CAHN Non-Alcoholic Fatty Liver Disease (NAFLD) Competencies

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Canadian Association of Hepatology Nurses
CAHN NAFLD Competencies

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Non-Alcoholic Fatty Liver Disease Competencies

The Canadian Association of Hepatology Nurses (CAHN) approved the Hepatology Nursing Standards in February 2007. The Standards provide a comprehensive framework for the evaluation of professional ethical hepatology nursing practice.

Subsequently, a CAHN working group began to develop competency documents that describe core competencies specific to particular liver diseases/conditions. This Non-Alcoholic Fatty Liver Disease Competencies (NAFLD) document is the fourth created. The NAFLD competencies pertain to adults and do not include specifics for pediatrics. Liver transplant will be referenced.

Purpose

The Canadian Association of Hepatology Nurses HCC Competencies document provides a mechanism for nurses to examine their practice, determine their learning needs and ultimately improve their knowledge, skill and judgment related to NAFLD care.

Introduction

Non-alcoholic liver disease is the fastest rising liver condition in Canada resulting in liver transplant. Over 50% of Canadians are overweight, with up to 23% of obese individuals are at risk of developing fatty liver disease, while 75% of obese individuals are at risk of developing simple fatty liver.\(^1\) Risk factors for NAFLD include but are not limited to: metabolic syndrome, obesity, diabetes, hyperlipidemia.

NAFLD is a spectrum of disease, ranging from simple biochemical or imaging changes to the development of steatohepatitis resulting in cirrhosis. It is important to identify individuals with hepatic fibrosis. To date, there are no pharmaceutical therapy to prevent and treat NAFLD, however lifestyle modification and control of risk factors may lead to improvement in both the biochemical profile and fibrosis. Nurses play a vital role in the education and management of NAFLD in collaboration with other health care professionals.

The CAHN NAFLD Competencies document describes a full range of NAFLD nursing competencies without identifying educational preparation or specific experience needed for any of the competencies. The document articulates expectations that the regulatory bodies have for Registered Nurses involved in specialty areas of practice. This document can be used by nurses for ongoing self-assessments and by nurses preparing to transition NAFLD into their practice, education, administration and/or research. These competencies are meant to assist nurses with identification of learning needs appropriate for their particular practice context.
Embedded in the competencies are the assumptions that nurses’ advocate not only for the individual but also at the policy and/or systems level and that nurses engage in collaborative practice.

As this document reflects current knowledge, CAHN will review and revise it at least every three years. The next review will take place by November 2019.

NAFLD Competency Statements

The competencies are presented within four sections: fundamental knowledge, nursing assessment, interventions and evaluation. Each section contains several competency statements with accompanying knowledge expectations. The nursing assessment section is framed within the twelve determinants of health.

1. Fundamental Knowledge Competencies

1.1. Understand the epidemiology (prevalence and incidence) of NAFLD
   - Host and demographic characteristics
   - Associated lifestyle factors
   - Associated medical conditions

1.2. Define the at-risk population for NAFLD
   - Awareness of risk factors associated with the development of NAFLD e.g., Type 2 diabetes, dyslipidemia, polycystic ovarian syndrome, sleep apnea, metabolic syndrome, obesity. (Do & Kim May 2016)

1.3. Describe pathophysiology and natural history of NAFLD
   - Understand the progression of NAFLD
   - Understand the histopathology of steatosis versus Non-alcoholic steatohepatitis (NASH)
   - Understand evolution of fibrosis (progression from steatosis to NASH)
   - Understand the relationship of cryptogenic cirrhosis and NAFLD
   - Understand the relationship of the quantity of alcohol consumption as it relates to NAFLD
   - Awareness that the most common cause of death is cardiovascular disease

2. Nursing Assessment Competencies

2.1. Describe the importance of income and social status in NAFLD prevention, care and treatment.
   - The role of income as it relates to food security e.g., employed, social assistance, retired
   - The impact of barriers such as inadequate housing facilities, lack of nutrition and lack of affordable transportation on client health
• Strategies clients can use to access services such as weight management programs, diabetes management programs, access to recreational facilities, and nutrition counselling (e.g.- free dietitian reviews at grocery stores)

2.2. Describe the importance and impact of the client’s current social network
• Motivation assistance for lifestyle modification
• Quality of life
• Access and retention in care
• Emotional and practical (eg transportation to appointments) support from family and friends

2.3. Explain how the client’s level of literacy can impact health
• Assess the client’s understanding of information e.g., reading, writing, expression and comprehension
• Use of principles of adult learning e.g., language that is appropriate to the client’s education, literacy level and ethno-cultural context
• Facilitate client access to information e.g., peer support groups, internet

2.4. Explain the impact of employment/working conditions
• Impact of sedentary jobs
• Impact of shift work
• Availability of healthy food choices e.g., packing a lunch versus fast food

2.5. Understand the influence of social environments
• Importance and impact of social networks e.g. community groups
• Access to community resources regarding healthy lifestyles e.g. YMCA
• Impact of stigma associated with underlying disease on health behavior and human rights e.g. cirrhosis, morbid obesity
• Impact of peer pressure on lifestyle choices
• Impact of media influence on lifestyle choices

2.6. Understand the importance of physical environments
• Community and individual safety
• Contribution of the physical environment

2.7. Understand the importance of personal health practices and coping skills
• Optimize liver health e.g., balanced nutrition, physical activity, alcohol abstinence
• Choices can be affected by socio-economic environments e.g., self-care, advocacy and coping mechanisms
• Self-esteem, self-worth and resilience can affect health practices
• Use of complementary and alternative (CAM) medicine e.g., self-hypnosis, pseudo-scientific therapies (Garcinia Cambogia) homeopathic products, traditional indigenous practices

2.8. Explain the importance of healthy child development
• Experiences in early life that can affect lifestyle choices and behaviours in adulthood e.g., breastfeeding, childhood obesity, alcohol consumption, food choices, family activities, history of abuse
• Role of technology in decreasing physical and social interaction
• Modelling of healthy behaviours e.g. physical activity

2.9. Describe the role of biology and genetic endowment
• Role of genetics
• Importance of family history
• Identification of at-risk individuals e.g., diabetes, dyslipidemia, metabolic syndrome, obesity

2.10. Describe the impact of health services on NAFLD
• Importance of client self-advocacy
• Access to appropriate monitoring and management of co-morbidities
• Nurse’s role in collaborative client care
• Local referral and follow-up process for NAFLD
• Effect of stigma and discrimination on service access and utilization

2.11. Understand the role of gender
• Recognize that gender differences in likelihood of diagnosis, natural history of disease and disease progression e.g. male gender has a higher prevalence, relationship of transgender health

2.12. Understand the impact of culture
• Implications related to NAFLD e.g., alcohol as part of lifestyle, ethnicity
• Need to be culturally competent e.g., avoid actions that diminish, demean or disempower the cultural identity and well-being of an individual
• Impact of provider’s values and beliefs on relationships and client decision-making

3. A: Intervention Competencies (Client Focused)
3.1 Describe health promotion activities associated with NAFLD
• Education of at-risk populations
  • Balance nutrition and exercise to maintain an ideal body weight
  • Avoid alcohol, tobacco, illicit substances, solvents and chemical irritants
  • Medication reconciliation and education
  • Impact of prescribed medications and weight gain/ hepatotoxicity
  • Role of micronutrients e.g., Vitamin D
  • Management of co-morbid conditions e.g., diabetes control, dyslipidemia
  • Immunizations to prevent co-morbid diseases e.g., hepatitis A/B, pneumovax, influenza

3.11. Understand harm reduction philosophy, strategies and their effectiveness
3.11.1. Harm reduction approaches and their effectiveness e.g., healthy food choices, weight management, exercise/activity

3.12. Explain what the nurse needs to know about NAFLD assessment

3.12.1. Importance of education for at risk individuals due to asymptomatic nature of presentation
3.12.2. Knowledge of patients’ understanding of their diagnosis of NAFLD
3.12.3. The impact of co-morbid disease management
3.12.4. Tests used to diagnose and monitor those with NAFLD e.g., fibroscan, MRE, fibrotest, liver biopsy, serological markers (Renelus & Foster, 2016)
3.12.5. Understand the importance of risk for other cancers and HCC in NAFLD
3.12.6. Signs and symptoms of progression from compensated to decompensated liver function

3.13. Describe the management of disease progression of NAFLD

3.13.1. Signs and symptoms of progression e.g., jaundice, muscle wasting, ascites
3.13.2. Screening, and surveillance for those with fibrosis e.g., worsening of portal hypertension, other cancers & HCC
3.13.3. How and when to access additional services e.g., specialty health care services

3.14. Describe therapeutics and interventions for NAFLD

- Education related to lifestyle modification e.g., weight loss, avoidance of alcohol
- Role of insulin resistance modifiers and oxidative stress reducers
- Awareness of upcoming medications e.g., anti-fibrotic agents (Akhter, Pulla, & Said, 2016)
- Awareness of advancements in therapy e.g., fecal transplantation

B: Intervention Competencies (System Focused)

3.15. Recognize methods to effect policy change

3.15.1. Advocate for partnerships with non-profit and community organizations
3.15.2. Governments’ role in health policy change e.g., resource allocation and access
3.15.3. Nurses’ role in advocating for health system change e.g., improved access for care and treatment, participation in advocacy organizations such as Canadian Association of Hepatology Nurses
3.15.4. Nursing activities that can influence policy change e.g., participation in policy development and systems advocacy

3.16. Advocate for ongoing health care provider education and learning opportunities

- Advocate for NAFLD education and learning opportunities
• Participate in professional development activities related to NAFLD

3.17. Describe the importance of collaboration
• Identify and collaborate with other providers and support systems e.g., dietitians, personal trainers, other disease specialists, community support groups
• Identify and participate in local, provincial, national and international health and social service initiatives

4. Evaluation Competencies

4.11. Evaluate client responses, clinical outcome, cost effectiveness, and ethical considerations of interventions
• Evaluate the effect of interventions and progress towards targeted outcomes
• Share and discuss outcomes with appropriate health care professionals e.g., primary health care provider, health authority administration

4.12. Participate in the discovery and the dissemination of new knowledge in NAFLD
  4.12.1. Share leading practices/discoveries in your HCC practice
  4.12.2. Participate in research and/or disseminate findings e.g., journal club

4.13. Practice self-assessment
  4.13.1. Evaluate continuing competency in NAFLD practice and knowledge
References:

http://www.liver.ca/

