Determination the Quality of Life for Patient with Hyperthyroidism Who Admitted to the Endocrine and Diabetic Center in Karbala City.

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Abstract

Background: The subjective assessment of the impact of disease and therapy across the physical, psychological, social, and somatic domains of functioning and well-being is known as health-related Quality of life (QoL). Particularly, patients with chronic diseases are not only physically ill, but they also exhibit a variable emotional distress and report a decreased QoL.

Objective: To determine the quality of life for patients with hyperthyroidism.

Methodology: Quantitative – descriptive study design selected to offer proper solution for the detected potential problem in specific health setting from the period between (22. December 2020 to 30. Join.2021). Non-probability purposive sample of (46) patient was selected to determine the quality of life for patients with hyperthyroidism. Al-Hassan specialized center (Endocrine and diabetic center) at Imam Al-Hussein teaching hospital in Karbala city. The steps will be performed in order to carry out the questionnaire was used to facilitate data collection, the questionnaire consisted of two parts: part one is sociodemographic characteristic and part two contain (4) domains: physical well-being, psychological well-being, social concerns and spiritual well-being.
**Result:** The dominate characteristics of the participants who involved in the study presented that the higher percentages of the subjected 19 (41.30%) were more than 30 year-olds. Related to gender 29 (63.04%) were male, higher percentage 27 (58.70%) were married. High percentage of educational level were college, 31 (67.39%) recording for urban residency, 29 (34.78%) no enough monthly income. Most of the response recording quality of life domains (moderate) related to physical, social, spiritual wellbeing and (high) for psychological well being.

**Conclusion:** All the responses of participant about the quality of life domains for patient with hyperthyroidism wear moderated.

**Key Word:** Quality of Life, Patient, Hyperthyroidism

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**Introduction**

The subjective assessment of the impact of disease and therapy across the physical, psychological, social, and somatic domains of functioning and well-being is known as health-related Quality of life (QoL). (Revicki et al., 2000). Particularly, patients with chronic diseases are not only physically ill, but they also exhibit a variable emotional distress and report a decreased QoL (Bianchi, *et al.*, 2004; Martino, *et al.*, 2018; Ponto, *et al.*, 2013).

The prevalence of hyperthyroidism in the United States is approximately 1.2%, with subclinical hyperthyroidism (i.e. low or undetectable serum thyrotropin [TSH] with normal serum free thyroxine [FT4] and triiodothyronine [FT3]) being more frequent than overt hyperthyroidism (i.e. low or undetectable TSH and high FT4 and/or FT3) (Ross, *et al.*, 2016). Furthermore, the epidemiology of hyperthyroidism varies based on iodine status, with Graves’ disease accounting for 60-80% of cases of hyperthyroidism in iodine sufficient areas (Carle, *et al.*, 2011).
Thyroid hormone excess is termed “thyrotoxicosis”, while the term “hyperthyroidism” is restricted to thyrotoxicosis due to inappropriately high synthesis and secretion of thyroid hormones (Ross et al., 2016). However, in the daily practice and in this review, “thyrotoxicosis” and “hyperthyroidism” are used interchangeably.

Thyroid function is regulated by a number of hormones and substances. Thyroid hormone, calcitonin, and iodine are three of the most important. (American Association of Clinical Endocrinologists 2015).

Thyroid hormone is made up of two hormones generated by the thyroid gland: T4 and T3 are both amino acids with iodine molecules attached to the amino acid structure; T4 has four iodine atoms, whereas T3 has three. These hormones are generated and kept in the thyroid gland's cells linked to proteins until they are released into the bloodstream (American Thyroid Association ,2015).

1.2 objective

1. To determine the quality of life for patient with hyperthyroidism.
2. To find relationship between socio-demographic characteristic and quality of life
Methodology:

Study Design:

Quantitative study - descriptive design selected to offer proper solution for the interested phenomena in order to detected potential problem in specific health setting from the period between (22. December. 2020 to 30. June 2021).

Setting:

Al-Hassan specialized center (Endocrine and diabetic center) at Imam Al-Hussein teaching hospital in Karbala city.

Sampling:

Non –probability purposive sample of (46) patients who previously diagnosed with hyperthyroidism who attend the endocrine and diabetic center were selected.

The questionnaire: special questionnaire which adapted from (American college of surgeon’s division of education)

Were modified to be able for data collection, it consists four dominoes: physical (10) items, psychological (5) items, social (5), spiritual (5) items. The scoring system determined as always, sometime and never, three Likert scale used in rating as 3 for always, 2 for some time, 1 for never.

Ethical consideration:

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Formal acceptance was obtained from scientific committee- college of nursing- university of al-Ameed, formal agreement was obtained from the administration department of the endocrine and diabetic center to facilitated data collection, oral agreement was taken from the participants after explaining the objectives of the study and they be sure that the information used only for research purpose.

Data collection:

Face to face interview method used for data collection, the questionnaire items need about (10-15) mint to completely filled, the participant met when they attend the out patients of the center. According to the monthly visited.

For statistical management of the data SPSS version 21 was used
Results:

Figure (1): Distribution of studied sample according to age group.

This figure shows that higher percentage 19(41.30%) of the participants were ≥30 years old.
Figure (2): Distribution of studied sample according to Gender.

This figure shows that the higher percentage 29 (63.04%) of the patient were male.

Figure (3): Distribution of studied sample according to marital status.

This figure shows that the higher percentage 27 (58.70%) were married.
Figure (4): Distribution of studied sample according to Education level.

This figure shows that the higher percentage 14 (30.43%) of the participant were college.

Figure (5): Distribution of studied sample according to Residence.

This figure shows that the higher percentage 31(67.39%) were urban resident
Figure (6): Distribution of studied sample according to month income.

This figure shows that the higher percentage 29(63.04%) of the patient were enough month income.

Figure (7): Bar chart distribution of studied sample According to occupation.

The figure shows that the higher percentage 16(34.78%) of the patient were free work.
Table (1): Assessment overall domains of the quality of life for patient with hyperthyroidism.

<table>
<thead>
<tr>
<th>Items</th>
<th>Freq.</th>
<th>MS</th>
<th>Assess.</th>
<th>% resp.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Always</td>
<td>Sometime</td>
<td>Never</td>
<td></td>
</tr>
<tr>
<td>Physical Well Being</td>
<td>18</td>
<td>27</td>
<td>1</td>
<td>2.25</td>
</tr>
<tr>
<td>Psychological Well Being</td>
<td>30</td>
<td>15</td>
<td>1</td>
<td>2.36</td>
</tr>
<tr>
<td>Social Concerns</td>
<td>28</td>
<td>14</td>
<td>4</td>
<td>2.32</td>
</tr>
<tr>
<td>Spiritual Well Being</td>
<td>20</td>
<td>19</td>
<td>7</td>
<td>2.20</td>
</tr>
<tr>
<td>Quality of life (Overall Domains)</td>
<td>21</td>
<td>23</td>
<td>2</td>
<td>2.28</td>
</tr>
</tbody>
</table>

This table shows that the responses of the participants were (moderate) related to overall domains of the quality of life for patient with hyperthyroidism.

Table (2): Relationship between Socio-demographic characteristic and quality of life.

<table>
<thead>
<tr>
<th>Socio-demographic data</th>
<th>Quality of Life</th>
<th>X² (df)</th>
<th>P-value (Sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Poor</td>
<td>Moderate</td>
<td>Good</td>
</tr>
<tr>
<td>Age group (Years)</td>
<td>&lt;= 30</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>31 - 41</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>42 and More</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Level of Education</td>
<td>No read and write</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Read and write</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>College</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Post graduate</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Income</td>
<td>Enough</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Enough to some extent</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Not Enough</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Residence</td>
<td>Urban</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>
This table presented relationship between Socio-demographic characteristic and quality of life, while no significant change in the result of the domains.

**Discussion**

The result of demographic characteristics shows that high percentage of the patients with hyperthyroidism according age 19(41.30%) of the participants were ≥30 years old. While the gender 29(63.04%) of the patient were male. This results agree with the finding of published study in 2018, which carried on hyperthyroidism patients, which indicated that the sample who reported that that bimodal peak of patients with hyperthyroidism lie at age 20–39 years. Regarding gender, they reported that male: female ratio of up to 3:1.(Taylor, et al., 2010). However, many other studies confirmed that female is a risk factor for hypothyroidism, which indicated that sex hormones (estrogens and progesterone) Hypothyroidism and hyperthyroidism are thought to be caused by unbalanced inactivation of the X chromosome. (De Leo et al., 2016).
The high percentage of the patients with hyperthyroidism according to marital status 27 (58.70%) were married, Education level 14 (30.43%) of the participant were college, according to Residence. higher percentage 31(67.39%) were urban resident, month Income the higher percentage 29(63.04%) of the patient were enough month income and the occupation higher percentage 16(34.78%) of the patient were free work. The results agree with study in (Novoa, et al., 2010)

The results of the current study have shown that there was a moderate level of physical problems, these results come in agreement with (Gulsoy-Kirnap, et al., 2020), they reported that the chemical changes associated with hyperthyroidism may result in many physical problems such as: increased cardiovascular risk, fatigue, reduced bone mineral density, and impaired muscle function.

The results showed that menstrual disturbances are the most common physical disorder, this results agree with (Saei Ghare Naz, et al., 2020), hey reported that thyroid disorder, such as hyperthyroidism, has a significant impact on women's reproductive health. Hyperthyroidism causes a variety of menstruation problems, including irregular periods, heavy bleeding, oligomenorrhea, amenorrhea, and breakthrough bleeding. Menstrual disruption was shown to be more common with severe thyroid dysfunction, according to Kakuno. In hyperthyroidism and hypothyroidism, the
most prevalent menstrual symptoms are oligo menorrhea and polymenorrhea, respectively. (Kakuno, et al., 2010).

Regarding assessment of the Psychological Well Being, the results agree with (Sjolin, et al., 2019), They discovered that patients with hyperthyroidism must use a variety of treatments to replace the functions of these glands; treatments that have varying effects on the patient and may cause high levels of stress, tension, and concern about treatment outcomes, necessitating research on these topics a result, sickness, like health, includes not only of the patient's bodily afflictions, but also of biological, social, psychological, and emotional realities, among others. These are engaged in the patient's assessment, are related to their circumstances, and have an impact on the patient's opinion of quality of life. (Novoa Gómez et al., 2010).

The current study explained that social and spiritual domain were moderately affected by hyperthyroidism, these results come in agreement with (Gulsoy-Kirnap, et al., 2020) Patients' issues in personal relationships and at work highlight the practical significance of emotional and cognitive dysfunction. Because the social ramifications of the symptoms listed here cause so much suffering in daily life, many patients find that psychological support is desired or necessary throughout and after recovery from hyperthyroidism.
Conclusion:

All the responses of participant about the quality of life domains for patients with hyperthyroidism show moderated level.

The result presented no significant relationship between the Socio-demographic characteristic domains and quality of life.

Recommendation:

For study recommended to perform on largest group of patients who diagnosis with hyperthyroidism and hypothyroidism to assess their QOL.

References:


  o https://doi.org/10.1023/B:QURE.0000015315.35184.66.
  o https://doi.org/10.1210/jc.2012-3119


