

## **The Role of Social Support in Reducing the Level of Psychological Stress for Workers with Chronic Diseases Pursuing Treatment in the Hospital of Adrar (Algeria)**

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### **Abstract:**

The following study aims to study the role of social support in reducing the level of psychological stress among workers with chronic diseases in Adrar Hospital. In order to carry out this study, the researcher applied the measure of social support to a sample of workers with chronic diseases treated in the hospital of Adrar state estimated at (56).

The study concluded the following results: There is a statistically significant correlation between social support and psychological stress among workers with chronic diseases who follow treatment in Adrar hospital. There are no statistically significant differences in social support according gender among the sample of workers. There are statistically significant differences in psychological pressure according to the type of chronic disease (diabetes / high blood pressure / disability resulting from a traffic accidents) among the sample members.

**Keywords:** psychological pressure; social support; chronic disease.

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## **INTRODUCTION:**

A worker with chronic diseases experiences most of his time stressful situations or problems that impede him, as he cannot confront them in a positive way, and therefore he falls under the stress of psychological pressures. However, if s/he can benefit from social support in an effective way, it may enable him/her to reduce stress and thus avoid having a shock or at least reduce its consequences at the psychological level. Based on what Kotsmeer and his colleagues indicates, the experience of stress and trauma is not the decisive factor in accidents, but its rather the way individuals deal with these events. Moreover, the confrontation process occurs as a result of adopting different methods and strategies. The latter may be effective and lead to an adaptive confrontation, or it may be ineffective, resulting in an unadaptive confrontation. The social support that the individual receives from the social groups to which he belongs, such as family, friends and colleagues at work, school, group, or club play a major role in reducing the negative effects of the bad events and situations that s/he is exposed to. (فايدة حسين ، 2001 ، ص 341،342)

### **The problematic:**

Proceeding from what Parreira et al. (1981) indicate, they concluded that social support is divided into three types. First, moral support that entails providing intimacy and support. Second, the material support that entails providing the individual with direct services and assistance. Finally, informational support which boils down to providing advice and guidance that helps the individual solve problems and give him/her feedback about his/her behavior. (بشرى ، 2009، ص 37 (اسماعيل).

Thus, social support can contribute to reducing stress. Reese (1976) described the latter as any stimuli, that is of a given degree of intensity, and permanence, or changes in the internal or external environment where the adaptive capacity of the organism is

overburdened to the maximum which, in certain circumstances, can lead to behavior disruption. It may also lead to incompatibility, or dysfunction that may cause illness. Thus, the greater the pressure, the more physical and psychological disturbance it follows (عبد المعطي، 2006، ص 20).

Therefore, the problematic was formulated as follows:

Is there a statistically significant correlation between social support and psychological stress among workers with chronic diseases? Are there differences in social support according to the type of chronic disease (diabetes, high blood pressure, disability resulting from a traffic accident) among workers with chronic illness at Adrar Hospital? Are there statistically significant differences in psychological pressure among the same members of the sample?

### **Study hypotheses:**

- 1- There is a statistically significant correlation between social support and psychological stress among workers with chronic diseases in Adrar state hospital.
- 2- There are statistically significant differences in the social support of workers with chronic diseases according to its type (diabetes, high blood pressure, disability resulting from a traffic accident) at the hospital of Adrar state.
- 3- There are statistically significant differences in psychological pressure according to the experience of workers with chronic diseases at the hospital of Adrar state.

This is what the researcher will address in this study by presenting the most important definitions and classifications mentioned for psychological pressure. In addition, the researcher will examine the most important determinants and elements that play an important role in employing social support.

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## **Definition of social support:**

Cope (1976) considers it a cognitive affiliation to a social communication network and reciprocal duties through the group that exists within the social network. As such, the process of interdependence is carried out, where the common values carried by the members of the network are similar and through which, in the end, a relationship of affection, love and mutual care is established (Cope, 1976, P 300).

He also defines it as an individual's belief that s/he is acceptable and valuable by others. Such belief comes from the fact that the individual is a member of a certain group to which s/he belong. (فايد حسين، 2001 ، ص 379).

As for Parreira et al. (1981): they define it as the social support with its three dimensions. First, moral support that includes providing friendliness and support. Second, material support that includes providing the individual with direct services and assistance. Finally, informational support which boils down to providing advice and guidance that helps the individual in solving problems and gives him/her feedback about his/her behavior. (بشرى اسماعيل، 2009، ص 37)

As for Noelbek and others (1981), they see it as the protection that one obtains from a network of social relationships. The latter has three characteristics:

1. The number of network members.
2. Relationship periods.
3. The frequent contact with members of the social network (علي عبد السلام، 2009، ص 38).

## **Defining stress:**

Richard Lazarus (Lazarus 1976) says that stress occurs when there are demands on the individual that exceed his/her adaptive capabilities. (Boudarene, 2005: 15)

Daley (1982) defines it as the condition resulting from an imbalance between the demands of the situation and the individual's ability to respond to these situations (Boudarene, 2005, p14).

As for Cox (1982), he proposes a definition based on the model he presented, whereby pressure is a perceptual phenomenon that arises from the comparison between what a person demands and his ability to deal with it psychologically and physiologically. If the way s/he deals with it is ineffective, the pressure extends causing abnormal responses that lead to functional damage. (Cox, 1982, p25)

Hans Selye (1982), who is considered a pioneer in the field of psychological pressure, believes that psychological pressure is a general and unspecified physical response. It occurs when the body is used in a given requirement, whether it is an environmental condition that must be tolerated or a requirement that we work ourselves towards achieving as a personal goal (حدة يوسفى ، 2016، ص18).

## **Classification of the methods used in dealing with psychological stress:**

### **1. Selye's classification (1946):**

Selye believes that stress is a condition in which the body's balance is threatened, as it does not have a rapid response to face the danger because what is important is not what happens to us but the way we deal with it (Thevenet, 2011,p83).

Hans Selye is the one who enriched the scientific field with the concept of pressure. He defines it as the situations that imposes endeavors of adaptation on the organism, which exceed its capacity. These situations can be physical or psychological. Selye suggests a model for coping with stress called General Adaptation Syndromes (GAS). (ثائر و ابوشعيرة، 2015، ص 128).

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## **2. Lazarus and Folkman's classification:**

They consider that perception is the primary and only determinant of the life events' level of influence on the individual's psychology and health (معروف، 2007، ص 56).

The researchers have identified two ways to deal with crises and pressures:

### **1) Problem-focused coping strategies:**

This method involves the individual's attempts to deal with the source of the crisis. They are the behavioral and cognitive activities that the individual resorts to in order to get rid of the situation that threatens him/her or reduce it. This strategy aims to manage the situations' threats or recruit personal resources for a better confrontation (حدة، 2016، ص 90).

### **2) Emotion-focused coping strategies:**

This method includes attempts by the individual to get rid of the emotional distress that is associated with the stressful situation or at least alleviate it (Jemmet et al, 1996, p233).

**Conclusion:** In view of the foregoing, we conclude that social support, with its various dimensions, may be a major factor in alleviating psychological stress, which is considered an annoying and threatening factor, as it decreases also the harmony between the individual and the environment. This is what the researcher will address in the next stage of this study.

**The objectives of the survey:** They can be summarized in the following points:

- Informing members of the study sample about the standards to be applied on them and ensuring a good understanding of the concepts.
- Ensuring that the study sample will not find it difficult to deal with the measures.
- Ensuring the psychometric properties of the measuring instruments (the validation and reliability of the used standards).
- Ensuring that the assumptions made are procedural and measurable.

### **Characteristics of the study sample:**

The sample of the study included (56) addicted individuals, (32) males and (24) females between the ages of (23 and 54 years), who were randomly selected from the hospital of Adrar state.

### **Survey instruments:**

#### **Psychological Stress Scale:**

In this study, a measure of Psychological Stress Scale was used, which consisted of two parts. The first was devoted to personal data. As for the second one, it was devoted to measuring psychological stress through 50 paragraphs distributed on 3 basic dimensions:

1. The physical symptoms, which includes 19 paragraphs
2. The psychological symptoms, which includes 16 paragraphs
3. The behavioral symptoms, which includes 15 paragraphs

This scale was designed in such a way that the subject determines his/her various symptoms of stress according to Likart's scale of intensity, which carries 5 degrees (Never occur: 1 degree, rarely occur: 2 degrees, occur few: 3 degrees, it happens a lot: 4 degrees, always occur: 5 degrees) (زروال فتيحة ، 2008 ، ص 244).

#### **Social Support Scale:**

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The researcher has relied on the scale of social support for "Rola Hashem" (رولا هاشم), which consists of (46) paragraphs and is divided into three dimensions as shown in the following table:

**Table 1.** shows the distribution of positive and negative paragraphs on each dimension of the scale

| No.          | Dimensions    | Positive paragraphs | Negative paragraphs | Number of paragraphs |
|--------------|---------------|---------------------|---------------------|----------------------|
| 1            | Psychological | 1-12                | 5&9                 | 12                   |
| 2            | Healthy       | 13-24               | 17&22               | 12                   |
| 3            | Economic      | 25-36               | 27&33               | 12                   |
| 4            | Social        | 37-46               | 39&44               | 10                   |
| <b>Total</b> |               |                     |                     | 46                   |

These dimensions are repeated with their paragraphs on the four sources: family, relatives, friends, neighbors and community institutions. Each of the paragraphs is answered by choosing one of the following alternatives: it happens a lot (4 degrees), few (3 degrees), rarely (2 degrees), never (1 degree).

This is with the exception of negative paragraphs that are valid in the opposite of this direction, and all subjects should determine the extent of applicability of each paragraph to him/her, by placing a sign (x) next to the paragraph under the alternative that applies to it. The scale of social support was applied to the sample members, in order to calculate the validity and consistency by appropriate statistical methods.

Statistical discharge is by numbers (5,4,3,2,1)

Statistical discharge is done in SPSS

### **Statistical methods:**

The researcher relied in treating this study on two types of statistical methods:

#### **1- The descriptive statistics:** it includes the following methods:

- Iterations
- Percentages
- Arithmetic averages and standard deviations

#### **2- Inferential statistics:** in which the researcher used:

- Pearson correlation coefficient
- T-Test
- Chevy equation
- The comparison of extreme test
- Halftone segmentation

In addition, the program of statistical treatment in social sciences (20.0SPSS) was used.

### **The result of the first hypothesis:**

The first hypothesis states that there is a statistically significant correlation between social support and psychological stress among workers with chronic diseases.

To test the validity of this hypothesis, the Pearson correlation coefficient was used as shown in the following table:

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**Table 2.** shows the relationship between social support and psychological pressure among workers with chronic diseases

| Dimensions of stress           |                                 | Physical symptoms | Psychological symptoms | Behavioral symptoms |
|--------------------------------|---------------------------------|-------------------|------------------------|---------------------|
| Dimensions of social support   |                                 |                   |                        |                     |
| <b>Psychological dimension</b> | Pearson correlation coefficient | 0.53**            | 0.57                   | 0.62**              |
|                                | Significance level              | 0.02              | 0.02                   | 0.01                |
| <b>Health dimension</b>        | Pearson correlation coefficient | 0.49**            | 0.29**                 | 0.42                |
|                                | Significance level              | 0.01              | 0.04                   | 0.02                |
| <b>The social dimension</b>    | Pearson correlation coefficient | 0.622**           | 0.44**                 | 0.55**              |
|                                | Significance level              | 0.01              | 0.03                   | 0.02                |

From the previous table, it is clear that the values of the correlation coefficient between the dimensions of psychological pressure and the dimensions of social support ranged between 0.29 and 0.62 which are statistically significant at the level of significance 0.05.

Therefore, we can say that the hypothesis that there is a negative correlation statistically significant between social support and psychological pressure among the sample members is valid.

### The result of the second hypothesis

The hypothesis states that there are statistically significant differences in social support by gender among workers with chronic illness in the hospital of Adrar state.

To test the validity of this hypothesis, the "T" test was used as shown in the following table:

**Table 3.** shows the significance of social support differences by gender among workers with chronic disease.

| The sample                     | Males n = 32       |                    | Females n = 24     |                    | t-value | Degree of freedom | Significance level |
|--------------------------------|--------------------|--------------------|--------------------|--------------------|---------|-------------------|--------------------|
|                                | Arithmetic average | Standard deviation | Arithmetic average | Standard deviation |         |                   |                    |
| <b>Psychological dimension</b> | 59.86              | 9.49               | 53.84              | 11.35              | -0.31   | 55                | Not significant    |
| <b>Health dimension</b>        | 52.33              | 13.04              | 49.76              | 11.46              | -1.29   | 55                | Not significant    |
| <b>The social dimension</b>    | 46.66              | 11.82              | 43.62              | 8.26               | -1.44   | 55                | Not significant    |
| <b>Social support</b>          | 139.83             | 20.82              | 159.33             | 15.37              | -1.82   | 55                | Not significant    |

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From the results extracted from the previous table, it is clear that there are no statistically significant differences in social support by gender in all dimensions of the scale and in the overall scale. All calculated (t) values are smaller than the (t) table at the degree of freedom (55) and it is not statistically significant at the significance level (0.05).

Therefore, there are no statistically significant differences in social support by gender among workers with chronic illnesses at the hospital of Adrar state.

**The result of the third hypothesis:**

The hypothesis states that there are statistically significant differences in psychological pressure according to the experience of workers with chronic diseases at the hospital of Adrar state.

To test the validity of this hypothesis, T-test was used as shown in the following table:

**Table 4.** shows the significance of the differences in psychological pressure according to the chronic disease’s type (diabetes, high blood pressure, disability resulting from a traffic accident) at the hospital of Adrar state.

| Variabl<br>es | Source<br>of<br>contrast | Squares<br>sum | Degree<br>of<br>freedom | Average<br>squares | t-<br>value | Signi<br>fican<br>ce<br>level |
|---------------|--------------------------|----------------|-------------------------|--------------------|-------------|-------------------------------|
| Physica<br>l  | Between<br>groups        | 1570.95        | 2                       | 267.33             | 3.69        | Signi<br>ficant               |

|                               |                |          |    |        |      |                      |
|-------------------------------|----------------|----------|----|--------|------|----------------------|
| <b>symptoms</b>               | Within groups  | 6493.28  | 53 | 79.95  |      | 0.001                |
|                               | Total          | 3064.24  | 56 |        |      |                      |
| <b>Psychological symptoms</b> | Between groups | 891.86   | 2  | 142.11 |      | Significant<br>0.005 |
|                               | Within groups  | 903.00   | 53 | 59.34  | 2.65 |                      |
|                               | Total          | 1194.86  | 56 |        |      |                      |
| <b>Behavioral symptoms</b>    | Between groups | 1176.42  | 2  | 129.03 |      | Significant<br>0.001 |
|                               | Within groups  | 842.96   | 53 | 39.35  | 2.79 |                      |
|                               | Total          | 1019.39  | 56 |        |      |                      |
| <b>Psychological pressure</b> | Between groups | 2416.14  | 2  | 872.58 |      | Significant<br>0.001 |
|                               | Within groups  | 5184.76  | 53 | 110.21 | 4.46 |                      |
|                               | Total          | 14600.91 | 56 |        |      |                      |

It is clear from the table that there are statistically significant differences in psychological pressure according to the type of chronic disease, whether in the scale as a whole or in its three dimensions. The level of significance in the physical symptoms dimension at (0.001), psychological symptoms dimension at (0.005), and behavioral

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symptoms dimension, the level of significance was at (0.001), while on the overall scale, the level of significance was at (0.001).

In light of these findings, the results of the hypotheses will be discussed.

### **The discussion of results:**

**The discussion of the first hypothesis:** it states that there is a statistically significant correlation between social support and psychological stress among workers with chronic diseases.

Through the results drawn from the previous table, which show that the values of the correlation coefficient between the dimensions of psychological pressure and the dimensions of social support ranged between 0.29 and 0.62 and it has significance statistically at the level of significance 0.05. Therefore, we can say that the hypothesis that there is a negative correlational relationship statistically significant between social support and psychological pressure among the sample members is valid.

This is explained by the fact that the greater the social support in its three dimensions, the lower the level of pressure in its three dimensions as well, and the stronger the social relations between them. That is, others' support to the individual or worker when s/he faces a problem alleviates his/her pressures and anxiety. This is according to the study of "Ross and Cohen 2004" which showed the positive effect of social support on the psychological health of individuals. This hypothesis is also consistent with Ali's (علي) (2000) study, which found that the role of social support in mitigating the negative effects of psychological stress is so important. Furthermore, it is also clear, from these results, that the effectiveness of social support appears more when there is a stressful situation that works to adjust the degree of stress in one's psychological health and works on improving it.

**The discussion of the second hypothesis:** It states that there are statistically significant differences in social support by gender among workers with chronic illness. It is clear from the results of the previous table that there are no statistically significant differences in social support by gender in all dimensions of the scale and in the overall scale. All calculated (t) values are smaller than the (t) table at the degree of freedom (55) and it is not statistically significant at the significance level (0.05). Therefore, there are no statistically significant differences in social support by gender among workers with chronic illnesses at the hospital of Adrar state.

It has been explained by the fact that the injured, male and female, are experiencing similar stress situations as a result of the effects of psychological stress resulting from the chronic diseases. Therefore, they do not differ in their assimilation of the social support that they actually receive.

This result was contrary to the researcher's expectations, especially when we include the role of socialization that encourages practicing assertive control behaviors and cognitive independence on the one hand. On the other hand, it encourages females to engage in sensitivity, compassion, and cooperation, which causes females to interpret stressful situations as being beyond their control and impossible to confront. This what socialization supportes in defining the roles of both males and females.

We also see this difference in the field of coping with psychological stress, which is clearly linked to social support. In her study, Siham Tebbi (طبي سهام) (2005) found that there were no differences between males and females in the coping strategies adopted in the face of post-traumatic stress in patients with burns (طبي سهام، 2005: 188). Her study contrasted with many studies, including the ASCH and Crutchfied studies, which found that males are more used to solve the problem than females. However, females are more likely to undergo social pressure. This reflects the cultural differences in gender roles, as it is believed that men are more efficient and superior to women in

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cognitive performance, especially problem-solving ( 1998، حسن علي حسن 117:).

**The discussion of the third hypothesis:** It is clear from the table that there are statistically significant differences in psychological pressure according to the type of chronic disease, whether in the scale as a whole or in its three dimensions. The level of significance in the physical symptoms dimension at (0.001), psychological symptoms dimension at (0.005), and behavioral symptoms dimension, the level of significance was at (0.001), while on the overall scale, the level of significance was at (0.001).

In order to find out the direction of the differences between disciplines and compare between them, Scheffe's equation was used as shown in the following table:

**Table 5.** shows the differences between the averages based on the Scheffe's equation:

| Type of chronic disease   | Number of the sample's individuals | Arithmetic average of adaptation strategies |
|---------------------------|------------------------------------|---------------------------------------------|
| <b>Diabetes</b>           | 34                                 | 13.33                                       |
| <b>Hypertension</b>       | 29                                 | 12.54                                       |
| <b>Traffic disability</b> | 23                                 | 19.21                                       |

From the table we note that there is a sequence in the averages. The biggest average was at the category of disability resulting from a traffic accident and it was estimated with (19.21), followed by the

category of high blood pressure with an average rate of (12.54) and in the latter category, the diabetes, with an average rate of (13.33). These results can be explained by the psychological stress characteristics of each group in addition to the resulting symptoms.

In the first place comes the category of disability resulting from a traffic accident the largest arithmetic average. This can be explained through the interviews conducted with them, where they showed that the disability caused them failure in life and that these disabilities disabled them from overcoming many of the ordeals without disability. They, especially those with motor disabilities, often link their failure to overcome adversity to disability.

In second place comes the category of high blood pressure with an arithmetic average that is lower than the first category. This can be explained by the fact that they are in danger, but they carry out their duties in a normal way. In addition, the age factor plays an important role, for they sometimes give in to the reality and link the rise in blood pressure to age. This makes them more resistant to pressure if compared to the first category.

In the last place, we find the category of diabetes with the lowest arithmetic average. They have expressed that diabetes has become common and that they can alleviate its symptoms through discipline in medication, walking, and exercise for some of them. Some of them also indicated that they expecting diabetes, because they considered it hereditary, and that they have in the family members with diabetes who practice their daily life normally.

## **Conclusion**

The following study dealt with the role of social support in reducing the level of psychological stress among workers with chronic diseases who are pursuing treatment in the hospital of Adrar state. The study concluded the following results:

- There is a statistically significant correlation between social support and psychological stress among workers with

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chronic diseases who pursue their treatment at Adrar state's hospital. This was explained by the fact that the alleviation of psychological stress is due to social support, as the relationship has been achieved between all dimensions in the two scales.

- There are no statistically significant differences in social support by gender among workers with chronic diseases who are pursuing treatment in the hospital of Adrar state. This was explained by the fact that those with chronic diseases, whether male or female, suffer from the same pressures and therefore they do not in their assimilation of the social support and its impact on their psychological state.

- There are statistically significant differences in psychological pressure according to the type of chronic disease (diabetes / high blood pressure / disability resulting from a traffic accident) among the sample members. This was due to the nature of the disease, the extent of its danger to the worker, and to the extent of its spread in the community to which the workers under study belong.

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