Body Image, Feeling Loneliness, and Suicidal Thoughts among Elderly People with Rheumatoid Arthritis

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Abstract:
Background: Rheumatoid arthritis affects the patient’s perception of his/her owns body. The aim of the study was to examine the relationship between body image, feeling of loneliness and suicidal thoughts among elderly patients with rheumatoid arthritis. Design: A descriptive correlational design was utilized to achieve the aims of the study. Setting: This study was conducted at the outpatient’s clinics of Dr/ Hassan Awad (Health Insurance) Benha City. Sample: A convenience sample type of 120 elderly people with rheumatoid arthritis from rheumatology clinic at the previously mentioned setting. The tools of data collection: Were interview questionnaire about socio demographic and disease characteristics of the subjects, interviewing questionnaire sheet to examine patient’s perception to their body image, Loneliness Scale to examine the level of loneliness, Suicidal Thought Scale to evaluate patient suicidal thoughts. Results: Near to one third of the studied subjects had high level of body image, less than half of the studied patients had high level of loneliness and the minority of the studied patients had suicidal thoughts. Conclusion: The studied patients had disturbed body image, high level of loneliness. There was a positive highly statistically significant correlation between total score of body image with total score of feeling loneliness and total score of suicidal thoughts. Recommendations: Patients’ education should be aimed at strengthening body image and social life, the need to target interventions not only to patients but also to their family members and health professionals to recognize disturbed body image and feeling of loneliness.

Keywords: Rheumatoid arthritis, body image, loneliness, suicidal thoughts.

Introduction
According to United Nations Population Division projections, the2019 revision, by 2050, one in six people in the world will be over age 65 (16%), up from one in 11 in 2019(9%). By 2050, one in four persons living in Europe and Northern America could be aged 65 or over. In 2018, for the first time in history, persons aged 65 or above outnumbered children less than five years of age globally (World Health Organization, 2018).

Rheumatoid arthritis is a disorder of the immune system that can occur at any age in either sex but it is predominately a disease of middle aged women. The disease is rare among men younger than 45 years of age while it occurs four times more in women who are less than 50 years old. In women, rheumatoid arthritis occurrence peaks around the menopause. No one can know causes of rheumatoid arthritis, researchers speculate that a virus may initially trigger the body’s immune response which then becomes chronically activated and turns on itself (Tracy et al., 2017).
The main manifestations of rheumatoid arthritis include joint pain, joint swelling, warmth, redness and stiffness, especially first thing in the morning or after sitting still for a long time. Other manifestations of rheumatoid arthritis include tiredness, lack of energy and not feeling hungry. Weight loss, fever, sweating, dry eyes and chest pain as a result of inflammation (American College of Rheumatology, 2018).

The term body image can broadly be defined as an attitude we have towards our body and our physical perception of it and the picture of our body which we form in our mind that is to say the way in which our body appears to ourselves. Body image is defined as a psychological feeling that one has about his /her appearance and body functioning (Chao, 2015).

Researchers on body image for patients with rheumatoid arthritis suggest that patients are less likely to describe themselves as attractiveness than healthy controls. Concerns about body image focused on body parts and characteristics as associated with disability. About 30% of rheumatoid arthritis patients reported that their disease made them feel unattractive and these feelings have associated with high level of depression (Monaghan et al., 2019).

Loneliness is the psychological embodiment of social isolation and represents a person’s perception of dissatisfaction in the quality or quantity of his/her social contacts. Loneliness is a psychological condition resulting from a perceived lack of social contact. It is defined as a complex set of feelings encompassing reactions to the absence of intimate and social needs. It is a unique experience that occurs in all stages of life (Poscia et al., 2017).

Patient with rheumatoid arthritis may actively reduce contact with family, friends and other social networks. This has been attributed to patient decreasing his/her social network through friends having not understood the pain or the quality of contacts being reduced as patient feel that has to hide his/her true state of being. This will lead to great degree of loneliness with reduced chances for physical activity impacting on physical and mental health (Kool & Geenen, 2019).

Suicide can be defined as the destruction of oneself, self-killing or self-murder in the legal sense. Another more detailed definition is an act with a fatal outcome that is deliberating initiated and performed by the decreased him being considered by the actor as instrumental in bringing about desired changes in consciousness and social conditions. Suicidal ideation refers to thoughts that life isn’t worth living ranging in intensity from feeling thoughts through to concentrate, well thought-out plans for killing oneself or complete preoccupation with self-destruction (Nock, et al., 2016).

Rheumatoid arthritis is the most prevalent chronic inflammatory musculoskeletal disease. It is a somatic disorder that is known to be associated with several negative psychological outcomes including depression. Suicidal ideation is a core of symptoms of major depression and is seen in patients with physical and somatic illness. It has been stated that suicidal ideation, occurring in somatic patients, may arise from a comorbid depression (Li et al., 2018).

Nurse has an important role in helping and supporting patients and families who are affected by rheumatoid arthritis in many areas of the healthcare continuum. Nurse may be heavily involved in monitoring and advising people about how to manage their disease to enable optimal physical, psychological and social function. Important facets of the role include patient education and facilitating self-management of symptoms, support at
diagnosis and throughout the disease process, drug counseling and monitoring and the coordination of care (Walker, 2018).

**Aim of the Study**
The aim of the study was to examine the relationship between body image, feeling of loneliness and suicidal thoughts among elderly patients with rheumatoid arthritis.

**Research Questions**
- What is the level of body image perception among elderly people with rheumatoid arthritis?
- What is the level of feeling of loneliness among elderly patients with rheumatoid arthritis?
- What is the level of the suicidal thoughts among elderly people with rheumatoid arthritis?
- What is the relation between body image, feeling of loneliness and suicidal thoughts among elderly people with rheumatoid arthritis?

**Subjects and Methods**

**Research Design:**
A descriptive correlational design was utilized to achieve the aims of the study.

**Research Setting:**
The study was conducted at the outpatient’s clinics of Dr/ Hassan Awad (Health Insurance) in Benha city.

**Sample:**
A convenience sample type included 120 elderly people with rheumatoid arthritis from the previously mentioned setting.

**Tools of data collection**
- **Tool (I): Interview questionnaire**
  Structured interviewing questionnaire sheet was developed by the investigator after reviewing the related literature to assess socio-demographic of the subjects under the study included: age, sex, marital status, level of education, occupation, income, and family type.

- **Tool (II): Interview questionnaire**
  Interviewing questionnaire sheet was adopted by Gamal, (2016). It was used to examine patient’s perception to their body image.

  **Score system of perception to body image**
  All items were scored from 0-3, Never= 0, Rarely = 1, Sometimes = 2, Always= 3.

- **Tool III: ULCA Loneliness Scale**
  This scale was adopted by Russell et al., (1986). It was used to examine the level of loneliness.

  **Score system of loneliness**
  All items were scored from 0-3, Never= 0, Rarely = 1, Sometimes = 2, Always= 3.

- **Tool IV: Suicidal Thought Scale**
  This scale was adopted .It was used to evaluate patient suicidal thoughts.

  **Score system of suicidal thought**
  All items were scored from 0 to 2.

**Validity and reliability**
Validity and reliability of the tools: 5 experts in Pediatric Nursing content to clarity test validity while, test retest was performed for reliability.

**Ethical considerations**
Each study subject had the freedom to be involved in the study or to withdraw at any time, data was explained to the nurses and informed consent was obtained from subjects at previously mentioned settings for participation in the study before data collection ensuring complete privacy and total confidentiality.

**Pilot study**
A pilot study was carried out on 10 % (N = 12 patients) of the expected sample size chosen randomly to test the tools of data collection and the applicability of the tools (participants involved in the pilot study were excluded from the study sample).
Field work

The investigator introduced herself to the subjects and dealt with them using simple Arabic language. Oral consent was obtained from each subject. Each interview lasted for 10 to 15 minutes depending on the response of the interviewer. Data were collected throughout the period from beginning of May, 2019 till end July, 2019.

Statistical analysis:-

Data was coded and transformed into specially designed form to be suitable for computer data entry process. Data was manipulated and analyzed using Statistical Package for Social Science (SPSS) version 19. Graphics were done by using Excel program.

Results

Table (1): Shows that 63.3% of studied subjects are at the age group between 60 to <70 years. 72.5% of them are females. 45.8% are illiterate. 68.3% of them are married. And all of them are not working. 67.5% have enough income. 65.0% of them has nuclear family. Disease characteristics such as (help from family, movement difficulty, joint deformity, practicing daily activities normally, effect of disease on psychological status and sleep disorder, 70% of the studied subjects complain that the disease affected on their psychological status. 66.7% of them expressed that the disease affected on their ability to practice daily life activates. 63.3% 61.7% & 60% of the studied subjects expressed that they need help from their family, they have sleep disorder, movement difficulty and joint deformity respectively.

Figure (2): Clarifies that 29.2% have high level of body image, 56.6% of them have moderate level of body image and 14.2% have low level of body image.

Figure (3): Clarifies that 44.2% of subjects has high level of loneliness, 31.7% of them have moderate level of loneliness and 24.1% of them had low feeling of loneliness.

Figure (4): Illustrates that 84.2% of patients had no suicidal thoughts. 11.7 of them had mild suicidal thoughts and only 4.1% of them had moderate suicidal thoughts.

Table (2): Shows that there was a positive highly statistically significant correlation between the total score of body image with both of total score of feeling of loneliness and total score of suicidal thoughts. There was a positive highly statistically significant correlation between feeling of loneliness and suicidal thoughts.
Table (1): Distribution of the personal data of the studied subjects (n=120).

<table>
<thead>
<tr>
<th>Personal characteristics</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>From 60 &lt;70</td>
<td>76</td>
<td>63.3</td>
</tr>
<tr>
<td>From 70 and over</td>
<td>44</td>
<td>36.7</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>33</td>
<td>27.5</td>
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<tr>
<td>Female</td>
<td>87</td>
<td>72.5</td>
</tr>
<tr>
<td>Educational level</td>
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<td></td>
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<tr>
<td>Illiterate</td>
<td>55</td>
<td>45.8</td>
</tr>
<tr>
<td>Read and Write</td>
<td>21</td>
<td>17.5</td>
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<tr>
<td>Intermediate Education</td>
<td>24</td>
<td>20.0</td>
</tr>
<tr>
<td>Higher Education</td>
<td>20</td>
<td>16.7</td>
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<tr>
<td>Social status</td>
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</tr>
<tr>
<td>Single</td>
<td>5</td>
<td>4.2</td>
</tr>
<tr>
<td>Married</td>
<td>82</td>
<td>68.3</td>
</tr>
<tr>
<td>Divorce</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td>Widow</td>
<td>30</td>
<td>25.0</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Does not work</td>
<td>120</td>
<td>100.0</td>
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<tr>
<td>Income</td>
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<td></td>
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<tr>
<td>Not Enough</td>
<td>32</td>
<td>26.7</td>
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<tr>
<td>Enough</td>
<td>81</td>
<td>67.5</td>
</tr>
<tr>
<td>Enough and save</td>
<td>7</td>
<td>5.8</td>
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<tr>
<td>Type of family</td>
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<tr>
<td>Nuclear</td>
<td>78</td>
<td>65.0</td>
</tr>
<tr>
<td>Extended</td>
<td>42</td>
<td>35.0</td>
</tr>
</tbody>
</table>

Fig (1): Distribution of the negative effect of the disease on the studied subjects (n=120).
Body Image, Feeling Loneliness, and Suicidal Thoughts among Elderly People with Rheumatoid Arthritis

Fig (2): Distribution of the total body image level among studied subjects (n=120)

Fig (3): Distribution of the level of loneliness among the studied subjects (n=120)

Fig (4): Distribution of the level of suicidal thoughts among the studied patients. (n=120)

Table (2): Correlation between total body image, feeling of loneliness and suicidal thoughts among the studied subjects (n=120)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Body image</th>
<th>Feeling loneliness</th>
<th>Suicidal thoughts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
<td>P</td>
<td>r</td>
</tr>
<tr>
<td>Body image</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Feeling loneliness</td>
<td>0.744</td>
<td><strong>0.000</strong></td>
<td>-</td>
</tr>
<tr>
<td>Suicidal thoughts</td>
<td>0.674</td>
<td><strong>0.000</strong></td>
<td>0.652</td>
</tr>
</tbody>
</table>
Discussion

Regarding the personal data of the studied patients, the present study was carried out on 120 patients that revealed that less than two thirds of studied patients are at the age group between 60 to <70 years. This result was similar to the results performed by Kato et al., (2017) in a study entitled "The age at onset of rheumatoid arthritis is increasing in Japan: a rheumatoid arthritis", who found that most of the subjects are at the age group between 60 to <70 years.

Concerning sex of the studied patients, the current study illustrated that, less than three quarters of them are female. This result was congruent with Vollenhoven (2017), whose study was" Sex difference in rheumatoid arthritis: more than meets the eye" reported that more than of the half of patients is females.

As regarding the educational level of the studied patients, the present study viewed that, less than half of the studied patients were illiterate. However, Kim et al., (2019) whose study was "Effect of formal education level on measurement of rheumatoid arthritis disease activity" stated that nearly half of patients with rheumatoid arthritis were high school.

The present study revealed that, nearly two thirds of the studied patients were married; this result was congruent with Gamal et al., (2016) whose study was "Quality of life assessment in Egyptian rheumatoid arthritis patients" reported that most of their subjects were married.

Regarding to the occupation, all of the studied patients were not working. This result was consistent with Houssien et al., (2017), whose study was titled "The association between work disability and mental health in rheumatoid arthritis"; found that the most of the subjects were not working.

The result of the current study revealed that about two third of the studied patients had enough income. This was not supported by Shanahan et al., (2016) in a study entitled "The effect of rheumatoid arthritis on personal income in Australia" who found that most of the subjects had not enough income.

Regarding type of family, nearly two thirds of the studied patients having nuclear family, this was not supported by with Chaney & Peterson (2018) whose study was to "Family variables and disease management in rheumatoid arthritis" who found no connection between family type and rheumatoid arthritis.

Regarding the need help from family, more than half of the studied patients needed help from family. This was supported by Verhoeven et al., (2016) in his study about "Physical activity in patients with rheumatoid arthritis" who reported that the studied subjects need help from family.

Concerning the presence of movement difficulty, about half of the studied patients had movement difficulty. This is in the same line with Kinkili et al., (2018) mentioned in his study "Predictors of Fear of Movement in Patients with Rheumatoid Arthritis" that the studied subjects had movement difficulty.

Regarding the presence of joint deformity, about more than half of the studied patients had joint deformity. This agreed with Faye & John (2015) whose study entitled "Pathophysiology of rheumatoid arthritis", reported that most of the studied subjects had joint deformity.

According to ability to practice daily activities, nearly two thirds of the studied patients found difficulty in practice their daily activities. This result was supported by Mok, (2018) whose study entitled "Morning Stiffness in Elderly Patients Rheumatoid Arthritis: What is Known about Effect of Biological and Targeted Agents" reported that
most of the studied subjects had difficulty in practice their daily activities.

Regarding effect of rheumatoid arthritis on psychological status, nearly more than two third of the studied patients complain that disease effect on their psychological status. These findings agreed with Sturgeon et al., (2016) who's study was to "Affective disturbance in rheumatoid arthritis: psychological- related pathways" reported that studied subjects had psychological effects due to rheumatoid arthritis.

A regard to sleep disorder, more than half of the studied patients suffer from sleep disorder. These findings are consistent with Goes et al., (2017) in her study about "Rheumatoid arthritis and sleep quality" reported that sleep disorder is common in patients with rheumatoid arthritis.

The present study indicated that only near one third of the studied patients has high level of disturbed body image, more than half of them have moderate level of disturbed body image and less than one sixth of the patients have low level of body image. This is result was in the same line with Cash et al., (2016) "Measuring "negative body image": validation of the Body Image Disturbance Questionnaire in a nonclinical population" claimed that there was disturbed body image.

Regarding to feeling of loneliness, less than half of the studied patients have high level of loneliness, less than one third of them have moderate level of loneliness and less than quarter of them have low feeling of loneliness. This result agreed by Klak et al. (2016) whose study was to "Social implications of rheumatic diseases" suggested loneliness increase in rheumatoid arthritis' patients than normal population.

Regarding frequency distribution of the suicidal thoughts among elderly patients with rheumatoid arthritis, the majority of the studied patients have no suicidal thoughts, minority of them have mild suicidal thoughts and only a small percentage of them have moderate suicidal thoughts. These findings disagreed with Timonen et al., 2019 in their study about "Suicides in persons suffering from rheumatoid arthritis " reported that suicidal thoughts is common in patients with rheumatoid arthritis.

The current study showed that there was a positive highly statistically significant correlation between body image and feeling of loneliness. This result was in agreement with McBain et al. (2017) whose study was to "The Impact of Appearance Concerns on Social Activities in Rheumatoid Arthritis" claimed that there are a strong connection between the effect of body image on feeling loneliness and social isolation.

There was highly statistically significant correlation between body image and suicidal thoughts. This result supported by Horita et al. (2019) whose study was to" body image related to depression, anxiety and suicidality" reported that there was a significant relation between body image and suicidal thoughts.

The present study indicated that there was a positive highly statistically significant correlation between feeling of loneliness and suicidal thoughts. This result was in the same line with Nobel, 2018 whose study was to" Forging connection against loneliness" claimed that there was a significant relation between loneliness and suicidal thoughts.

**Conclusion**

Rheumatoid arthritis patients had worse body image. It is important for rheumatologists and nurses to attach attention to body image disturbance in rheumatoid arthritis patients. Rheumatoid arthritis patients had high level of loneliness. It is important for rheumatologists and nurses to attach attention to in rheumatoid arthritis patients.
Rheumatoid arthritis patients had no suicidal thoughts.

**Recommendations**

1) In the light of the study findings, the following recommendations are suggested that patients' education should be aimed at strengthening body image and social life, the need to target interventions not only to patients but to their family members and health professionals to recognize disturbed body image and feeling of loneliness among elderly patients with rheumatoid arthritis.

2) Further studies should be done about body image, feeling of loneliness and suicidal thoughts in elderly patients with rheumatoid arthritis.

**References**

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الولخص العربي

هجلت المقال

الصورة الجسدية و الشعور بالوحدة والانتصارات الانتحارية لدى كبار السن المصابين بالالتهاب المفاصل

الروماتويدي

اميرة عبد الرحمن – معالي إبراهيم المالكي – فتحية سعيد

التهاب المفاصل الروماتويدي من أمراض المناعة الذاتية الذي يرتبط ارتباطًا ثقًا بحدود اثار النشاط شديدة. لذلك هدفت الدراسة إلى فحص العلاقة بين صورة الجسم و الشعور بالوحدة والانتصارات الانتحارية بين المرضى المسنين المصابين بالالتهاب المفاصل الروماتويدي، وقد أجريت هذه الدراسة في العيادات الخارجية للدكتور/ حسن عوض التابعة للتأمين الصحي بمدينة بنها على 120 مسنًا مصابين بالالتهاب المفاصل الروماتويدي. حيث كشفت النتائج على أن المرضى المسنين بالالتهاب المفاصل الروماتويدي لديهم مستوى عال من اضطراب صورة الجسم ومستوى عال من الشعور بالوحدة وعدم وجود أفكار انتحارية. كما أوصت الدراسة بأهمية التثقيف الصحي لتحسين صورة الجسم وحياة الاجتماعية لدى المرضى المسنين المصابين بالالتهاب المفاصل الروماتويدي.