established the role of self management activities which boosts the self efficacy of the person in lessening the burden of arthritis. Further support to this postulate was given by Lorig and Holman (2003) who assessed the impact of various self management tasks and skills in the management of arthritis. Keefe, Lefebvre, Maixner, Salley Jr and Caldwell (1997) found that the perception of the pain experienced by the arthritis sufferers was determined by the strength of their self efficacy. The boost in self efficacy alleviates the threshold of the pain. The interventions done to the self efficacy of the individual influences not only the pain and the disability but also affects the adherence of the person towards the treatment taken ( Marks, 2014).

Social Support is the perception of having a supportive network around. It helps developing a positive self image and makes to believe that someone is there in the facets of crisis and need. A positive social support buffers the adverse feelings and emotions. The role of social support as another important psychosocial element in describing the interpersonal relationships and therefore its impact on almost every phase of living cannot be denied (Sarason, Sarason & Pierce, 1990). Social support helps arthritis patients in improving not only their social functioning but also their psychological functioning(Goodenow, Reisine &

Grady, 1990). The strength of the social network contributes in mastering the unraveling conditions of this chronic illness by ameliorating all the aspects of quality living (Krol, Sanderman & Suurmeijer, 1993). The presence of a partner, friends and close associates enables an efficient psychological functioning and mitigates the effect of depressive symptomology in the pursuits of challenging events of such chronic illness (Fitzpatrick et. al, 1991; Pennix et. al, 1997). Besides, it assists the individual in their daily tackling of deteriorating conditions. This double-barreled ammunition backfires if on the other hand the person receives negative or punishing responses from these closed ones (Griffin, Friend, Kaell, & Bennett, 2001; Riemsma, Taal, Wiegman, Rasker, Bruyn, & Van Paassen, 2000).

Often the stressful events demand any specific response and regulation to mitigate their effects. These responses are the ways which are used to cope with the situation. People employ different coping strategies such as adaptive or maladaptive based on their choice. Moreover, this selection of strategies is governed by various factors. The pattern of coping technique implemented by any individual varies according to the amount and kind of social support perceived by him. Adaptive coping strategies are favored by positive social network whereas a problematic social support leads to worsening of the illness (Holtzman, Newth & Delongis, 2004). The way a person deals with his chronic illness is more of culture specific that is the strategies used are governed by the cultural norms of the society they are associated to (Abraído-Lanza & Revenson, 1996). Spirituality is seen as another significant variable associated with the ability to cope. People with intrusive positive thought implement spirituality as their way of dealing with any situation(Rowe & Allen, 2004). Not only dealing with the distress due to the chronic illness is important but also to adjust with the new situation prove to be another relevant event demanding to cope with (Compas Jaser, Dunn & Rodriguez, 2012). And the role of spouse in dealing with these new unraveling situations remain unavoidable. A dyadic approach towards coping enhances a better management of pain, stress and other stigmas when the spouse is collaborative and supportive. This too depends a lot on the gender and the culture (Berg & Upchurch, 2007).

Much has been researched about the coping strategies implemented by the arthritis patients depending on the amount of social support perceived by them and also regarding the impact of self efficacy of these patients on their physical and psychological well being. But the determining role of patients' self efficacy on their perception and expectation of social support has not been researched much. Hence, the present endeavor tried to investigate the role of self efficacy in determining the kind of social support perceived by the arthritis patients.

**Objectives of the Study:** The role of non - medical factors especially psychosocial aspects cannot be denied in influencing the adjustment an arthritis patient does due to his chronic ailment. Therefore, the present study was done with two objectives. First is to determine the kind of perceived and expected social support by arthritis patients of high and low self efficacy level. Secondly, to investigate the relationship between self efficacy, social support and coping strategy implemented by arthritis patients.

## METHOD

### Participants

The present piece of work sampled clinically diagnosed arthritis patients. A total of 60 subjects participated in the study. The age range of the sample who provided consent to participate in the study was 35 to 65 years. The mean age of the sample was 49.23 years.

### Measuring Tools

**Arthritis Self- Efficacy Scale:** Developed by Lorig, Chastain , Ung , Shoor and Holman, The scale contains 8 items related to the patients' self efficacy regarding their pain experience and function ability. It intends to measure patient's confidence in doing activities for managing their illness. It is made with Likert type scale ranging from very uncertain (1) to very certain (10). Its validity and reliability have been revealed to be acceptable with internal consistency of 0.92 (Lorig, Sobel, Ritter Laurent & Hobbs, 2001).

**Social Support Survey Instrument(SSSI):** The scale has 18 items which encompasses emotional/ informational, affection, positive interaction and tangible social support measurement items and the responses for each item accompanied by a 5-point scale ranging from None of the time =1 to All of the time =5. It may also be appropriate for use with other populations. Its reliability is confirmed at > .91 level.

**Vanderbilt Pain Management Inventory (VPMI) :** Developed by Brown and Nicassio (1987) VPMI distinguishes between Active and Passive Strategies having 18 items. These items led to the following dimensions in relation to specific strategies: a) Catastrophizing, which refers to statements reflecting that the patient does not feel able to continue striving to cope with the situation, and tends to see the pain and his/her situation as something "terrible"; b) Social Support Seeking, referring to patients' tendency to turn to other people to help them control the pain; c) Behavioral Coping, referring to attempts to influence the pain through behaviors and cognitions; and d) Suppression, referring to the elimination of negative thoughts and emotions with regard to pain. For the assessment of the coping strategies Likert type rating scale was used ranging from Almost never (1) to Almost always (4).

### Procedure

The investigator visited the hospital settings to consult and meet clinically diagnosed arthritis patients. After taking their consent, responses were taken from them on each measuring tool. The completely filled questionnaires where then duly assessed and scored for further analysis which was done using SPSS 20.00.

## RESULTS

Through the median split, the participants are divided into high and low self efficacy group. Table 1 represents that patients belonging to high and low self efficacious groups differ significantly on their perception of receiving social support ($F(df\ 1,59) = 4.205$, $p < 0.05$) where patients with high self efficacy perceive better social support ($M = 62.33$, $S.D. = 16.19$) in comparison to their lower self efficacious counterparts ($M = 53.03$, $S.D. = 18.84$). On further observing various dimensions of Social Support it was found that high self efficacious arthritis patients can perceive much Emotional support ($M = 26.27$, $S.D. = 7.54$) from his social group whereas the ones with less self efficacy could comprehend lesser of it

(M = 22.07, S.D. = 8.78) and the difference between their perception was also found significant (F(df 1,59) = 4.335, p < 0.05). On the dimension of Affectionate support too high self efficacious arthritis patients differ significantly from their low self efficacious patient group (F(df 1,59) = 4.049, p< 0.05).

**Table 1: Mean, S.D. and F-ratio of Social Support in High and Low Self-efficacy group**

| Dimensions of social support | Self Efficacy groups | | | | F- ratio |
|---|---|---|---|---|---|
| | High(N=30) | | Low(N=30) | | |
| | Mean | S.D. | Mean | S.D. | |
| **Emotional Support** | 26.27 | 7.54 | 22.07 | 8.78 | 4.335* |
| **Tangible Support** | 15.30 | 4.22 | 13.87 | 5.08 | 1.414 |
| **Affectionate Support** | 10.90 | 3.63 | 8.90 | 4.05 | 4.049* |
| **Positive Social Interaction** | 9.67 | 3.05 | 8.20 | 4.05 | 2.504 |
| **Social Support** | 62.33 | 16.19 | 53.03 | 18.84 | 4.205* |

*p<0.05, **p<0.01

Patients of high and low self efficacy differ significantly on the kind of coping strategy they adopt to deal with the stressful situation. The use of active coping strategy vary significantly with different levels of self efficacy (F(df 1,59) = 21.327, p<0.001) where high self efficacious patients are inclined towards active coping (M = 21.87, S.D. = 4.64) in comparison to their low self efficacious counterparts (M = 15.47, S.D. = 6.00). Similarly, passive coping also differ significantly among patients of high and low levels of self efficacy( F(df 1,59) = 25.704, p< 0.001). The lower self efficacious patients adopted passive strategy (M = 27.03, S.D. = 6.02) in contrast to the ones with high self efficacy(M = 19.60, S.D. = 5.31) (Table 2).

**Table 2: Mean, S.D. and F-ratio of Coping in High and Low Self-efficacy group**

| Dimensions of Coping | Self Efficacy | | | | F - ratio |
|---|---|---|---|---|---|
| | High(N=30) | | Low(N=30) | | |
| | Mean | S.D. | Mean | S.D. | |
| Active Coping | 21.87 | 4.64 | 15.47 | 6.00 | 21.327** |
| Passive Coping | 19.60 | 5.31 | 27.03 | 6.02 | 25.704** |

*p<0.05, **p<0.01

**Table 3:Coefficient of Correlation of Self Efficacy with Social Support and Coping**

| | Social Support | | | | | Coping Strategies | |
|---|---|---|---|---|---|---|---|
| | Emotional Support | Tangible Support | Affectionate Support | Positive Social Interaction | Total | Active | Passive |
| Self Efficacy | 0.356** | 0.213 | 0.345** | 0.351** | 0.368** | 0.616** | -0.660** |

*p<0.05, **p<0.01

Table 3 shows the correlational coefficient of self efficacy with social support and coping technique used. It is evident from the table that the Social Support perception is positively correlated with the self efficacy of the arthritis patients (r = 0.368, p<0.01). To be more precise, as the self efficacy of the patients increases, the tendency of perceiving Emotional(r = 0.356, p<0.01), Affectionate(r =0.345, p<0.01) and Positive Social Interaction Support(r = 0.351, p<0.01) increases. But no such significant relation could be seen with the perception of Tangible support. On the same note, a positive correlation was found between self efficacy and active coping(r = 0.616, p<0.01) whereas negative correlation coefficient was found between self efficacy and passive coping(r = -0.660, p<0.01) which signals an inverse relation between self efficacy and use of passive strategies.

Further to predict the extent of contribution of social support perceived in determining the coping strategies used by the arthritis patients, stepwise multiple regression analysis was done. The tables below describe the role of social support in inferring the type of coping strategy implemented by the arthritis patients.

**Table 4: Active Coping as predicted by Social Support**
Criterion Variable = Active Coping

| Predictor | R | $R^2$ | $R^2$ Change | B | t | F-ratio |
|---|---|---|---|---|---|---|
| **Positive Social Interaction** | 0.493 | 0.243 | 0.243 | 0.493 | 4.32** | 18.665** |

p< 0.01 ** p< 0.05 *

**Table 5: Passive Coping as predicted by Social Support**
Criterion Variable = Passive Coping

p< 0.01 ** p< 0.05 *

| Predictor | R | $R^2$ | $R^2$ Change | β | T | F-ratio |
|---|---|---|---|---|---|---|
| **Emotional Support** | 0.43 | 0.185 | 0.185 | -0.430 | -3.623** | 13.124** |

It was found that Active Coping strategy was positively and significantly predicted by only one dimension of Social Support i.e. Positive Social Interaction. This particular dimension has significantly explained 24.3% of the variance of Active coping strategy(Table 4).

Moreover, Table 5 represents the findings of stepwise multiple regression analysis where Passive Coping is significantly predicted by Emotional Support which emerged as the only contributing dimension of Social Support. Emotional Support significantly predicts a total of 18.5% of variance in the criterion variable i.e. passive coping. The negative beta value suggests that the Emotional Support possesses a negative contribution to the use of passive coping. This indicates that the lesser the patient perceives the Emotional Support the more he/she indulges in the use of passive coping strategies.

The result of the present study reveals that arthritis patients with different self efficacy level differ in their perception of Social Support. This difference in the levels of self efficacy and perception of social support also determines the type of coping strategies used by them.

## DISCUSSION

The diagnosis of a chronic illness brings with it long period of significant distress, diminishing psychological well being and issues in life adjustment. And when it is arthritis which comes with uncertain physical disabilities it often leads the individual with ambiguity of sudden functional limitations, pain and fatigue. Prone to all these problematic situations, one needs to cope up with them and every one being unique adopt different measures for it. The present study was aimed at finding the type of coping strategy used and the extent of social support perceived by such arthritis patients.

Patients with high self efficacy level were more likely to perceive better Emotional social support in comparison to the lower self efficacious counterparts. Bandura described that the self efficacy reflects an individual's understanding of one's emotional and practical skills and accurate perception of self and acceptance of others he/she can offer in the group setting. Besides, lower self efficacy is also associated with depression i.e. people with lower self efficacy turn away from the society thereby, doesn't perceive the emotional, informational, affectionate or personal support from others. Better the self efficacy more socially assertive the person will be. Therefore high self efficacious patients are likely to involve more in social scenarios with better perception of emotions of others. It was even found that self efficacy of arthritis patients is correlated with Affectionate social support and Positive Social Interaction but not Tangible Support. This is because high self efficacious patients possess a tendency to master their own lives and this in turn attenuates their functional decline and hence, the dependency on others to provide a tangible support diminishes. The finding is supported by Leon et.al (1996) who determined the role of self efficacy of elderly persons impacting their functional disability negatively.

Patients with high self efficacy level were observed to be indulged in adopting active coping techniques in order to deal with both physical as well as psychological distressing situations such as uncertain functional disabilities, excessive pain and limited social participation. The perspective of an individual in assessing any event plays a defining role in dealing with it. People with high confidence and trust on their abilities to deal with the delimiting occurrences equip themselves to undergo the desired behaviors skillfully and facilitate better coping with the situation. This finding is consistent with the research outcomes of Taal et. al, 1993; de Leon et. al, 1996: Keefe et. al, 1997 who observed significant impact of self efficacy in determining the health outcomes of arthritis patients. The faith of such individuals in their capability of adapting themselves with the changing events of their life empowers them to rely upon self care habits and self pain managing tasks. Whereas patients with low self efficacy owing to their lesser confidence in dealing with the problem themselves depend a lot on others for instrumental support and turn towards opting maladaptive ways of dealing with it. These passive techniques like suppression may provide immediate satiation but they often degrade the health outcomes in long run.

Moreover, high self efficacious patients can undergo better appraisal of social support which in turn is likely to induce the usage of active coping techniques. As the findings reveal, patients who perceived Positive Social Interaction were more likely to use active coping skills whereas if the amount of Emotional Support perceived lessens the tendency of the patients to implement passive coping ways increases. They turn away from society seeking escape in their depressive thoughts and developing pessimistic attitude. This finding receives support from the research outcomes of Holtzman, Newth & Delongis (2004) who established the link of kind of coping strategy used with the amount and nature of social support perceived.

**CONCLUSION:**

A chronic illness is characterized by uncertain course with frequent confrontation with pain, fatigue and hopelessness which is added with functional disabilities in case of arthritis. With modern medications number of ways of getting rid of dysfunctional part are available and more is talked about 'quantity of life' rather than the quality. The present study was done with

an insight to find out the ways which may enhance the quality living of patients with delimiting functionalities. And we came across the role of social support and self efficacy in determining the usage of effective coping skills. In other words, to enhance better coping techniques of such patients we must provide interventions aimed at increasing the self efficacy level of the person. Moreover, being a significant other of people suffering from chronic illness, we may furnish them with ample needed positive social support.

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