Holistic Management of Thyroid Dysfunction

The Nurse's Role

Samten Williams, B.S.N., R.N.

Hypothyroidism, the most common form of thyroid disorder, affects one woman of ten over the age of 65.[1,2] This group of elders is not the only cohort that is affected by thyroid conditions. The 1999 United States Census estimate, which is the latest information available to date, indicates that 5.40 million American men and women in the general population are treated for thyroid dysfunction.[3] In addition, an estimated 13–20 million Americans may not know that they have thyroid conditions.[4–6]

People who suffer from thyroid dysfunction need health care providers who have a sophisticated understanding of the testing, diagnosis, and treatment of thyroid disorders. Conventionally, via assessment, education, and communication, nursing has served as a bridge between physicians and patients. This nursing role is crucial now; it is the front line of defense against a rise in thyroid dysfunction in the United States.

The Thyroid in Health and Dysfunction

The thyroid gland is the only tissue in the body that can absorb iodine, an element that is vital to hormonal chain reactions. Absorbed through a normal component of many foods, especially sea vegetables, iodized salt, thyroid medications, and supplements, iodine is combined with an amino acid, tyrosine, to form the basic building block that will become the thyroid hormones. This element/protein combination converts into the thyroid hormones, thyroxine (T_4), the stored form of the hormone, and triiodothyronine, (T_3), the active form of the hormone. The subscript numbers relate to the number of iodine molecules within each molecule of the hormone.[7–9]

The thyroid gland is self-regulated by a complex system of negative feedback loops that start with the secretion of thyrotropin-releasing hormone (TRH) in the hypothalamus. Once released, TRH communicates with the pituitary gland to release thyroid-stimulating hormone (TSH). It is this hormone, TSH, that communicates with the thyroid gland to produce T_4. The hormone T_3 is then produced from T_4 by the removal of an iodine molecule.[8,9] These thyroid hormones are responsible for cellular metabolism throughout the entire body.

Common thyroid disorders include hyperthyroidism and hypothyroidism. Caused by an overproduction of thyroid hormones, hyperthyroidism causes overactivity of body metabolism. Signs of an overactive thyroid may include an enlarged thyroid gland, generalized nervousness, weak muscles, weight loss, moist skin, hair loss, palpitations, heat intolerance, dyspnea, increased gastrointestional motility, insomnia, and fatigue.[10]

The most prevalent form of thyroid dysfunction, hypothyroidism, results from an inadequate production of thyroid hormone. Symptoms of an underactive thyroid may include puffiness in the hands and face, weight gain, a hoarse voice, dry skin, chronic constipation, depression, intolerance to cold, memory loss, muscle aches, bradycardia, and generalized fatigue.[11]

Thyroid conditions may also occur in pregnant women or in newborns, or as a result of cancer, or as a side-effect of radiation exposure. Thyroid disorders may also be caused by autoimmune conditions, such as Graves' disease and Hashimoto's thyroiditis. Family history may be a factor[12] and some researchers speculate that exposure to toxic substances in the environment may trigger an autoimmune response.

The Challenge of Diagnosing Thyroid Dysfunction

Confirming a diagnosis of hypothyroidism is a challenging process because the standard test used to check thyroid function, the TSH test, is not sensitive enough to diagnose many borderline sufferers.

Denis St. J. O'Reilly, a consultant clinical biochemist in the department of clinical biochemistry and clinic for thyroid diseases, at the Royal Infirmary, Glasgow, Scotland, has 20 years of research and clinical experience working with patients who have thyroid disorders. Addressing the chaos in the medical community regarding the diagnosis of hypothyroidism, Dr. St. J. O'Reilly calls for a reassessment of thyroid-function tests. This reassessment is needed for the following reasons:

(1) Changes in thyroxine and triiodothyronine levels during periods of systemic illness are not well-understood.
(2) False-positive and false-negative results can occur and should be considered when interpreting TSH levels.
(3) The secretion of TSH, or lack thereof, is influenced by many factors other than negative feedback inhibition by thyroxine or triiodothyronine.[12]

Jacob Teitelbaum, M.D., director of the Annapolis Research Center for Effective Fibromyalgia Syndrome/Chronic Fatigue

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Syndrome Therapies, Annapolis, Maryland, agrees with this last concern of Mr. St. J. O'Reilly's. Sharing a clinical scenario from his practice with patients who have myalgia, Dr. Teitelbaum says that, when hypothyroidism is caused by suppressed activity of the hypothalamus, the results of a TSH test can be normal.[11]

Richard Shames, M.D., on the adjunct faculty of Florida Atlantic University, and Karilee Halo Shames, R.N., Ph.D., an assistant professor of Nursing at Florida Atlantic University, are doctor/nurse, husband/wife, holistic health experts in the field of thyroid disorders. Their book and copy on their Web site (see box entitled Web Sites) describe their "Thyroid Power" program and they provide physician and nurse consultations for people with thyroid problems.[13,14]

The Shames' also recommend against relying too heavily on just the TSH test for determining a course of treatment. Karilee says: "Generally, doctors treat patients by telling them that this one tiny little test tells everything. This test doesn't even tell if there are antibodies present, which is a huge clue in letting people know if there is an autoimmune process going on."

In their work with patients who have thyroid conditions, the Shames' rely on "four pillars of diagnosis": (1) symptoms: (2) laboratory tests; (3) related illnesses; and (4) and family history.[14] "When you look at the whole picture, you get a better sense of what is going on with the whole person. We believe that doctors are mostly 'treating the lab tests' and not the person," says Karilee. "We do consults with people across the country and every day people say the same thing: 'My doctor is not listening. What can I do to get my doctor to listen to me and not just look at the lab results?'" says Richard.

The minimum amount of testing that the Shames' think is needed before a patient can be told, "it does not look like low thyroid [hormone] is causing your symptoms" include a TSH test, a basal temperature test, and a T_4 panel with total T_4, T_3 uptake, free thyroxine index, T_3 total, and antiperoxidase antibody.[13]

In August 2001, the Food and Drug Administration approved a home-test kit for measuring TSH levels. Because many experts regard the TSH test as an unreliable measurement, especially when used alone, such products raise concern about quality care. The potential for inaccurate diagnosing with the use of home-test kits is another reason, and opportunity, for nurses to assume a leading role in the public health profile of thyroid care.[15]

Louise Hay's Affirmations for Patients With Thyroid Conditions

Problem	Probable cause	New thought pattern
Thyroid dysfunction	Humiliation; a feeling of "I never get to do what I want to do. When is it going to be my turn?"	"I move beyond old limitations and now allow myself to express freely and creatively."
Goiter	Hatred for having something inflicted upon oneself; being a victim; feeling thwarted in life; and feeling unfulfilled	"I am the power and authority in my life. I am free to be me."
Hyperthyroidism	Rage at being left out of things	"I am at the center of life and I approve of myself and all that I see."
Hypothyroidism	Giving up; feeling hopelessly stifled	"I create a new life with new rules that totally support me."

Adapted from ref. 17.

The Role of Nursing

One arm of nursing's role in the thyroid dysfunction "epidemic" is helping physicians and patients understand testing and treatment protocols better. The other arm of nursing care in this epidemic is advocacy.

"We start with the premise that, at the present time, we do not have a health care system. We have a sick care system. What we need in order to have a real health care system is for people to advocate for themselves," says Karilee. She continues:

> And I would like to see nurses on the forefront of people advocating for patients. This is where nursing, especially holistic nursing, can really shine. Medicine is more focused on the curing, the elimination of symptoms, and treating disease. Nursing is supposed to be taking care of the whole rest of the spectrum from high-level wellness to critical illness. Yet, somehow, many nurses find them-

A direct care nurse has to communicate to a patient's physician the need for further testing.

Organizations

American Thyroid Association
6066 Leesburg Pike, Suite 650
Falls Church, VA 22041
Phone: (703) 998-8890
Fax: (703) 998-8893
Web site: www.thyroid.org
This association promotes scientific and public understanding of the biology of the thyroid gland and its disorders to improve methods for prevention, diagnosis, and management of thyroid dysfunction.

Thyroid Foundation of America
350 Ruth Sleeper Hall—RSL 350
350 Parkman Street
Boston, MA 02114
Phone: (617) 726-8500, inside the Boston area
(800) 832-8321, outside Boston area
Fax: (617) 726-4136
e-mail: tfa@clark.net
Web site: www.clark.net/pub/tfa/
This organization offers educational outreach and networking to providers and consumers regarding issues concerning thyroid disease education and management.

The Thyroid Society of America
7515 South Main Street, Suite 545
Houston, TX 77030
Phone: (800) THYROID
e-mail: help@the-thyroid-society.org
Web site: www.the-thyroid-society.org/
This organization offers educational materials, public health alerts, research opportunities, and a quarterly newsletter, *The Thyroid Connection*

selves trapped in a tiny little corner down at the end called critical care and death. That leaves no one guarding the public welfare, helping patients with health advocacy issues.

This is a huge gap in health care, Karilee says, because there are millions more people laboring under the burden of chronic, everyday discomfort and disease than there are people needing critical or near-death care.

Richard adds: "Nurses can take a little more medical history than the doctors have time to do or have the interest to do." He recommends thorough questioning regarding family history of thyroid and related diseases. If a patient complains of fatigue, depression, and weight gain, he recommends asking if the patient has ever considered a diagnosis of hypothyroidism. In short, when multisystems are affected and the clinical picture is convoluted, Richard advises "think thyroid."

Advanced practice nurses have direct control over ordering thyroid tests. A direct care nurse, however, has to communicate to a patient's physician the need for further testing. In that circumstance, Karilee advises that a nurse can say to a physician something like, "I notice that this patient has a number of diverse symptoms, all possibly suggesting a thyroid illness. Do you think it would be worth doing thyroid testing? I know that we checked the TSH. I wonder if another test might give us a little more clarity in terms of whether this person is struggling with an autoimmune response."

Richard also says that nurses can lead patients who look sluggish, sound sluggish, and complain of being cold and constipated all of the time to alternative and complementary resources without a doctor's diagnosis or prescription. He says: "Now, I do not know about in the hospitals, if nurses can start suggesting nutritional items but, outside of the hospital, they certainly can. A lot of thyroid treatment that works really well is nonprescription: vitamins, minerals, herbal medicines, homeopathy, glandulars, and essential fatty acids. The thyroid gland seems to function more optimally when the patient is [given supplements] with essential fatty acids with mixed amino acids."

For patients who are interested in taking over-the-counter thyroid glandulars, a nurse can recommend a regimen of two to four doses per day along with a multivitamin. Other dietary recommendations for patients with low thyroid hormone levels include:

- Eat breakfast because doing so sets a metabolic tone for the day.
- Lower fat intake.
- Limit cruciferous vegetables to one serving or less each day.
- Eat only well cooked soy products in one serving or less each day.[13]

The nursing perspective of helping someone boost his or her health is a very different perspective than the perspective of diagnosing or treating a disease. In addition, introducing these nursing interventions earlier in the disease process can spare a patient agony later on, says Karilee.

Metaphysical Considerations

The endocrine system lies symmetrically in and along the midline of the body. Because this is also where the

Afirmations on thyroid conditions may assist nurses as they energetically guide patients with thyroid conditions to empowerment.

chakra system is, the endocrine and chakra systems are metaphysically related.

The seven major chakras are located along the midline from the sacrum, known as the first chakra, to the crown of the head, known as the seventh chakra. These ascending numbers parallel an ascending consciousness. Whereas the root chakra is concerned with survival issues, the seventh chakra is concerned with universal, or cosmic consciousness and the unity of everything. Chakras in between the first and the seventh chakras correspond to the awakening stages along this ascending path.[16]

The fifth chakra, like the thyroid itself, is located at the base of the throat. This chakra has to do with decision-making issues of choice and with speaking truth.[16] Karilee says: "It is probably no coincidence that the thyroid is located at the base of the neck, our center for self-expression and speaking our truth. So many of us are challenged by this at this particular time in our evolution."

Because a majority of patients with thyroid problems are women, Karilee adds that " [i]t is a very important message that, in order to be whole and healthy, we must speak out. We must tell our truth. We must actualize ourselves and fully express [ourselves]. Each one of us is a special light in the world. We have made a commitment, an obligation, and I believe, we made a promise when we came here to express that light in our own special way[s]. Only then, will the world function as it needs to and be fulfilled."

Whenever we struggle to align the heart (the fourth chakra) with the mind (the sixth chakra of intuitive knowing), we stress the throat chakra. Given the myriad number of variables, and consequences, associated with making even daily decisions, it is easy to see why the throat chakra and thyroid gland are overworked.[16]

A prolonged disruption of this chakra can result in any number of clinical dysfunctions, including addiction. In the words of writer Jule Klotter, "[w]ithout the balance and joined power of head and heart, the will lacks a leader to follow; so, it goes out in search of something to pledge its energy to, taking the form of an addiction."[16]

Louise Hay, a well-known spiritual teacher and author based in Carlsbad, California, is another healer who has worked extensively on the metaphysical levels of disease manifestation. Her affirmations on thyroid conditions (see box entitled Louise Hay's Affirmations for Patients With Thyroid Conditions), may assist nurses as they energetically guide patients with thyroid conditions from the powerless, or victim, stance into one of empowerment.[17]

Via their 10-step program, the Shames' also look at the multiple layers of thyroid disease. As they put it, "[w]e take it one layer at a time so that, first, we look at some of the physical issues and then, when that is resolved, the patients move more into some of the mental, emotional, and spiritual issues. The physical issues can be quite complex even though these issues may look very simple. They are quite complex because everything is connected to everything else. We try to help people understand that they may have to do one system at a time and that is OK."

Web Sites

Drs. Richard and Karilee Shames
www.thyroidpower.com

This Web site features information about the Shames' program, *Thyroid POWER: 10 Steps to Total Health.*

MyThyroid.com
www.mythyroid.com

This site, maintained by Daniel J. Drucker, M.D., division of endocrinology, University of Toronto, Canada, University Health Network, Toronto General Hospital, provides extensive resources for many categories of thyroid conditions, including direct hyperlinks to scientific literature.

About.com on Thyroid Care
http://thyroid.about.com/cs/keythyroidsites/

Mary Shomon is the guide on this "about.com" site. It is is an excellent resource for every aspect of thyroid care.

Higher Rates of Mortality

A 10-year cohort study[18] in Great Britain demonstrates that subclinical levels of hyperthyroidism are associated with increased incidences of death from all causes, especially mortality attributed to circulatory and cardiac diseases.

Comorbidity factors appear to be involved with the diagnosis of hypothyroidism. This disease, in coexistence with a variety of other diseases, increases the severity of these other illnesses. For instance,

Nurses can play a major education and intervention role in stemming the tide of losses, both tangible and intangible, associated with thyroid disease.

Recommended Reading

Thyroid POWER: 10 Steps to Total Health
By Richard Shames, M.D., and Karilee Halo Shames, R.N., Ph.D.
New York, HarperResource, 2001

From Fatigued to Fantastic
By Jacob Teitelbaum, M.D.
New York, Avery, 2001

someone with a diagnosis of hypothyroidism and a related glandular condition, such as diabetes, can experience more complications and earlier death than someone without this dual diagnosis. In such cases, Richard says, "[t]he thyroid medicines do not work as well and you need more of the diabetes medicine." In addition, utilization of insulin is compromised when a person does not have the energy to exercise.

Low thyroid hormone conditions make an impact on the ability of the body to maintain and repair cells in a nonglandular disorder such as osteoarthritis. Often, when people with mild-to-moderate arthritis symptoms have their thyroids checked, receive treatment, and get their thyroids under control, it turns out that they did not have a mild or moderate arthritis after all, says Richard, noting, "[t]hat happens in my practice a lot; it happens in other doctors' practices."

He adds: "What we are hoping to tell nurses about is the need for heightened awareness, a greater lookout, for concomitant low thyroid [hormone levels] as an easily treatable cofactor that worsens mortality and morbidity unnecessarily."

A startling example from the Shames' practice shows that thyroid disorders can kill patients. A new client came to their office the day after her baby died. Suffering from hypothyroidism, the woman was utterly exhausted in the daytime and she fell asleep. The baby wandered off, fell into water behind the family's home and drowned. "Here is an example of what can happen when you have low thyroid [hormone levels] and you cannot meet the demands of your life. It is a havoc that most people do not even think about. When some people go on rampages, especially the women who kill their babies, I wonder, how much of that could be thyroid [related]? There is no one looking at that," says Karilee.

As the thyroid epidemic continues to grow, nurses from the bedside to advanced practice settings can play a major education and intervention role in stemming the tide of losses, both tangible and intangible, associated with thyroid disease. □

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