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# A CONCEPTUAL FRAMEWORK FOR WORK ABILITY IN THYROID DISEASES: A REVIEW

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## ABSTRACT

As noted by Tengland, Work ability is an acquired ability that is defined as the qualities required to perform a given task, either a necessary skill, competence, or the ability to cope with a problem in the context of work. This article shows the work ability among people with thyroid disease, with the overall aim of evaluating whether work ability is impacted by benign thyroid diseases.[1] The importance of health-related quality of life (HRQL) in clinical research is progressively happening and accepted. In order to get valid results, the measurement properties of HRQL questionnaires must be thoroughly investigated. The effect of thyroid diseases on mental and physical aspects of a human being may affect the ability to perform activities at work and may affect the individual's expectation of participating in social roles, including employment.[2] A substantial proportion of thyroid patients experience limits themselves to a box of pre-defined activities, andrealize their general health as weakened and have social and emotional impairment.[3] This article scientifically clarifying the possible impact of thyroid diseases on work ability-can benefit the many people living with a thyroid disease.

**KEYWORDS:** health-related quality of life (HRQL)

## INTRODUCTION

Thyroid disorders are the ones that affect the thyroid gland. Thyroid gland can regulate numerous metabolic processes throughout the body. Different types of thyroid disorders affect either its structure or function. The thyroid usesiodine to produce thyroxin, also known as T4, is the primary hormone produced by the gland. After delivery via the bloodstream to the body's tissues, a small portion of the T4 released from the gland is converted to tri-iodo-thyronine (T3), which is the most active hormone.[4] The function of the thyroid gland is regulated by a feedback mechanism involving the brain. When thyroid hormone levels are low, the hypothalamus produces thyrotropin releasing hormone (TRH) that causes the pituitary gland to release thyroid stimulating hormone (TSH). TSH stimulates the production of more T4.thyroid gland is controlled by the pituitary gland and hypothalamus, disorders of these tissues can also affect thyroid function and cause thyroid problems.

Many of the thyroid diseases involving thyroid dysfunction are diagnosed in early adulthood and have a chronic course. Thyroid dysfunction has asignificant impact on somatic and psychiatric morbidity and both short- and long-term health-related quality of life isimpacted by a number of thyroid diseases. Although thyroid diseases are prevalent in the work force, the effect of thyroid disease on work function has received little attention.

### Societal AspectsOn Disability From Thyroid Diseases

As with all Social Security Disability (SSD) determinations, the focus is on how the condition impacts an individual's activeness in the work atmosphere. Hyperthyroidism and hypothyroidism can be treated and an individual can live a normal life. But thyroid conditions can impact the heart and vascular system. While thyroid conditions are listed under endocrine disorders by the Social Security Administration (SSA), it tends to be the impacts on other bodily systems that produce the conditions the impact an individual's daily life.[5] The SSA evaluates "thyroid-related changes in blood pressure and heart rate that cause arrhythmias or other cardiac dysfunction; thyroid-related weight loss; hypertensive cerebrovascular accidents (strokes); and cognitive limitations, mood disorders, and anxiety." This risk of disability is mostly driven by the rise in incidence of chronic diseases - often labeled the global burden of disease increasing the number of people with lifelong disabilities. Making a theoretical distinction between work ability and labor market exclusion is important in this regard, as some people might be able to retain the link to work, despite of a decreased capacity to work. With regard to thyroid diseases, the first step is to examine how the work

function can be affected.[6] Therefore a biomedical understanding of thyroid diseases is provided. Subsequently, it will be outlined whether the existent literature document that decreased work ability also. incurs risks of subsequent labor market exclusion among people with thyroid-diseases.

**Studies Concerning Quality Of Life And Approach Of Health Status**

Measuring quality and quantity of life has become a key part in the evaluation of the disease impact andtreatment or intervention effect. Thus, a substantial proportion of thyroid patients experience limitations in their usual activities perceives their general health as impaired and has social and emotional impairment.[7] Cognitive problems are also prevalent, as is fatigue. The overall quality of life and general health, limitations in usual activities as well as social and emotional problems are reduced by about half of patients.[8] Majority are fatigued and about one-third are anxious. Studies shows that, the quality of life of thyroid patients is substantially impaired over a wide range of aspects of HRQL in the untreated phase and continues to be so in many patients also in the long term. As it is a validated thyroid-specific HRQL questionnaire, studies revealing the relative importance of these various aspects to thyroid patients are lacking.[9]

**Psychosocial Aspects Of Living With Thyroid Disease**

Because of the severity, duration and course thyroid diseases are vary. By studying the biological and psychological processes that affect disability can help identify important factorsfor rehabilitation and management of the disability.[10] One of the main determinants in disease managementis psychological functioningand HRQOL outcomes whereas the physical mechanisms responsible for symptoms in thyroid diseases are well understood, the psychological factors affecting the disease and health quality outcomes are poorly understood.[11]

***Psychosocial problems with thyroid disease***

- Anxiety - a feeling of nervousness, heart racing, trembling, irritability, sleep difficulties
- Depression - low mood and difficulty enjoying things, tearfulness, loss of appetite and disturbed sleep
- Either over-activity or under-activity
- Mood swings - snappiness or short-temper which people often call 'moodiness'
- Sleeping difficulties

Mental health, or cognitive, problems that can occur, most often with thyroid under-activity, include:

- Difficulties with concentration
- Short-term memory lapses
- Lack of interest and mental alertness

older people worry about permanent memory failure (dementia) but in fact they are rarely as severe as seen in dementia.

**CONCLUSION**

In conclusion, the results showed that thyroid diseases can cause work disability – either as a decreased capacity to work, and/or as difficulties retaining the link to the labor market. Work ability items in self-reported quality of life questionnaires can be an important supplementary clinical tool to identify rehabilitation needs. People with Graves' orbitopathy have the highest risk of temporary and permanent exclusion from the labor market within the first year of diagnosis and in subsequent years.The disease experience of autoimmune hyper- and hypothyroidism plays an important role in the management of thyroid associated disability.Subjects with thyroid diseases report lower work ability than the general population. Compared with those with non-toxic goiter, people with Graves' disease and autoimmune hypothyroidism reported more thyroid associated work limitations along with limitations due to emotional difficulties and/or physical health.

**REFFERENCE**


1. Paul W. Ladenson, MD; Peter A. Singer, MD; Kenneth B. Ain, MD; NandalalBagchi, MD, PhD; S. Thomas Bigos, MD; Elliot G. Levy, MD; Steven A. Smith, MD; Gilbert H. Daniels, MD, American Thyroid Association Guideline for Detection of Thyroid Dysfunction,(Reprinted)ARCH INTERN MED, June 12, 2000; 160.
2. Douglas C. Bauer, MD; Bruce Ettinger, MD; Michael C. Nevitt, PhD; and Katie L. Stone, PhD, for the Study of Osteoporotic Fractures Research Group, Risk for Fracture in Women with Low Serum Levels of Thyroid-Stimulating Hormone, American college of physicians- American society of internal medicine 3rd April 2001; 134: 7.
3. Scott A.Hundahl,Blake Cady, Myles P.chunnigham ,Ernest mazzaferi, Rosemary, JuanRosai ,A Prospective Cohort Study of Thyroid Carcinoma in the U.S. Cancer 1stjuly 2000; 89(1): 202-216.
4. F. Pacini, L. Agate, R. Elisei, M. Capezzone, C. Ceccarelli, F. Lippi, E. Molinaro, And A. Pinchera, Outcome of Differentiated Thyroid Cancer with Detectable Serum Tg and Negative Diagnostic 131I Whole Body Scan: Comparison of Patients Treated with High 131I Activities Versus Untreated Patients The Journal of Clinical Endocrinology & Metabolism, 86(9): 4092–4097.
5. James V Parle, Patrick Maisonneuve, Michael C Sheppard, Peter Boyle, Jayne A Franklyn,Prediction of all-cause and cardiovascular mortality in elderly people from one low serum thyrotropin result: a 10-year cohort study, The Lancet, September 15, 2001; 358: 861-865.
6. Gay J. Canaris, MD, MSPH; Neil R. Manowitz, PhD; Gilbert Mayor, MD; E. Chester Ridgway, MD, The Colorado Thyroid Disease Prevalence Study, Arch Intern Med, 2000; 160: 526-534.
7. Jacqueline Jonklaas, Antonio C. Bianco, Andrew J. Bauer, Kenneth D. Burman, Anne R. Cappola, Francesco S. Celi, David S. Cooper, Brian W. Kim,

Robin P. Peeters, M. Sara Rosenthal, and Anna M. Sawka, Guidelines for the Treatment of Hypothyroidism, Thyroid Volume 24, Number 12, 2014 American Thyroid Association DOI: 10.1089/thy.2014.0028.

8. Mette Andersen Nexø, Work Disability among People with Benign Thyroid Diseases in Denmark, Graduate School of the Faculty of Health and Medical Sciences, University of Copenhagen, January 31, 2014.
9. Thyroid Gland Disorders Can Lead to The Need For Social Security Disability Posted on, December 12, 2014 Posted by Louis B. Lusk, Medicine net .com thyroid disorders.
10. Assessing Quality of Life in Clinical Trials - Methods and Practice, 2nd edn.,Eds, PM Fayers& RD Hays. Oxford: Oxford University Press, 2004.
11. Petra Mandincová (2012). Psychosocial Factors in Patients with Thyroid Disease, Thyroid and Parathyroid Diseases - New Insights into Some Old and Some New Issues, Dr. Laura Ward (Ed.), ISBN: 978-953-51-0221-2, InTech, Available from: http://www.intechopen.com/books/thyroid-and-parathyroid-diseases-new-insightsinto-some-old-and-some-new-issues/psychosocial-factors-in-patients-with-thyroid-disease.