Care CEUs

Continuing Education for Nursing Home Administrators

Activities & Therapeutic Recreation

Introduction

Recreational therapy is becoming an essential part of resident care. Therefore, health care administrators of nursing homes and assisted living facilities should be familiar with the fundamental aspects of recreational therapy, and the potential benefits of recreational therapy. With that in mind, this course reviews the fundamental aspects of recreational therapy, while providing insight into recreational therapy activities, and the potential benefits of recreational therapy. This course also highlights guidelines that may be used by health care administrators to develop recreational therapy programs that meet the specific needs of their health care organizations.

Section 1: Recreational Therapy

A 72-year-old female resident of a nursing home takes part in a yoga class in the morning. That afternoon the resident works on an art project with some friends, and in the early evening the resident joins a meditation class. Later that evening, the resident receives a phone call from her son. The resident tells her son that she feels great, and is so happy that she can interact with her friends, and take part in rewarding activities.

The scenario presented above is fictional - however, the end result is a very real possibility through recreational therapy. Often residents of nursing homes and assisted living facilities report that their health, overall well-being, and quality of life is improved after participating in recreational therapy programs, which is why recreational therapy is becoming an essential part of resident care. Due to the increasing importance of recreational therapy, health care administrators of nursing homes and assisted living facilities should be familiar with the fundamental aspects of recreational therapy. This section of the course reviews the fundamental aspects of recreational therapy, while providing insight into the potential benefits of recreational therapy. The information found within this section of the course was derived from materials provided by the American Therapeutic Recreation Association unless, otherwise, specified (American Therapeutic Recreation Association, 2022).

What is recreational therapy?

Recreational therapy, also known as therapeutic recreation, may refer to a systematic process that utilizes recreation and other activity-based interventions to address the

assessed needs of individuals with illnesses and/or disabling conditions, as a means to psychological and physical health, recovery, and well-being.

Health care administrators should note the following: recreational therapy may be provided by a recreational therapist; a recreational therapist may refer to a therapist who treats and helps maintain the physical, mental, and emotional well-being of patients by seeking to reduce depression, stress, and anxiety; recover basic motor functioning and reasoning abilities; build confidence; and socialize effectively.

What is the purpose of recreational therapy?

The purpose of recreational therapy is to improve or maintain physical, cognitive, social, emotional, and spiritual functioning in order to facilitate improved health, overall well-being, and quality of life.

What does recreational therapy include?

Recreational therapy includes providing treatment services and recreation activities to individuals using a variety of techniques including: arts and crafts, animals, sports, games, dance, movement, drama, music, and community outings.

What are the standards of practice for recreational therapists?

The 12 major standards of practice for recreational therapists may be found below.

- **Assessment** - the recreational therapist should receive and respond, consistent with standards, regulatory requirements and policies for the setting, to requests, including referrals and physician orders, for assessment and treatment; and conduct an individualized assessment to collect systematic, comprehensive and accurate data necessary to determine a course of action and subsequent individualized treatment plan.
- **Treatment planning** - the recreational therapist should plan and develop an individualized treatment plan that identifies goals and evidence-based treatment intervention strategies.
- **Plan implementation** - the recreational therapist implements an individualized treatment plan, using evidence-based practice, to restore, remediate or rehabilitate functional abilities in order to improve and maintain independence

and quality of life as well as to reduce or eliminate activity limitations and restrictions to participation in life situations caused by an illness or disabling condition (note: implementation of the treatment plan by a recreational therapist should be consistent with the overall or interdisciplinary patient/resident treatment program).

- **Re-assessment and evaluation** - the recreational therapist should systematically re-assess, evaluate, and compare the patient's progress relative to the individualized treatment plan; the treatment plan should be revised based upon changes in the interventions, diagnosis, and patient responses.
- **Discharge/Transition Planning** - the recreational therapist should develop a discharge plan in collaboration with the patient, family, significant others, and treatment team members in order to discharge the patient or to continue treatment and aftercare, as needed.
- **Prevention, safety planning, and risk management** - the recreational therapist should systematically plan to improve patient and staff safety by planning for prevention and reduction of risks in order to prevent injury and reduce potential or actual harm.
- **Ethical conduct** - the recreational therapist should adhere to the American Therapeutic Recreation Association's Code of Ethics in providing patient treatment and care that are humane and professional.
- **Written plan of operation** - recreational therapy treatment and care is governed by a written plan of operation that is based upon the American Therapeutic Recreation Association's Standards for the Practice of Recreational Therapy, state and federal laws and regulations, requirements of regulatory and accrediting agencies, payers and employer's policies and procedures as appropriate.
- **Staff qualifications and competency assessment** - recreational therapy staff should meet the defined qualifications, demonstrate competency, maintain appropriate credentials and have opportunities for competency development.
- **Quality improvement** - there exists objective and systematic processes for continuously improving patient safety and for identifying opportunities to improve recreational therapy treatment and care and patient outcomes.

- **Resource management** - recreational therapy treatment and care should be provided in an effective and efficient manner that reflects the reasonable and appropriate use of resources.
- **Program evaluation and research** - recreational therapy staff should engage in routine, systematic program evaluation and research for the purpose of determining the appropriateness and effectiveness of recreational therapy treatment and care provided.

What are the ethic principles for recreational therapists?

The major ethic principles for recreational therapists include: beneficence, non-maleficence, autonomy, justice, fidelity, veracity, informed consent, confidentiality and privacy, competence, and compliance with laws and regulations. Specific information regarding the aforementioned ethic principles for recreational therapists may be found below.

- **Beneficence** - recreational therapists must treat patients in an ethical manner by actively making efforts to provide for their well-being by maximizing possible benefits and relieving, lessening, or minimizing possible harm.
- **Non-maleficence** - recreational therapists have an obligation to use their knowledge, skills, abilities, and judgment to help patients while respecting their decisions and protecting them from harm.
- **Autonomy** - recreational therapists have a duty to preserve and protect the right of each patient to make his or her own choices; each patient must be given the opportunity to determine his or her own course of action in accordance with a plan freely chosen. In the case of patients who are unable to exercise autonomy with regard to their care, recreational therapists have the duty to respect the decisions of their qualified legal representative.
- **Justice** - recreational therapists are responsible for ensuring that patients are served fairly and that there is equity in the distribution of services; patients should receive services without regard to race, color, creed, gender, sexual orientation, age, disease/disability, social, and financial status.
- **Fidelity** - recreational therapists have an obligation, first and foremost, to be loyal, faithful, and meet commitments made to patients receiving services;

recreational therapists have a secondary obligation to health care organizations, colleagues, agencies, and the profession.

- **Veracity** - recreational therapists have an obligation to be truthful and honest.
- **Informed consent** - recreational therapists must provide services characterized by mutual respect and shared decision making. Recreational therapists are responsible for providing each patient receiving service with information regarding the services, benefits, outcomes, length of treatment, expected activities, risk and limitations, including the professional's training and credentials. Informed consent should be obtained when information needed to make a reasoned decision is provided by the recreational therapists to competent patients seeking services who then decide whether or not to accept the treatment.
- **Confidentiality and privacy** - recreational therapists have a duty to disclose all relevant information to patients seeking services; they also have a corresponding duty not to disclose private information to third parties. If a situation arises that requires disclosure of confidential information about an individual (i.e., to protect the individual's welfare or the interest of others) the recreational therapist has the responsibility to inform the individual served of the circumstances (note: recreational therapists must follow the laws included in the Health Insurance Portability and Accountability Act of 1996 [HIPAA], when applicable; the Health Insurance Portability and Accountability Act of 1996 [HIPAA] may refer to the specific federal regulations or laws which provide provisions for safeguarding medical information).
- **Competence** - recreational therapists have the responsibility to maintain and improve their knowledge related to the profession and demonstrate current, competent practice to patients served. In addition, recreational therapists have an obligation to maintain their credentials.
- **Compliance with laws and regulations** - recreational therapists are responsible for complying with local, state and federal laws, regulations and the American Therapeutic Recreation Association's policies governing the profession of Recreational Therapy.

Can recreational therapy help health care facilities meet the requirements of Title 42 Part 483?

Yes, recreational therapy can help health care facilities meet the requirements of Title 42 Part 483. Title 42 Part 483 includes laws that protect the rights of residents of a health care facility.

Under Title 42 Part 483, residents have the right to maintain and improve their quality of life; recreational therapy can be a means for residents to maintain and improve their quality of life. Specific requirements from Title 42 Part 483 that pertain to quality of life may be found below. The information found below was derived from materials provided by the U.S. government (Code of Federal Regulations, 2022).

- Quality of life is a fundamental principle that applies to all care and services provided to facility residents. Each resident must receive and the facility must provide the necessary care and services to attain or maintain the highest practicable physical, mental, and psychosocial well-being, consistent with the resident's comprehensive assessment and plan of care.
- A health care facility must provide care and services for the following activities of daily living: hygiene, mobility, elimination, dining, and communication, including speech, language, and other functional communication systems.
- A health care facility must provide, based on the comprehensive assessment and care plan and the preferences of each resident, an ongoing program to support residents in their choice of activities, both facility-sponsored group and individual activities and independent activities, designed to meet the interests of and support the physical, mental, and psychosocial well-being of each resident, encouraging both independence and interaction in the community.
- The activities program must be directed by a qualified professional who is a qualified therapeutic recreation specialist or an activities professional who is licensed or registered, if applicable, by the State in which practicing; and is eligible for certification as a therapeutic recreation specialist or as an activities professional by a recognized accrediting body; or has two years of experience in a social or recreational program within the last five years, one of which was full-time in a therapeutic activities program; or is a qualified occupational therapist or occupational therapy assistant; or has completed a training course approved by the State.

Can recreational therapy help residents avoid social isolation?

Yes, recreational therapy can help residents avoid social isolation. Specific information regarding social isolation may be found below. The information found below was derived from materials provided by the Centers for Disease Control and Prevention (CDC) (Centers for Disease Control and Prevention [CDC], 2021).

- Social isolation may refer to a lack of social connections.
- Social isolation can lead to loneliness in some individuals, while others can feel lonely without being socially isolated.
- Loneliness may refer to the feeling of being alone, regardless of the amount of social contact.
- A report from the National Academies of Sciences, Engineering, and Medicine (NASEM) indicates that more than one-third of adults aged 45 and older feel lonely, and nearly one-fourth of adults aged 65 and older are considered to be socially isolated.
- Research presented by the CDC suggests the following: social isolation significantly increases a person's risk of premature death from all causes; social isolation is associated with about a 50% percent increased risk of dementia; poor social relationships (characterized by social isolation or loneliness) is associated with a 29% increased risk of heart disease and a 32% increased risk of stroke; loneliness is associated with higher rates of depression, anxiety, and suicide; loneliness among heart failure patients was associated with a nearly four times increased risk of death.
- Social isolation can lead to emotional pain. Emotional pain can activate the same stress responses in the body as physical pain, and can lead to chronic inflammation and reduced immunity.
- Social isolation can lead to suicidal ideation; suicidal ideation may refer to thoughts of suicide and/or thoughts of planning suicide; suicidal ideation may lead to a suicide attempt and/or suicide; a suicide attempt may refer to a non-fatal self-directed and potentially injurious behavior with any intent to die as a result of the behavior (note: a suicide attempt may or may not result in injury); suicide may refer to a death caused by injuring oneself with the intent to die.

Can recreational therapy help residents engage in physical activity?

Yes, recreational therapy can help residents engage in physical activity (note: physical activity may refer to any voluntary bodily movement produced by skeletal muscles that requires energy expenditure). The potential health benefits of physical activity may be found below. The information found below was derived from materials provided by the CDC (CDC, 2022).

- Physical activity can improve brain health. Some of the benefits of physical activity occur right after a session of moderate-to-vigorous physical activity; benefits include improved thinking or cognition and reduced short-term feelings of anxiety for adults and older adults; regular physical activity can help individuals keep their thinking, learning, and judgment skills sharp; it can also reduce the risk of depression and anxiety (note: the term older adult may refer to an individual 65 years or older).
- Physical activity can help individuals sleep better and avoid sleep deprivation (note: sleep deprivation may refer to a lack of sufficient sleep).
- Physical activity can help individuals lose weight and maintain a healthy weight.
- Heart disease and stroke are two leading causes of death in the U. S. Getting at least 150 minutes a week of moderate physical activity can lower the risk for these diseases. Individuals can reduce their risk even further with more physical activity; regular physical activity can also lower blood pressure and improve cholesterol levels.
- Regular physical activity can reduce the risk of developing type 2 diabetes and metabolic syndrome (note: metabolic syndrome may refer to a syndrome characterized by a combination of too much fat around the waist, high blood pressure, low high-density lipoproteins (HDL) cholesterol, high triglycerides, or high blood sugar).
- Being physically active lowers the risk for developing several cancers. Adults and older adults who participate in greater amounts of physical activity have reduced risks of developing cancers of the: bladder, breast, colon (proximal and distal), endometrium, esophagus (adenocarcinoma), kidney, lung, and stomach (cardia and non-cardia adenocarcinoma).

- Muscle-strengthening activities, like lifting weights, can help individuals increase or maintain muscle mass and strength, which is important for older adults who experience reduced muscle mass and muscle strength with aging (note: slowly increasing the amount of weight and number of repetitions when engaging in muscle strengthening activities can help individuals increase or maintain muscle mass and strength).
- Regular physical activity can help older adults prevent functional limitation (note: functional limitation may refer to the inability to perform everyday activities [e.g., walking; climbing stairs]).
- Regular physical activity can help older adults prevent falls and injuries from falls. Health care administrators should note that falls may lead to broken bones, like wrist, arm, ankle, and hip fractures; head injuries, which can be extremely serious, especially if the older adult is taking blood thinners; fear, which may cause older adults to limit their daily activities (note: physical activities such as aerobic, muscle strengthening, and balance training can help older adults prevent falls and injuries from falls).
- Regular physical activity can help individuals manage existing chronic conditions and disabilities. For example, regular physical activity can lower the risk of nerve damage; reduce pain and improve function, mood, and quality of life; help support daily living activities and independence for older adults.
- Health care administrators should note the following: an estimated 110,000 deaths per year could be prevented in the U.S. if adults ages 40 and older increased their moderate-to-vigorous physical activity by even 10 minutes more per day.

Can recreational therapy help improve the care of residents with dementia?

Research presented by the CDC suggests that recreational therapy can help improve the mental, physical, emotional, and social domains of dementia through meaningful, goal-directed interventions that impact the overall care of patients/residents. Specific information regarding dementia may be found below. The information found below was derived from materials provided by the CDC (CDC, 2019).

- Dementia may refer to a cluster of symptoms centered around an inability to remember, think clearly, and/or make decisions.
- Dementia is not a normal part of aging.
- Risk factors that may contribute to dementia include the following: age, genetics, poor heart health, and traumatic brain injuries.
- Signs of dementia may include the following: getting lost in a familiar area; forgetting the names of close family and friends; not being able to complete tasks independently.
- Symptoms of dementia may include the following: problems with memory; problems with attention; an inability to communicate effectively; a diminished ability to reason and problem solve; poor judgment.
- Fronto-temporal dementia is a type of dementia which primarily affects the regions of the brain associated with planning, social behavior, and language perception. Fronto-temporal dementia is associated with a younger age of onset, when compared to other types of dementia. Health care administrators should note that the behavioral presentation of fronto-temporal dementia may include: inappropriate swearing, impulsive decisions and purchases, repetitive actions, changes in personality, changes in eating habits, as well as inappropriate sexual behavior (ISB) and deficits in self-care.
- Lewy body dementia is a type of dementia characterized by the presence of Lewy bodies in the cerebral cortex and the brain stem (note: the cerebral cortex is a part of the brain responsible for thought processing, memory, perception, and movement; the brain stem is a part of the brain that is responsible for basic body functions and the coordination of movements). Lewy bodies may refer to proteins that may form in the brain. Individuals suffering from Lewy body dementia may experience memory loss, movement problems, balance problems, stiffness, trembling, changes in alertness, daytime sleepiness, confusion, and/or staring spells.
- Vascular dementia is a type of dementia that may result from strokes and/or other issues that affect blood flow to the brain. Vascular dementia may also result from diabetes, high blood pressure, and high cholesterol. Specific symptoms of vascular dementia include the following: problems with memory, planning, making decisions, attention, focus, and concentration, as well as confusion.

Health care administrators should note that vascular dementia can be progressive in nature.

- Individuals may experience mixed dementia (i.e., more than one type of dementia at once). Mixed dementia can be prevalent in individuals aged 80 and older. Mixed dementia may be difficult to identify because the symptoms of one type of dementia may be more prominent or may overlap with symptoms of another type of dementia. Health care administrators should note that mixed dementia progression may be faster than with one type of dementia.
- Dementia may be associated with Parkinson's disease. Parkinson's disease may refer to a progressive disorder that affects individuals' movement.
- Alzheimer's disease may refer to an irreversible, progressive brain disorder that slowly destroys individuals' memory, thinking skills, and ability to carry out simple tasks. Health care administrators should note the following: Alzheimer's disease is the most common cause of dementia among older adults; Alzheimer's disease is not a normal part of aging.

Can recreational therapy help improve longevity for older adults?

Research presented by the National Institute on Aging indicates that the type of leisure activities included in recreational therapy can impact the longevity of older adults. Specific information regarding the aforementioned research may be found below. The information found below was derived from materials provided by the National Institute on Aging (National Institute on Aging, 2022).

- To understand whether older adults benefit from various types of exercises, National Institute on Aging researchers analyzed data from more than 272,000 participants in a national health survey.
- The participants were first surveyed in the mid-1990s. When they responded to a follow-up questionnaire between 2004 and 2005, their average age was 70.
- The study captured information on health conditions, habits like smoking and alcohol use, socioeconomic status, and diet. It also recorded participation in seven different recreational activities, such as: running or jogging, cycling (outdoors or on a stationary bike), swimming, other aerobic exercise (such as aerobics class or using exercise machines), racquet sports, golf, and walking.

- The researchers examined the risk of death during the 12 years of the study; they compared reductions in the risk of death provided by different levels and different types of physical activity.
- Among older adults who exercised regularly, walking was the most common activity; followed by other aerobic exercise, cycling, golf, swimming, running, and racquet sports. Older adults who participated in any combination of these activities but did not meet the recommendations in the physical activity guidelines had a 5% lower risk of death during the study then those who were inactive.
- Those older adults considered active, with at least the amount of recommended aerobic activity, had a 13% lower risk of death compared with inactive participants; participation in sports and running was associated with the greatest risk reductions, but all activities provided benefit.
- The risk of death continued to decrease with additional activity beyond the recommended levels.
- Running was associated with the greatest risk reduction for death from cancer; sports were associated with the greatest risk reduction for death from heart disease; individuals who got the recommended amount of exercise, regardless of activity, had a reduced risk of death from both cancer and heart disease.
- The study found that all types of recreational activities that get people moving are associated with greater longevity.

What should health care administrators and health care professionals consider when developing recreational therapy programs?

In the current health care climate, health care administrators and health care professionals should consider infection control recommendations when developing and/or expanding recreational therapy programs. Health care administrators and health care professionals should utilize such recommendations to help prevent the transmission of infectious diseases, such as coronavirus disease 2019 (COVID-19), when residents are engaging in recreational therapy programs (note: coronavirus disease 2019 [COVID-19] may refer to a respiratory illness that can spread from person to person, which is caused by a virus known as the severe acute respiratory

syndrome coronavirus 2 [SARS-CoV-2]). Specific infection control recommendations may be found below. The information found below was derived from materials provided by the U.S. government (Code of Federal Regulations, 2022).

- A health care facility should establish and maintain an infection prevention and control program designed to provide a safe, sanitary, and comfortable environment and to help prevent the development and transmission of communicable diseases and infections.
- A health care facility should establish an infection prevention and control program (IPCP) that includes, at a minimum, the following elements: a system for preventing, identifying, reporting, investigating, and controlling infections and communicable diseases for all residents, staff, volunteers, visitors, and other individuals providing services under a contractual arrangement based upon the facility assessment conducted; written standards, policies, and procedures for the program; an antibiotic stewardship program that includes antibiotic use protocols and a system to monitor antibiotic use; a system for recording incidents identified under the facility's IPCP and the corrective actions taken by the facility.
- A health care facility should designate one or more individuals as the infection preventionists (IPs) who are responsible for the facility's IPCP.
- The individual designated as the IP, or at least one of the individuals if there is more than one IP, must be a member of the facility's quality assessment and assurance committee and report to the committee on the IPCP on a regular basis.
- A health care facility should develop policies and procedures to ensure that each resident or the resident's representative receives education regarding the benefits and potential side effects of influenza immunization; each resident should be offered an influenza immunization October 1 through March 31 annually, unless the immunization is medically contraindicated or the resident has already been immunized during the aforementioned time period; the resident or the resident's representative has the opportunity to refuse immunization; and the resident's medical record includes relevant documentation.
- A health care facility should develop policies and procedures to ensure that each resident or the resident's representative receives education regarding the benefits and potential side effects of the immunization; each resident is offered a pneumococcal immunization, unless the immunization is medically

contraindicated or the resident has already been immunized; the resident or the resident's representative has the opportunity to refuse immunization; and the resident's medical record includes relevant documentation.

- A health care facility should develop and implement policies and procedures to ensure all of the following: when coronavirus disease 2019 (COVID-19) vaccine is available to the facility, each resident and staff member is offered the COVID-19 vaccine unless the immunization is medically contraindicated or the resident or staff member has already been immunized; before offering COVID-19 vaccine, all staff members are provided with education regarding the benefits and risks and potential side effects associated with the vaccine; before offering COVID-19 vaccine, each resident or the resident representative receives education regarding the benefits and risks and potential side effects associated with the COVID-19 vaccine; in situations where COVID-19 vaccination requires multiple doses, the resident, resident representative, or staff member is provided with current information regarding those additional doses, including any changes in the benefits or risks and potential side effects associated with the COVID-19 vaccine, before requesting consent for administration of any additional doses; the resident or resident representative, has the opportunity to accept or refuse a COVID-19 vaccine, and change their decision; and relevant documentation.
- A health care facility should test residents and facility staff, including individuals providing services under arrangement and volunteers, for COVID-19.
- A health care facility should develop and implement policies and procedures to ensure that all staff are fully vaccinated for COVID-19 (note: staff are considered fully vaccinated if it has been two weeks or more since they completed a primary vaccination series for COVID-19; the completion of a primary vaccination series for COVID-19 is defined as the administration of a single-dose vaccine, or the administration of all required doses of a multi-dose vaccine).
- Regardless of clinical responsibility or resident contact, the COVID-19 policies and procedures should apply to the following facility staff, who provide any care, treatment, or other services for the facility and/or its residents: facility employees; licensed practitioners; students, trainees, and volunteers; and individuals who provide care, treatment, or other services for the facility and/or its residents, under contract or by other arrangement.

- The COVID-19 policies and procedures should include, at a minimum, the following components: a process for ensuring all staff (except for those staff who have pending requests for, or who have been granted, exemptions to the vaccination requirements, or those staff for whom COVID-19 vaccination must be temporarily delayed, as recommended by the CDC, due to clinical precautions and considerations) have received, at a minimum, a single-dose COVID-19 vaccine, or the first dose of the primary vaccination series for a multi-dose COVID-19 vaccine prior to staff providing any care, treatment, or other services for the facility and/or its residents; a process for ensuring that all staff are fully vaccinated for COVID-19, except for those staff who have been granted exemptions to the vaccination requirements, or those staff for whom COVID-19 vaccination must be temporarily delayed, as recommended by the CDC, due to clinical precautions and considerations; a process for ensuring the implementation of additional precautions, intended to mitigate the transmission and spread of COVID-19, for all staff who are not fully vaccinated for COVID-19; a process for tracking and securely documenting the COVID-19 vaccination status of all staff; a process for tracking and securely documenting the COVID-19 vaccination status of any staff who have obtained any booster doses as recommended by the CDC; a process by which staff may request an exemption from the staff COVID-19 vaccination requirements based on an applicable Federal law; a process for tracking and securely documenting information provided by those staff who have requested, and for whom the facility has granted, an exemption from the staff COVID-19 vaccination requirements; a process for ensuring that all documentation, which confirms recognized clinical contraindications to COVID-19 vaccines and which supports staff requests for medical exemptions from vaccination, has been signed and dated by a licensed practitioner, who is not the individual requesting the exemption, and who is acting within their respective scope of practice as defined by, and in accordance with, all applicable State and local laws; a process for ensuring the tracking and secure documentation of the vaccination status of staff for whom COVID-19 vaccination must be temporarily delayed, as recommended by the CDC, due to clinical precautions and considerations, including, but not limited to, individuals with acute illness secondary to COVID-19, and individuals who received monoclonal antibodies or convalescent plasma for COVID-19 treatment; and contingency plans for staff who are not fully vaccinated for COVID-19.

Section 1 Summary

Recreational therapy can impact resident care, while improving resident quality of life. Health care administrators should ensure their health care organizations offer recreational therapy programs. Health care administrators should also engage residents to identify popular recreational therapy activities, and recreational therapy activities that residents may want to include in such programs. Finally, health care administrators should work to maintain recreational therapy programs to help optimize resident care.

Section 1 Key Concepts

- Recreational therapy may be provided by a recreational therapist.
- The purpose of recreational therapy is to improve or maintain physical, cognitive, social, emotional, and spiritual functioning in order to facilitate improved health, overall well-being, and quality of life.
- Recreational therapy includes providing treatment services and recreation activities to individuals using a variety of techniques including: arts and crafts, animals, sports, games, dance, movement, drama, music, and community outings.
- Recreational therapy can help health care facilities meet the requirements of Title 42 Part 483.
- Recreational therapy can help residents avoid social isolation.
- Recreational therapy can help residents engage in physical activity.
- Research presented by the CDC suggests that recreational therapy can help improve the mental, physical, emotional, and social domains of dementia through meaningful, goal-directed interventions that impact the overall care of patients/ residents.
- Research presented by the National Institute on Aging indicates that the type of leisure activities included in recreational therapy can impact the longevity of older adults.
- Health care administrators and health care professionals should consider infection control recommendations when developing and/or expanding recreational therapy programs.

Section 1 Key Terms

Recreational therapy (also known as therapeutic recreation) - a systematic process that utilizes recreation and other activity-based interventions to address the assessed needs of individuals with illnesses and/or disabling conditions, as a means to psychological and physical health, recovery, and well-being

Recreational therapist - a therapist who treats and helps maintain the physical, mental, and emotional well-being of patients by seeking to reduce depression, stress, and anxiety; recover basic motor functioning and reasoning abilities; build confidence; and socialize effectively

Health Insurance Portability and Accountability Act of 1996 (HIPAA) - the specific federal regulations or laws which provide provisions for safeguarding medical information

Social isolation - a lack of social connections

Loneliness - the feeling of being alone, regardless of the amount of social contact

Suicidal ideation - thoughts of suicide and/or thoughts of planning suicide

Suicide attempt - a non-fatal self-directed and potentially injurious behavior with any intent to die as a result of the behavior

Suicide - a death caused by injuring oneself with the intent to die

Physical activity - any voluntary bodily movement produced by skeletal muscles that requires energy expenditure

Older adult - an individual 65 years or older

Sleep deprivation - a lack of sufficient sleep

Metabolic syndrome - a syndrome characterized by a combination of too much fat around the waist, high blood pressure, low high-density lipoproteins (HDL) cholesterol, high triglycerides, or high blood sugar

Functional limitation - the inability to perform everyday activities

Dementia - a cluster of symptoms centered around an inability to remember, think clearly, and/or make decisions

Fronto-temporal dementia - a type of dementia which primarily affects the regions of the brain associated with planning, social behavior, and language perception

Lewy body dementia - a type of dementia characterized by the presence of Lewy bodies in the cerebral cortex and the brain stem

Cerebral cortex - a part of the brain responsible for thought processing, memory, perception, and movement

Brain stem - a part of the brain that is responsible for basic body functions and the coordination of movements

Lewy bodies - proteins that may form in the brain

Vascular dementia - a type of dementia that may result from strokes and/or other issues that affect blood flow to the brain

Parkinson's disease - a progressive disorder that affects individuals' movement

Alzheimer's disease - an irreversible, progressive brain disorder that slowly destroys individuals' memory, thinking skills, and ability to carry out simple tasks

Coronavirus disease 2019 (COVID-19) - a respiratory illness that can spread from person to person, which is caused by a virus known as the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)

Section 1 Personal Reflection Question

How can residents benefit from recreational therapy?

Section 2: Recreational Therapy Activities

This section of the course reviews specific activities that may be included in recreational therapy programs. The information found within this section of the course was derived from materials provided by the National Institutes of Health unless, otherwise, specified (National Institutes of Health, 2022).

Tai chi

- Tai chi may refer to a practice that involves a series of slow gentle movements and physical postures, a meditative state of mind, and controlled breathing.
- Tai chi originated as an ancient martial art in China. Over the years, it has become more focused on health promotion and rehabilitation.
- Tai chi can help residents engage in physical activity, as well as reduce stress, tension, social isolation, and loneliness.
- Tai chi may be beneficial in improving balance and preventing falls in older adults and people with Parkinson's disease.
- A 2020 summary of three reviews that included some relevant studies found that tai chi may help improve balance and reduce falls in people with Parkinson's disease.
- A 2021 review analyzed three studies of tai chi's effect on falls in people with Parkinson's disease. The three studies included a total of 273 participants who did 60-minute tai chi sessions two to three times per week for 12 weeks to six months. The analysis indicated that tai chi had a significant positive effect on reducing falls when compared with both no intervention and different interventions like resistance training and stretching.
- Research suggests that tai chi may be helpful in reducing pain in people with low-back pain, fibromyalgia, and knee osteoarthritis.
- A 2019 review evaluated 10 studies with 959 participants who had low-back pain. The duration of the tai chi interventions ranged from two to 28 weeks, with sessions done two to six times weekly and the majority lasting from 40 to 60 minutes; the authors drew a conclusion that tai chi alone or in addition to physical therapy may decrease pain intensity and improve everyday function (e.g., the ability to carry groceries, climb stairs, walk, and bathe and dress oneself).
- A 2019 review of six studies (657 participants) found that tai chi was beneficial for reducing pain scores in people with fibromyalgia. Tai chi also helped to improve sleep quality, relieve fatigue, reduce depression, and increase quality of life. The tai chi interventions typically involved 60-minute sessions done one to three times weekly for 12 weeks.

- The updated 2019 guidelines from the American College of Rheumatology and the Arthritis Foundation strongly recommend tai chi for the management of knee osteoarthritis.
- A 2021 review of 16 studies involving 986 participants found evidence of low-to-moderate strength that tai chi was beneficial for treating and managing knee osteoarthritis. The tai chi interventions usually involved 30- to 60-minute sessions done two to four times weekly for 10 to 52 weeks. Participants practicing tai chi experienced improvements in pain as well as stiffness, physical function (e.g., walking, standing, rising from a bed, and getting in and out of a car), balance, and physiological and psychological health).
- A 2021 review, which included 11 studies and 603 participants, found that tai chi had a positive effect on improving walking function and posture control in older adults with knee osteoarthritis.
- A 2021 review of 23 studies (1,663 participants) concluded that tai chi may help to improve exercise capacity, lung function, and quality of life in people with chronic obstructive pulmonary disease (COPD). Tai chi was better than no treatment in all areas evaluated, and it was better than breathing and walking exercises in some of the areas. The duration and frequency of the tai chi sessions varied among the included studies, and the tai chi interventions lasted from one to 12 months.
- A 2021 review looked at 26 studies of tai chi involving 1,672 participants with Parkinson's disease. Tai chi sessions lasted from 30 to 90 minutes and were done over five to 24 weeks, with the total number of tai chi sessions ranging from 10 to 48, depending on the study. Most of the studies showed that tai chi was more helpful than no intervention and had a positive effect that was similar to that of other therapies like dancing, aerobic exercise, resistance training, and stretching.
- Recent research shows that tai chi improves levels of fasting blood glucose and hemoglobin A1c (HbA1c) in people with type 2 diabetes and may improve quality of life factors.
- A 2018 review of 14 studies (798 participants) found that tai chi was better than no exercise for managing levels of fasting blood glucose and HbA1c in adults with type 2 diabetes. Tai chi may have advantages over other aerobic exercises like walking and dancing for reducing HbA1c.

- A 2019 review of 23 studies (1,235 participants) found that tai chi was beneficial in lowering fasting blood glucose, HbA1c, insulin resistance, body mass index, and total cholesterol in people with type 2 diabetes. Tai chi was also found to improve quality of life factors such as physical function, bodily pain, and social function. Tai chi sessions were 15 to 120 minutes long and were done two to 14 times weekly for four to 24 weeks.

- A 2020 review looked at 28 studies (2,937 participants) and found that tai chi was better at lowering systolic and diastolic blood pressure than health education/no treatment, other exercises, or antihypertensive drugs. The time duration, weekly frequency, and total weeks of tai chi sessions varied among the included studies.

- A 2020 review evaluated the psychological well-being of adults who were 60 years of age and older and who had cardiovascular disease (diseases of the heart and blood vessels). The review, which included 15 studies of 1,853 adults, found that tai chi was better than usual care or other types of exercise (e.g., walking, strength training) for improving quality of life and psychological well-being. The length of tai chi interventions ranged from six to 52 weeks, with an average of 36 tai chi sessions over the duration of the studies. The specific improvements varied depending on the type of cardiovascular disease, however, when compared to usual care or other exercises, tai chi participants with coronary heart disease had better mental health quality of life, those with chronic heart failure experienced less depression and psychological distress, and those with high blood pressure had better physical health quality of life.

- A 2018 review of 13 studies (972 participants) found that tai chi led to large and significant improvements in aerobic capacity among people with coronary heart disease when compared to active interventions (e.g., walking, stretching) and nonactive interventions (e.g., usual medical care). The tai chi interventions involved 30- to 90-minute sessions done one to seven times weekly for 12 weeks to 12 months.

- A 2019 review of nine studies (656 participants) looked at the use of tai chi in the early stages of dementia in older adults (average age of 78). The short-term effect of tai chi on the overall cognition of people with mild cognitive impairment was found to be beneficial and similar to that seen with other types of exercise. The results of the studies suggested that tai chi done three times a week for 30 to 60 minutes per session for at least three months had a positive impact on some cognitive functions.

- A 2020 review of 13 studies (869 participants) found that tai chi had a small positive effect on the quality of life and depressive symptoms of older adults with chronic conditions who lived in community settings. The tai chi interventions involved 40- to 90-minute sessions done one to four times per week for 10 to 24 weeks.
- Tai chi appears to be promising in improving some cancer-related symptoms.
- A 2018 review included 22 studies of 1,283 people with different types of cancer. Three to 12 weeks of tai chi were associated with significant improvement in fatigue, sleep difficulty, depression, and overall quality of life.
- A 2020 review included 16 studies of 1,268 participants with breast cancer. Most of the studies conducted in the United States involved 60-minute tai chi sessions done two to three times weekly for 12 weeks. Most of the studies conducted in China involved 20-minute tai chi sessions done twice daily for unknown total durations. Results showed that tai chi was significantly better than conventional interventions at improving quality of life at three months. When used with conventional supportive care interventions, tai chi was found to significantly relieve fatigue symptoms.
- A 2021 study evaluated a 10-week tai chi intervention in older adults during the COVID-19 pandemic as a possible way to help improve their mental and physical health (note: participants maintained a physical distance of four meters from each other during the study). The 30 participants were between the ages of 60 and 78, had not previously practiced tai chi, and had been doing fewer than two days a week of structured physical activity before the study. Half of the participants were randomly assigned to partake in two 60-minute group tai chi classes each week. The results of the study suggested that tai chi is an effective intervention that can be used under pandemic conditions to improve the psychoemotional state, cognition, and motor learning in older adults (note: the term psychoemotional state may refer to a state characterized by elevated levels of depression, paranoia, obsessions, compulsions, and/or anxiety).
- A 2021 narrative review suggested that tai chi could possibly help people coping with COVID-19 and counteract the negative effect of physical inactivity, sedentary behavior, and mental disorders in the general population during the COVID-19 pandemic. The authors explained that tai chi can be practiced easily and safely at home, in isolation, or in groups, making it useful during pandemic conditions.

- Tai chi appears to be safe. A 2019 review of 24 studies (1,794 participants) found that the frequency of adverse events was similar for people doing tai chi, another active intervention, or no intervention. The review also found that in studies of people with heart failure, people in tai chi groups experienced fewer serious adverse events than people receiving no intervention. None of the serious adverse events reported in the 24 studies were thought to be caused by either tai chi or the control conditions (active interventions or no intervention). The adverse events that were reported as related to tai chi or other active interventions were minor, such as musculoskeletal aches and pain.

Yoga

Yoga may refer to a practice characterized by physical postures, breathing techniques, and meditation. Specific information regarding yoga may be found below. The information found below was derived from materials provided by the National Institutes of Health (National Institutes of Health, 2021).

- Yoga is an ancient and complex practice, rooted in Indian philosophy. It began as a spiritual practice but became popular as a way of promoting physical and mental well-being.
- Yoga practiced in the United States typically emphasizes physical postures (asanas), breathing techniques (pranayama), and meditation (dyana).
- Yoga can help residents engage in physical activity, as well as reduce stress, tension, social isolation, and loneliness.
- Research suggests that yoga may: help improve general wellness by relieving stress, supporting good health habits, and improving mental/emotional health, sleep, and balance; relieve low-back pain and neck pain, and possibly pain from tension-type headaches and knee osteoarthritis; help people who are overweight or obese lose weight; help people quit smoking; help people manage anxiety or depressive symptoms associated with difficult life situations; relieve menopause symptoms; help people with chronic diseases manage their symptoms and improve their quality of life.
- Studies suggest possible benefits of yoga for several aspects of wellness, including: stress management, mental/emotional health, promoting healthy eating/activity habits, sleep, and balance.

- A 2020 review of 12 recent studies (672 total participants) of a variety of types of yoga for stress management in healthy adults found beneficial effects of yoga on measures of perceived stress in all of the studies.
- In a recent review of 14 studies (involving 1,084 total participants) that assessed the effects of yoga on positive aspects of mental health, most found evidence of benefits, such as improvements in resilience or general mental well-being.
- A 2018 survey of adults (involving 1,820 participants) showed that practicing yoga regularly was associated with better eating and physical activity habits. In interviews, people who took the survey said they thought yoga supported healthier habits through greater mindfulness, motivation to participate in other forms of activity, and eating healthier. In addition, the yoga community itself was characterized as a social circle that encouraged connection, where healthy eating was commonplace.
- Yoga was shown to be helpful for sleep in several studies of cancer patients, women with sleep problems, and older adults and in individual studies of other population groups, including people with arthritis and women with menopause symptoms.
- Studies of yoga for low-back pain and neck pain had promising results, and yoga is among the options that the American College of Physicians recommends for first-line treatment of chronic low-back pain. Preliminary evidence suggests that yoga may also be helpful for tension headaches and knee osteoarthritis pain.
- A 2020 report by the Agency for Health Care Research and Quality evaluated 10 studies of yoga for low-back pain (involving 1,520 total participants) and found that yoga improved pain and function in both the short term (one to six months) and intermediate term (six to 12 months).
- The American College of Physicians recommends using nondrug methods for the initial treatment of chronic low-back pain. Yoga is one of several suggested nondrug approaches.
- A 2019 review of 10 studies (686 total participants) found that practicing yoga reduced both the intensity of neck pain and disability related to neck pain and improved range of motion in the neck.

- A 2020 review of six studies (240 participants) of yoga for chronic or episodic headaches (tension-type headache or migraine) found evidence of reductions in headache frequency, headache duration, and pain intensity.
- A 2019 review of nine studies (640 total participants) showed that yoga may be helpful for improving pain, function, and stiffness in people with osteoarthritis of the knee.
- A 2019 guideline from the American College of Rheumatology and the Arthritis Foundation conditionally recommended yoga for patients with knee osteoarthritis.
- Research suggests that yoga can help individuals lose weight, as well as maintain a healthy weight.
- A 2019 NCCIH-funded study with 227 participants compared yoga classes with general wellness classes as additions to a conventional once-weekly counseling program. The people in the yoga group were 37 percent more likely to quit smoking by the end of the eight-week program.
- A study published in 2020 showed a reduction in cigarette cravings after a single yoga session, as compared with a wellness education session.
- In a recent review of 23 studies (involving 1,272 participants) of people with depressive symptoms (although not necessarily diagnosed with depression), yoga was helpful in reducing symptoms in 14 of the studies.
- A 2018 evaluation of seven studies (284 participants) of yoga for people with post-traumatic stress disorder (PTSD) found evidence of a possible benefit.
- A 2021 study of Kundalini yoga for generalized anxiety (GAD) (226 participants, 155 of whom completed the study), supported by NCCIH, found that Kundalini yoga improved symptoms (note: Kundalini yoga may refer to a type of yoga that involves chanting, singing, breathing exercises, and repetitive poses).
- The Kundalini yoga study was a randomized, controlled, single-blind clinical trial; the participants, adults 18 years or older who had a primary diagnosis of GAD, were assigned to one of three interventions for 12 weeks; each intervention involved twelve two-hour small group sessions along with 20 minutes of daily homework; the interventions were Kundalini yoga, cognitive behavioral therapy (CBT), and a control stress education intervention that involved lectures on the

effects of stress and lifestyle behaviors and the importance of exercise and diet; Kundalini yoga included physical postures, breathing techniques, relaxation exercises, and meditation practices (note: cognitive behavioral therapy [CBT] may refer to a type of talk therapy that aims to reduce the symptoms of various types of mental health conditions).

- At the end of the 12 weeks and again six months later, participants in the Kundalini yoga study, were evaluated to see whether they responded to treatment, which was defined as a Clinical Global Impression-Improvement Scale score of much or very much improved; at 12 weeks, 54 percent of Kundalini yoga participants and 71 percent of CBT participants responded to treatment, but only 33 percent of stress education participants had; response rates were significantly higher in the Kundalini yoga and CBT groups than in the stress education group; at the six-month follow-up, 63 percent of the Kundalini yoga group, 77 percent of the CBT group, and 48 percent of the stress education group showed a response; the difference between the CBT and stress education groups was significant; the researchers concluded that the available scientific literature and this study's data support that Kundalini yoga may be helpful for GAD.
- A 2018 evaluation of 13 studies (more than 1,300 participants) of yoga for menopause symptoms found that yoga reduced physical symptoms, such as hot flashes, as well as psychological symptoms, such as anxiety or depression.
- In a 2018 evaluation of 138 studies on the use of yoga in patients with various types of cancer (10,660 total participants), most of the studies found that yoga improved patients' physical and psychological symptoms and quality of life.
- A 2017 review of 24 studies of women with breast cancer (more than 2,100 total participants) found evidence that yoga helped reduce fatigue and sleep disturbances and improved health-related quality of life.
- A 2018 analysis of 10 studies (502 total participants) found evidence that yoga can improve physical ability (such as being able to walk a defined distance in a defined time), lung function, and quality of life in people with COPD.
- A 2019 review of seven studies (396 participants) of yoga interventions for people with HIV/AIDS found that yoga was a promising intervention for stress management.

- Yoga is generally considered a safe form of physical activity for healthy people when performed properly, under the guidance of a qualified instructor. However, as with other forms of physical activity, injuries can occur. The most common injuries are sprains and strains, and the parts of the body most commonly injured are the knee or lower leg. Serious injuries are rare. The risk of injury associated with yoga is lower than that for higher impact physical activities.
- To reduce the chances of getting hurt while practicing yoga individuals should: practice yoga under the guidance of a qualified instructor (note: practicing yoga without supervision is associated with increased risks); avoid extreme practices such as headstands, shoulder stands, the lotus position, and forceful breathing; be aware that hot yoga has special risks related to overheating and dehydration; older adults, and people with health conditions should talk with their health care professionals and the yoga instructor about their individual needs (note: individuals may need to avoid or modify some yoga poses and practices; some of the health conditions that may call for modifications in yoga include preexisting injuries, such as knee or hip injuries, lumbar spine disease, severe high blood pressure, balance issues, and glaucoma).

Qigong

- Qigong may refer to a practice that uses exercises to optimize energy within the body, mind, and spirit, with the goal of improving and maintaining health and overall well-being.
- Qigong, pronounced “chi gong,” was developed in China thousands of years ago as part of traditional Chinese medicine.
- Qigong has both psychological and physical components and involves the regulation of the mind, breath, and body’s movement and posture.
- In most forms of qigong: breath is slow, long, and deep; breath patterns may switch from abdominal breathing to breathing combined with speech sounds; movements are typically gentle and smooth, aimed for relaxation; mind regulation includes focusing one’s attention and visualization.
- Dynamic (active) qigong techniques primarily focus on body movements, especially movements of the whole body or arms and legs.

- Meditative (passive) qigong techniques can be practiced in any posture that can be maintained over time and involve breath and mind exercises, with almost no body movement.
- Qigong can help residents engage in physical activity, as well as reduce stress, tension, social isolation, and loneliness.
- Qigong may help reduce pain in older adult populations.
- Frequent and consistent qigong practice may be helpful for people with fibromyalgia in areas like pain, sleep, and physical and mental function.
- A 2020 review looked at two small studies of qigong's effects on people with fibromyalgia. The first study, which included 89 people, found that six months of qigong practice helped with pain, sleep quality, and physical and mental function. The second study, which included 57 people, found that seven weeks of qigong practice resulted in decreased pain, less inconvenience from fibromyalgia, decreased anxiety, and improved quality of life.
- A 2017 review with four studies on qigong for fibromyalgia (201 participants) found that the amount of time people practice qigong made a difference. People with fibromyalgia who did diligent qigong practice, 30 to 40 minutes daily for six to eight weeks, experienced consistent benefits in pain, sleep, and physical and mental function. These benefits were still seen four to six months after the studies were completed.
- Research suggests that using qigong as a complementary therapy may help with depression, anxiety, lung function, and physical function in people with COPD.
- A 2020 review of 31 studies (3,045 participants) looked at the effect of adding qigong to a primary treatment, such as drug therapy and respiratory training. The review found that adding qigong to the primary treatment helped improve lung function, quality of life, and ability to exercise in people with COPD.
- A 2019 review of six studies (415 participants) found that qigong reduced self-ratings of depression and anxiety in people with COPD when qigong was combined with standard treatment. The qigong programs lasted from two to six months.
- Another 2019 review found that three months of yoga, qigong, or tai chi helped improve lung function and the capacity for walking and physical activity in people

with COPD. Twelve of the 18 studies focused on qigong and tai chi, either alone or combined. The programs ranged from six weeks to six months and included 30- to 90-minute sessions two to seven times a week.

- A 2020 review of seven studies (325 participants) suggested that qigong-based exercise helped improve movement, walking ability, and balance in people with Parkinson's disease. The amount of improvement seen in movement and walking ability was similar to that seen with other forms of exercise, such as walking and using a stationary exercise bike. Improvements in balance, however, were greater with qigong than with the other types of exercise. The qigong exercise programs ranged from eight to 48 weeks, with 30- to 120-minute sessions two to seven times per week.
- A 2021 review of seven studies (370 participants) suggested that qigong may help to reduce systolic and diastolic blood pressure.
- A 2019 review considered 13 studies with a total of 1,340 community-dwelling older adults with chronic disease and found that qigong had a significant positive effect on quality of life.
- A 2019 survey of reviews found sufficient evidence to support qigong for balance training and fall prevention.
- Clinical practice guidelines published in 2017 by the Ottawa Panel (an international group of researcher methods experts who develop evidence-based clinical practice guidelines) recommend using a tai chi, qigong program for improving quality of life in people with knee osteoarthritis. The program includes 60-minute classes twice a week for eight weeks.
- A 2019 review included seven studies on qigong, with a total of 915 people with different types of cancer. Most of the studies involved 60-minute sessions two to three times a week for six to 12 weeks. Qigong significantly improved symptoms of fatigue and sleep quality.
- A 2017 review that looked at only qigong included 22 studies of 1,751 people with various cancers. The review found that using qigong was promising for managing physical and psychological symptoms related to cancer and its treatment.
- A 2020 review that included 13 studies of 893 people with mild cognitive impairment suggested that qigong improved cognition and memory after three

and six months of practice. The qigong programs included 40- to 60-minute sessions three to six times per week.

- A 2019 review looked at the effects of meditation, tai chi, qigong, and yoga on cognition in adults 60 years of age and older. The review included nine studies of qigong (about 650 participants). Qigong was found to improve cognition and memory.
- A 2020 review of four studies involving 593 individuals with substance use disorders found that qigong appeared to have a more positive effect on reducing anxiety when compared to no treatment. The review also found that qigong led to significant improvement in depressive symptoms when compared to no treatment.
- A 2021 review looked at complementary therapies and COVID-19 and two studies on qigong, totaling 49 participants. The studies suggested that qigong improved physical activity, perceptions of difficulty breathing, quality of life, and some measures of inflammation in the body.
- Qigong appears to be a safe form of activity. Many studies indicated no negative side effects in people practicing qigong, including people with chronic diseases and older adults. A review of adults with neck pain included two studies that found that qigong and other exercise groups had similar side effects, which occurred in less than 10 percent of the adults and included muscle pain, soreness, and headache.

Meditation and Mindfulness-Based Practices

- Meditation may refer to a variety of practices that focus on mind and body integration and are used to calm the mind and enhance overall well-being.
- Some types of meditation involve maintaining mental focus on a particular sensation, such as breathing, a sound, a visual image, or a mantra, which is a repeated word or phrase. Other forms of meditation include the practice of mindfulness, which involves maintaining attention or awareness on the present moment without making judgments.
- Programs that teach meditation or mindfulness may combine the practices with other activities (e.g., mindfulness-based stress reduction is a program that teaches mindful meditation and includes discussion sessions and other strategies

to help people apply what they learned to stressful experiences; mindfulness-based cognitive therapy is a form of therapy that integrates mindfulness practices with aspects of cognitive behavioral therapy).

- Some research suggests that meditation and mindfulness practices may affect the functioning or structure of the brain. Studies used various methods of measuring brain activity to look for measurable differences in the brains of people engaged in mindfulness-based practices. Other studies theorized that training in meditation and mindfulness practices can change brain activity.
- Engaging in meditation and mindfulness-based practices may help residents reduce stress, tension, social isolation, and loneliness.
- In a U.S. survey, 1.9 percent of 34,525 adults reported that they practiced mindfulness meditation in the past 12 months. Among those responders who practiced mindfulness meditation exclusively, 73 percent reported that they meditated for their general wellness and to prevent diseases, and most of them (approximately 92 percent) reported that they meditated to relax or reduce stress. In more than half of the responses, a desire for better sleep was a reason for practicing mindfulness meditation.
- Meditation and mindfulness practices may have a variety of health benefits and may help people improve the quality of their lives.
- A 2018 NCCIH-supported analysis of 142 groups of participants with diagnosed psychiatric disorders such as anxiety or depression examined mindfulness meditation approaches compared with no treatment and with established evidence-based treatments such as cognitive behavioral therapy and antidepressant medications. The analysis included more than 12,000 participants, and the researchers found that for treating anxiety and depression, mindfulness-based approaches were better than no treatment at all, and they worked as well as the evidence-based therapies.
- A 2020 review of 14 studies (including more than 1,100 participants) examined the effects of mindfulness practices on the blood pressure of people who had health conditions such as hypertension, diabetes, or cancer. The analysis showed that for people with these health conditions, practicing mindfulness-based stress reduction was associated with a significant reduction in blood pressure.

- A 2020 report by the Agency for Health Care Research and Quality concluded that mindfulness-based stress reduction was associated with short-term (less than six months) improvement in low-back pain.
- A 2020 NCCIH-supported analysis of five studies of adults using opioids for acute or chronic pain (with a total of 514 participants) found that meditation practices were strongly associated with pain reduction.
- Acute pain, such as pain from surgery, traumatic injuries, or childbirth, occurs suddenly and lasts only a short time. A 2020 analysis of 19 studies examined the effects of mindfulness-based therapies for acute pain and found evidence that the therapies could improve a person's tolerance for pain.
- A 2017 analysis of 30 studies (2,561 participants) found that mindfulness meditation was more effective at decreasing chronic pain than several other forms of treatment.
- A 2019 comparison of treatments for chronic pain did an overall analysis of 11 studies (697 participants) that evaluated cognitive behavioral therapy, which is the usual psychological intervention for chronic pain; four studies (280 participants) that evaluated mindfulness-based stress reduction; and one study (341 participants) of both therapies. The comparison found that both approaches were more effective at reducing pain intensity than no treatment.
- A 2019 analysis of 18 studies (1,654 total participants) found that mindfulness meditation practices improved sleep quality more than education-based treatments.
- Several clinical trials investigated if mindfulness-based approaches such as mindfulness-based relapse prevention (MBRP) might help people recover from substance use disorders. These approaches are used to help people increase their awareness of the thoughts and feelings that trigger cravings and learn ways to reduce their automatic reactions to those cravings.
- A 2018 review of 37 studies (3,531 total participants) evaluated the effectiveness of several mindfulness-based approaches to substance use disorder treatment and found that they significantly decreased participants' craving levels. The mindfulness-based practices were slightly better than other therapies at promoting abstinence from substance use.

- A 2018 review supported by NCCIH examined the effects of meditation (in two studies, 179 total participants) and other mindfulness-based practices (in six studies, 332 total participants) on symptoms of PTSD. Study participants included veterans, nurses, and people who experienced interpersonal violence. Six of the eight studies reported that participants had a reduction of PTSD symptoms after receiving some form of mindfulness-based treatment.
- A 2018 clinical trial funded by the U.S. Department of Defense compared the effectiveness of meditation, health education, and prolonged exposure therapy, a widely accepted treatment for PTSD recommended by the American Psychological Association (note: prolonged exposure therapy may refer to a type of therapy that helps individuals reduce their PTSD symptoms by teaching them to gradually remember traumatic memories, feelings, and situations). The study included 203 veterans with PTSD as a result of their active military service. The results of the study showed that meditation was as effective as prolonged exposure therapy at reducing PTSD symptoms and depression, and it was more effective than PTSD health education. The veterans who used meditation also showed improvement in mood and overall quality of life.
- A 2019 analysis of 29 studies (3,274 total participants) of mindfulness-based practices showed that use of mindfulness practices among people with cancer significantly reduced psychological distress, fatigue, sleep disturbance, pain, and symptoms of anxiety and depression.
- A 2017 review of 15 studies (560 total participants) looked at the effects of mindfulness-based practices on the mental and physical health of adults with obesity or who were overweight. The review found that these practices were very effective methods for managing eating behaviors. Mindfulness-based approaches also helped participants manage symptoms of anxiety and depression.
- A 2018 analysis of 19 studies (1,160 total participants) found that mindfulness programs helped people lose weight and manage eating-related behaviors such as binge, emotional, and restrained eating. The results of the analysis showed that treatment programs, such as mindfulness-based stress reduction and mindfulness-based cognitive therapy, that combine formal meditation and mindfulness practices with informal mindfulness exercises were especially effective methods for losing weight and managing eating.
- Evidence suggests that meditation and mindfulness-based practices are safe.

Acupuncture

- Acupuncture is not a traditional recreational therapy activity - however, more and more health care organizations are including acupuncture in recreational therapy programs and other related care programs.
- Acupuncture may refer to a form of therapy characterized by the use of needles that are inserted into the body in order to treat health problems.
- Acupuncture is a traditional Chinese medicine that has been in practice for over 2,500 years.
- According to the World Health Organization (WHO), acupuncture is used in 103 of 129 countries that reported data.
- In the United States, data from the National Health Interview Survey showed a 50 percent increase in the number of acupuncture users between 2002 and 2012.
- Research shows that acupuncture may be helpful for several pain conditions, including back or neck pain, knee pain associated with osteoarthritis, and postoperative pain; it may also help relieve joint pain associated with the use of aromatase inhibitors, which are drugs used in people with breast cancer.
- An analysis of data from 20 studies (6,376 participants) of people with painful conditions (back pain, osteoarthritis, neck pain, or headaches) showed that the beneficial effects of acupuncture continued for a year after the end of treatment for all conditions except neck pain.
- A 2018 review of data from 12 studies (8,003 participants) showed that acupuncture was more effective than no treatment for back or neck pain, and data from 10 studies (1,963 participants) showed acupuncture was effective; the pain-relieving effect of acupuncture was comparable to that of nonsteroidal anti-inflammatory drugs (NSAIDs).
- A 2017 clinical practice guideline from the American College of Physicians included acupuncture among the nondrug options recommended as first-line treatment for chronic low-back pain; acupuncture is also one of the treatment options recommended for acute low-back pain.

- In a 2018 review, data from 10 studies (2,413 participants) showed acupuncture was more effective than no treatment for osteoarthritis pain; the pain-relieving effect of acupuncture was comparable to that of NSAIDs.
- A 2019 clinical practice guideline from the American College of Rheumatology and the Arthritis Foundation conditionally recommends acupuncture for osteoarthritis of the knee, hip, or hand; the guideline states that the greatest number of studies showing benefits have been for knee osteoarthritis.
- A 2020 review of nine studies that compared acupuncture with various drugs for preventing migraine found that acupuncture was slightly more effective, and study participants who received acupuncture were much less likely than those receiving drugs to drop out of studies because of side effects.
- There is evidence that indicates that acupuncture may reduce the frequency of migraines (from an evaluation of 22 studies with almost 5,000 people); there is evidence that acupuncture may reduce the frequency of tension headaches (from an evaluation of 12 studies with about 2,350 people).
- Myofascial pain syndrome may refer to a syndrome associated with a common form of pain derived from muscles and their related connective tissue (fascia); it involves tender nodules called “trigger points;” pressing on these nodules reproduces the patient’s pattern of pain; a combined analysis of a small number of studies of acupuncture for myofascial pain syndrome showed that acupuncture applied to trigger points had a favorable effect on pain intensity (five studies, 215 participants).
- Sciatica involves pain, weakness, numbness, or tingling in the leg, usually on one side of the body, caused by damage to or pressure on the sciatic nerve, a nerve that starts in the lower back and runs down the back of each leg; research indicates that acupuncture may be helpful for sciatica pain.
- A recent evaluation of 11 studies of pain after surgery (with a total of 682 participants) found that patients treated with acupuncture or related techniques one day after surgery had less pain and used less opioid pain medicine after the operation.
- A group of drugs called aromatase inhibitors has been shown to be of value in treating hormone-sensitive breast cancer, but the drugs can cause joint pain and stiffness, and patients sometimes stop taking them because of these side effects;

acupuncture was studied to see whether it is helpful for this type of pain; a 2017 review of five studies (181 participants) of acupuncture for aromatase inhibitor-induced joint pain in breast cancer patients concluded that six to eight weeks of acupuncture treatment may help reduce the pain; a larger 2018 study included 226 women with early-stage breast cancer who were taking aromatase inhibitors; the study found that the women who received six weeks of acupuncture treatment, given twice each week, reported less joint pain than the participants who did not receive acupuncture.

- Chronic prostatitis/chronic pelvic pain syndrome may refer to a condition in men that involves inflammation of or near the prostate gland. The cause of chronic prostatitis/chronic pelvic pain syndrome is uncertain. A review of three studies (204 total participants) suggested that acupuncture may reduce prostatitis symptoms.

- A 2019 review of 12 studies (824 participants) of people with fibromyalgia indicated that acupuncture could relieve pain.

- A 2019 review of 41 studies (3,440 participants) showed that acupuncture could be helpful when used in addition to other forms of treatment of irritable bowel syndrome.

- In addition to pain conditions, acupuncture has also been studied for at least 50 other health problems; there is evidence that acupuncture may help relieve seasonal allergy symptoms, stress incontinence in women, and nausea and vomiting associated with cancer treatment. It may also help relieve symptoms and improve the quality of life in people with asthma.

- A recent evaluation of 13 studies of acupuncture for allergic rhinitis, involving a total of 2,365 participants, found evidence that acupuncture may help relieve nasal symptoms; the study participants who received acupuncture also had lower medication scores (meaning that they used less medication to treat their symptoms) and lower blood levels of immunoglobulin E (IgE), a type of antibody associated with allergies.

- A clinical practice guideline from the American Academy of Otolaryngology - Head and Neck Surgery included acupuncture among the options health care professionals may offer to patients with allergic rhinitis.

- Stress incontinence may refer to a bladder control problem in which movement (e.g., coughing, sneezing, laughing, or physical activity) puts pressure on the bladder and causes urine to leak. In a 2017 study of about 500 women with stress incontinence, participants who received a type of acupuncture treatment (18 sessions over six weeks) had reduced urine leakage, with about two-thirds of the women having a decrease in leakage of 50 percent or more.
- In a study conducted in Germany in 2017, 357 participants receiving routine asthma care were randomly assigned to receive or not receive acupuncture, and an additional 1,088 people who received acupuncture for asthma were also studied. Adding acupuncture to routine care was associated with better quality of life compared to routine care alone.
- A review of nine studies (777 participants) showed that adding acupuncture to conventional asthma treatment improved symptoms.
- A 2018 review of 64 studies (7,104 participants) of acupuncture for depression indicated that acupuncture may result in a moderate reduction in the severity of depression when compared with treatment as usual or no treatment.
- A 2018 review of studies of acupuncture for vasomotor symptoms associated with menopause (hot flashes and related symptoms such as night sweats) analyzed combined evidence from an earlier review of 15 studies (1,127 participants) and four newer studies (696 additional participants). The analysis showed that acupuncture was better than no acupuncture at reducing the frequency and severity of symptoms.
- Auricular acupuncture may refer to a type of acupuncture that involves stimulating specific areas of the ear. Auricular acupressure may refer to a type of acupuncture that does not involve penetration with needles. In a 2019 review of 15 studies (930 participants) of auricular acupuncture or auricular acupressure, the treatment significantly reduced pain intensity, and 80 percent of the individual studies showed favorable effects on various measures related to pain.
- A 2020 review of nine studies (783 participants) of auricular acupuncture for cancer pain showed that auricular acupuncture produced pain relief.
- Acupuncture is safe; relatively few complications from using acupuncture have been reported.

- The U.S. Food and Drug Administration (FDA) regulates acupuncture needles as medical devices and requires that they be sterile and labeled for single use only.

Massage Therapy

Much like with acupuncture, massage therapy is being included in recreational therapy programs and other related care programs. Specific information regarding massage therapy may be found below. The information found below was derived from materials provided by the National Institutes of Health (National Institutes of Health, 2019).

- Massage therapy may refer to a practice that involves manipulating the soft tissues of the body.
- Massage therapy is typically used to help manage health conditions and/or enhance wellness.
- The term massage therapy includes many techniques. The most common form of massage therapy in Western countries is called Swedish or classical massage; it is the core of most massage training programs; other styles include sports massage, clinical massage, and massage traditions derived from Eastern cultures, such as Shiatsu and Tui na.
- Massage therapy can help residents reduce stress and tension.
- Massage therapy was studied for several types of pain, including low-back pain, neck and shoulder pain, pain from osteoarthritis of the knee, and headaches.
- The Agency for Health Care Research and Quality, in a recent evaluation of nondrug therapies for low-back pain, examined 20 studies that compared massage to usual care or other interventions and found that there was evidence that massage was helpful for chronic low-back pain.
- A recent review of 25 studies with a total of 3,096 participants found that in both acute and chronic low-back pain, there were short-term improvements in pain after massage therapy.
- Clinical practice guidelines (guidance for health care providers) issued by the American College of Physicians in 2017 included massage therapy as an option for treating acute/subacute low-back pain.

- A recent review of 12 studies (757 total participants) found that massage therapy was more helpful for both neck and shoulder pain than inactive therapies.
- A recent review of four studies conducted in the U.S. (519 participants) found that massage could provide short-term relief of neck pain if massage sessions were long enough and frequent enough.
- Five studies that evaluated massage therapy for osteoarthritis of the knee (408 total participants), found that it provided short-term pain relief.
- A recent study with 64 participants evaluated two types of massage (lymphatic drainage and traditional massage), once a week for eight weeks, in patients with migraine; the frequency of migraines decreased in both groups.
- In a recent study, 56 people with tension headaches were assigned to receive massage at myofascial trigger points or an inactive treatment (detuned ultrasound) twice a week for six weeks; people who received either massage or the inactive treatment had a decrease in the frequency of headaches.
- Massage therapy, with or without aromatherapy (the use of essential oils) has been used to attempt to relieve pain, anxiety, and other symptoms in people with cancer; a recent evaluation of 19 studies (more than 1,200 participants) of massage for cancer patients found some evidence that massage might help with pain and anxiety.
- Clinical practice guidelines (guidance for health care professionals) for the care of breast cancer patients include massage as one of several approaches that may be helpful for stress reduction, anxiety, depression, fatigue, and quality of life; clinical practice guidelines for the care of lung cancer patients suggest that massage therapy could be added as part of supportive care in patients whose anxiety or pain is not adequately controlled by usual care.
- A recent evaluation of nine studies (404 total participants) concluded that massage therapy, if continued for at least five weeks, improved pain, anxiety, and depression in people with fibromyalgia.
- A recent evaluation of 10 studies (478 total participants) compared the effects of different kinds of massage therapy and found that most styles of massage had beneficial effects on quality of life in people with fibromyalgia.

- A study of 54 people indicated that massage may be helpful for depression in people with HIV, and a 2017 study of 29 people with HIV suggested that massage may be helpful for anxiety.
- The risk of harmful effects from massage therapy appears to be low; however, there have been rare reports of serious side effects, such as a blood clot, nerve injury, or bone fracture; some of the reported cases have involved vigorous types of massage, such as deep tissue massage, or patients who might be at increased risk of injury.

Relaxation Techniques

Relaxation techniques may refer to practices that help bring about the body's relaxation response, which is characterized by slower breathing, lower blood pressure, and a reduced heart rate. Specific information regarding relaxation techniques may be found below. The information found below was derived from materials provided by the National Institutes of Health (National Institutes of Health, 2021).

- The relaxation techniques found below may be used in recreational therapy programs.
    - **Progressive relaxation** - progressive relaxation may refer to a technique that involves tensing different muscles in the body and then releasing the tension to create a sensation of overall relaxation.
    - **Autogenic training** - autogenic training may refer to a process that involves relaxation and ideas individuals suggest to themselves (autosuggestion) so the mind focuses on the body's experience of relaxation.
    - **Guided imagery or visualization** - guided imagery may refer to a practice where individuals picture objects, scenes, or events that are associated with relaxation or calmness and attempt to produce a similar feeling in the body.
    - **Biofeedback-assisted relaxation** - biofeedback-assisted relaxation may refer to a practice that uses feedback provided by an electronic device that helps individuals recognize and manage how the body responds.

    - **Self-hypnosis** - self-hypnosis may refer to a practice that helps individuals learn to produce the relaxation response when prompted by a phrase or nonverbal cue (called a “suggestion”) of their own.
    - **Breathing exercises** - breathing exercises may focus on diaphragmatic breathing, which is a type of breathing characterized by slow, deep breaths.
- A 2017 review on recurrent abdominal pain found that guided imagery may be helpful in reducing pain.
- A recent review looked at various interventions done before surgery on pain and after surgery in people who had elective surgery with general anesthesia. An analysis of 13 studies that involved relaxation techniques as part of the intervention found that relaxation techniques helped reduce pain after surgery.
- In a 2018 review of six studies (274 participants), five studies found that autogenic training or biofeedback-assisted autogenic training helped to reduce headache pain.
- In a 2018 review, five of eight studies found that hypnosis, usually self-hypnosis and often paired with guided imagery, resulted in less headache activity in people diagnosed with migraine or chronic headache disorder.
- A recent review looked at 19 studies (2,600 total participants) on psychological interventions for migraine and tension-type headache. Most of the interventions involved relaxation training, cognitive behavioral therapy, or biofeedback, either individually or in some combination. Fifteen of the studies saw headache improvements.
- The American College of Physicians recommends using nondrug methods for the initial treatment of chronic low-back pain (note: chronic back pain may refer to back pain that lasts more than 12 weeks). Progressive muscle relaxation and biofeedback are two of several nondrug approaches suggested in the most recent guideline. The guideline was based on a 2017 review that found that progressive muscle relaxation resulted in moderate improvement of low-back pain and function and that biofeedback led to a moderate reduction in low-back pain.
- A 2018 study of 58 people with chronic low-back pain found that progressive muscle relaxation helped with pain, anxiety, depression, quality of life, and sleep

(note: participants took opioid medicines without any beneficial changes in the three months before starting the study).

- A recent review of seven studies, 306 participants total, found that guided imagery may be beneficial for adults with arthritis and other rheumatic diseases. The guided imagery was delivered by audio technology and ranged from a one-time exposure to twice daily for 16 weeks. Four of the studies, with a total of 180 participants, looked specifically at pain.

- A 2019 review evaluated the research on heart rate variability biofeedback to treat fibromyalgia. The review included six studies (312 participants) of chronic musculoskeletal pain and found that heart rate variability biofeedback was related to decreased pain.

- In 2017, the Society for Integrative Oncology updated its clinical practice guidelines on using integrative therapies during and after breast cancer treatment. The American Society of Clinical Oncology endorsed the updated guidelines. In the guidelines, relaxation techniques were recommended for improving mood and depression. The guidelines also said that relaxation techniques might help to reduce stress and anxiety and to control nausea and vomiting during chemotherapy in some individuals and could be offered to them.

- A 2019 review of seven studies looked at the effects of relaxation training on migraine headaches, tension-type headache, or both. The studies reported decreased headache frequency, duration, and intensity after relaxation training.

- A 2019 review of 17 studies involving 1,165 participants indicated that slow breathing exercises led to a modest reduction in blood pressure and may be a reasonable first treatment for people with prehypertension or low-risk high blood pressure (note: prehypertension may refer to a state characterized by a systolic pressure from 120 - 139 millimeters of mercury (mm Hg) or a diastolic pressure from 80 - 89 mm Hg).

- A 2018 review found that relaxation therapies and biofeedback might be helpful for reducing blood pressure.

- A 2017 review looked at 24 studies, with 484 participants in total, on heart rate variability (HRV) biofeedback and general stress and anxiety. HRV biofeedback may refer to a process that involves receiving data on heart rate from a device and then using breathing techniques to change the heart rate pattern. The review

found that HRV biofeedback is helpful for reducing self-reported stress and anxiety, and the researchers saw it as a promising approach with further development of wearable devices like a fitness tracker.

- A 2019 review of three studies, with a total of 880 participants, found preliminary evidence suggesting that diaphragmatic breathing exercises may help to reduce stress. Promising positive changes were seen in mental health self-evaluations and in certain physical measures, such as cortisol levels and blood pressure.

- About 20 percent of stroke patients have anxiety at some point after their stroke. A 2017 review looked at interventions for anxiety after stroke. The review included one study on 21 stroke survivors with diagnosed anxiety. The participants used a relaxation CD five times a week for a month. After three months, the participants had reduced anxiety.

- A 2018 review of 16 studies that included 856 people with anxiety disorders (generalized anxiety disorder, social anxiety disorder, and panic disorder) found that relaxation therapy reduced symptoms of anxiety, depression, phobia, and worry. This review found relaxation therapy to be more effective than cognitive behavioral therapy for reducing anxiety.

- A 2018 review looked at 27 studies of psychological interventions to try to improve sleep. The studies involved 2,776 college students who ranged from healthy sleepers to those with a diagnosed sleep disorder. About 22 percent of the studies investigated “relaxation, mindfulness, hypnotherapy” treatments. Similar to the guidelines from the American College of Physicians, this review recommended cognitive behavioral therapy to improve sleep in college students. The review also found that relaxation approaches helped with sleep quality and sleep problems but especially with mental health. The authors recommended that “relaxation, mindfulness, hypnotherapy” treatments be combined with cognitive behavioral therapy as a way to enhance mental health benefits.

- A 2020 review on psychotherapeutic interventions for irritable bowel syndrome (IBS) included one study that involved relaxation techniques. Sixty-nine adults with IBS participated in a five-week course that had an educational component, psychological component, and training in progressive muscle relaxation and diaphragmatic breathing. The course led to improvements in IBS symptoms, depression, and quality of life.

- A 2017 systematic review found that relaxation techniques and cognitive behavioral therapy both helped improve mental health in adults with irritable bowel syndrome.
- Relaxation techniques are generally considered safe for healthy people. In most research studies, there were no reported negative side effects. Health care administrators should note that people with heart disease should talk to a health care professional before engaging in progressive muscle relaxation.

Music

- According to a growing body of research, listening to or making music affects the brain in ways that may help promote health and manage disease symptoms.
- Performing or listening to music activates a variety of structures in the brain that are involved in thinking, sensation, movement, and emotion; these brain effects may have physical and psychological benefits. For example, music causes the release of brain chemicals (neurotransmitters and hormones) that can evoke emotional reactions, memories, and feelings and promote social bonds.
- According to research presented by the National Institute on Aging, music can affect the structure of the brain; certain structures in the brain have been found to be larger in musicians than nonmusicians, with particularly noticeable changes in people who started their musical training at an early age.
- Increasing evidence suggests that music-based interventions may be helpful for health conditions that occur during adulthood or aging.
- Music therapy may refer to a health profession in which music is used within a therapeutic relationship to address physical, emotional, cognitive, and social needs.
- Music therapy typically involves a variety of different activities, including music improvisation, music listening, song writing, music performance, and learning through music.
- Music-based interventions may be initiated by a music therapist or another type of health care professional.
- The preliminary research that has been done so far suggests that music-based interventions may be helpful for anxiety, depressive symptoms, and pain

associated with a variety of health conditions, as well as for some other symptoms associated with dementia, multiple sclerosis, Parkinson's disease, and other conditions.

- A recent review looked at 97 studies (9,184 participants) of music-based interventions for acute or chronic pain associated with a variety of health problems and medical procedures. The overall evidence suggested that music-based interventions may have beneficial effects on both pain intensity and emotional distress from pain and may lead to decreased use of pain-relieving medicines.
- A 2017 review of 14 randomized trials (1,178 participants) of music-based interventions for various types of chronic pain found that the interventions reduced self-reported chronic pain and associated depressive symptoms, with a greater effect when the music was chosen by the participant rather than the researcher. The study participants had a variety of conditions that can cause chronic pain, including cancer, fibromyalgia, multiple sclerosis, or osteoarthritis, and most of the interventions involved listening to recorded music.
- A recent review of 17 studies (1,381 participants) that evaluated the effect of music-based interventions on anxiety in adults with cancer suggested that the interventions may have a large anxiety-reducing effect.
- A recent review of five studies (290 participants) in people who were having dialysis treatments suggested that listening to music reduced anxiety.
- A 2021 review of randomized controlled trials (studies in which participants were randomly assigned to a music-based intervention group or a control group), which included 81 trials and 5,576 participants, concluded that in adults with cancer, music interventions may have a large anxiety-reducing effect, a moderately strong beneficial effect on depression, a moderate pain-reducing effect, and a large effect on the quality of life.
- A 2021 review of 11 studies (491 participants) on music interventions for individuals with cancer, which included some studies that were less rigorous than a randomized controlled trial, found evidence suggesting that music-based interventions may decrease anxiety, perceived pain, and depression symptoms and improve state of mind, self-esteem, and quality of life.

- A 2021 systematic review of 12 studies (812 participants) showed that music-based interventions were helpful for shortness of breath, anxiety, and sleep quality in adults with COPD.
- A 2018 review evaluated 22 studies (1,097 participants) of music-based interventions for people with dementia who were living in institutions. Some of the interventions were receptive (listening to music), some were active (singing, playing instruments, moving to music, etc.), and some were a combination of the two. The evidence from these studies indicated that music-based interventions probably reduce depressive symptoms and improve overall behavioral challenges. They may also improve emotional well-being and quality of life and reduce anxiety.
- A 2021 review looked at 21 studies (1,472 participants) of people with either mild cognitive impairment or mild or moderate dementia; some of the people studied were living in institutions, but others were living in the community. All the music interventions were active; studies that only involved listening to music were not included. Nine of the studies (495 participants) were included in a quantitative analysis of effects on cognitive functioning; this analysis indicated that the music-based interventions had a small beneficial effect. There was also some evidence for beneficial effects on mood and quality of life.
- A 2017 review looked at nine studies (421 participants) of music-based interventions in adults with depression. There was moderate-quality evidence that adding music-based interventions to usual treatment improved depression symptoms when compared with usual treatment alone. Music-based interventions also helped decrease anxiety levels and improve functioning of people with depression (e.g., their ability to maintain involvement in work, activities, and relationships).
- A 2020 systematic review of seven studies (334 participants) found evidence that music-based interventions were beneficial for pain, depression, and quality of life in people with fibromyalgia.
- A 2021 review of music-based interventions for people with multiple sclerosis (10 trials, 429 participants) found consistent evidence that the interventions were beneficial for coordination, balance, some aspects of gait and walking, emotional status, and pain.

- Rhythmic auditory stimulation may refer to a technique that uses pulsed sounds, such as those produced by a metronome, to help people synchronize their movements to the rhythm of the sounds. Rhythmic auditory stimulation may be used to help people with Parkinson's disease improve their ability to walk. A 2021 analysis of five studies (209 total participants) showed significant improvements in gait speed and stride length in people with Parkinson's disease who participated in rhythmic auditory stimulation.

- Music-based movement therapy may refer to a practice that combines physical activities such as dance or rhythmic exercises with music. Therapies that involve physical activity have been shown to be helpful for a variety of Parkinson's disease symptoms. Adding music to the therapy might have additional benefits by providing auditory cues for movement and making the activities more enjoyable. A 2021 analysis of 17 studies (598 participants) of music-based movement therapy showed evidence of improvements in motor function, balance, freezing of gait, walking speed, and mental health but not gait cadence, stride length, or quality of life.

- The potential benefits of singing for people with Parkinson's disease have been studied primarily in terms of effects on speech. In a recent review of seven studies (102 participants), five studies found some evidence of a beneficial effect on speech.

- Music-based interventions have been evaluated as adjunct treatments (additions to usual treatment) for people with schizophrenia. A 2020 review of 18 studies (1,212 participants) indicated that adjunct music-based interventions may improve a group of schizophrenia symptoms known as "negative symptoms," such as reduced emotion and self-neglect, as well as depression symptoms and quality of life.

- A 2022 review looked at 13 studies (1,007 participants) that examined the effect of listening to recorded music in people with insomnia. Evidence suggested that listening to music has a beneficial effect on subjective sleep quality. The studies also provided evidence that listening to music might help improve the speed of falling asleep, the length of time spent sleeping, and the amount of time a person is asleep compared to the total time spent in bed.

- A 2021 review looked at 16 studies of music-based interventions for sleep in older adults (812 participants); 11 studies evaluated music listening, and the other five

evaluated more complex interventions. The results suggested that the music interventions were helpful.

- In a 2020 review with 104 studies (9,617 participants), investigators looked at the effects of a variety of music-based interventions on measures associated with stress, including both physical measures (heart rate, blood pressure, and levels of stress-related hormones) and psychological measures (anxiety, nervousness, restlessness, and feelings of worry). The music-based interventions had a beneficial effect on the physical measures and a beneficial effect on the psychological measures.
- A second 2020 review looked at 47 studies (2,747 participants) of music therapy (excluding other music-based interventions) and found an overall medium-to-large beneficial effect on stress-related outcomes.
- Music-based interventions may be helpful in the rehabilitation of people who had a stroke. A 2019 review of 27 studies (730 participants) found positive effects on physical status (upper-limb activity, various aspects of walking, balance), cognition (paying attention, communication), and mood. In particular, rhythmic auditory stimulation (which involves the use of a metronome combined with physical activities) had beneficial effects on gait and balance, and receptive music therapy (which involves listening to music while performing another task) was helpful for mood and some aspects of cognitive function.
- Notched music therapy may refer to a practice that involves listening to music that was modified to remove sounds close in frequency to the frequency of the tinnitus sound perceived by the patient. Research suggests that the loudness of tinnitus sounds could be reduced with notched music therapy.
- In general, research studies of music-based interventions do not show any negative effects. However, listening to music at too high a volume can contribute to noise-induced hearing loss. In addition, because music can be associated with strong memories or emotional reactions, some people may be distressed by exposure to specific pieces or types of music. Extensive playing of musical instruments can lead to pain and injury. Music-based interventions that involve exercise or other types of movement could also lead to injury if appropriate safety precautions are not taken.

Dance

- Dance may refer to an art form consisting of sequential moments.
- Dance and dance classes can help residents engage in physical activity, as well as reduce stress, tension, social isolation, and loneliness.
- Research indicates that the areas of the brain that control memory and skills such as planning and organizing improve with exercise; dance has the added dimensions of rhythm, balance, music, and a social setting that enhances the benefits of exercise (CDC, 2018).
- At the University of Illinois at Chicago, through the CDC-funded Prevention Research Centers' Healthy Brain Research Network, researchers designed a Latin ballroom dance program for older sedentary adults; participants in the program, BAILAMOS, reported improvements in memory, attention, and focus; in a separate ballroom dance program, older adults experiencing mild cognitive impairment improved their thinking and memory after a 10-month-long ballroom dancing class (CDC, 2018).
- The following strategies may be used to encourage dance among older adults: split dance moves and exercises into small, easy-to-follow steps; use dance videos; engage older adults in 5- or 10-minute mini dancing sessions to slowly build endurance; take breaks when needed; drink plenty of water to stay hydrated (CDC, 2018).

Animal-Assisted Therapy

- Animal-assisted therapy may refer to a practice that incorporates animals, such as horses, dogs, cats, and birds, into patient treatment.
- Animal-assisted therapy may be used in the treatment of depression, anxiety, schizophrenia, substance use disorder, and Alzheimer's disease.
- Dogs are the most common animal used in animal-assisted therapy.
- A 2018 study looked at the use of animal-assisted therapy to treat depression and anxiety in older adult patients.
- The goal of the 2018 study was to verify dog-assisted therapy's effectiveness on depression and anxiety in older adult populations; patients' illness perception was

examined to identify core beliefs regarding mood, personal control, and illness coherence because they can affect treatment compliance; subjective perception of pain, social interaction, and setting-bound observable variables were also studied (Ambrosi et al., 2019).

- The 2018 study involved a randomized sample of institutionalized patients 65 years of age and older; the treatment group had 17 subjects and the control group had 14 subjects; all patients were administered the Mini-Mental State Examination, 15-item Geriatric Depression Scale, Positive and Negative Affect Schedule, Generalized Anxiety Disorder 7, Illness Perception Questionnaire, and Numeric Pain Rating Scale; intra- and inter-group data analysis was performed before and after treatment; over the course of 10 weeks, patients participated in individual 30-min sessions; an observational methodology was developed to record verbal and non-verbal interactions between the older adults, the dog, and the dog handler (Ambrosi et al., 2019).
- Researchers conducting the 2018 study concluded that dog-assisted therapy proved to be effective in reducing symptoms of depression in institutionalized older adults; the increase in verbal interactions with the handlers throughout the study suggests that the dog acts as a facilitator of social interaction, eliciting positive emotional responses; dog-assisted therapy shows promising results in the perception of illness timeline and treatment control, indicating potential enhancement of the sense of treatment-related empowerment (Ambrosi et al., 2019).

Art Therapy

- Art therapy may refer to a practice that uses creative techniques such as drawing, painting, collage, coloring, or sculpting in patient care.
- Art therapy may be used in the treatment of depression, anxiety, personality disorders, substance use disorder, Alzheimer's disease, and hypertension.
- A 2018 study looked at the use of art therapy as adjuvant treatment for depression in older adults.
- The goal of the 2018 study was to evaluate if art therapy is beneficial as an adjuvant treatment for depression in older adult populations (Ciasca et al., 2018).

- The 2018 study utilized a randomized, controlled, single-blind study in a sample of older adult women with major depressive disorder (MDD) stable on pharmacotherapy; the experimental group (EG) was assigned to 20 weekly art therapy sessions (90 min/session); the control group (CG) was not subjected to any adjuvant intervention; patients were evaluated at baseline and after 20 weeks, using the Geriatric Depression Scale (GDS), Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), and cognitive measures (Ciasca et al., 2018).
- The 2018 study revealed, through logistic regression analysis adjusted for age, that women in EG (n=31) had significant improvement in GDS ($p = 0.007$), BDI ($p = 0.025$), and BAI ($p = 0.032$) scores as compared with controls (n=25) (Ciasca et al., 2018).
- Researchers conducting the 2018 study concluded that art therapy as an adjunctive treatment for MDD in older adult populations can improve depressive and anxiety symptoms (Ciasca et al., 2018).

Section 2 Summary

Recreational therapy programs can include a variety of activities such as: tai chi, yoga, qigong, meditation and mindfulness-based practices, acupuncture, massage therapy, classes involving relaxation techniques, music, dance, animal-assisted therapy, and art therapy. Health care administrators should be aware of such activities and how they can impact resident care and resident treatment outcomes. Health care administrators should engage health care professionals and residents to identify how recreational therapy activities are impacting residents of their specific health care facility.

Section 2 Key Concepts

- Recreational therapy programs can include a variety of activities such as: tai chi, yoga, qigong, meditation and mindfulness-based practices, acupuncture, massage therapy, classes involving relaxation techniques, music, dance, animal-assisted therapy, and art therapy.

Section 2 Key Terms

Tai chi - a practice that involves a series of slow gentle movements and physical postures, a meditative state of mind, and controlled breathing

Psychoemotional state - a state characterized by elevated levels of depression, paranoia, obsessions, compulsions, and/or anxiety

Yoga - a practice characterized by physical postures, breathing techniques, and meditation

Kundalini yoga - a type of yoga that involves chanting, singing, breathing exercises, and repetitive poses

Cognitive behavioral therapy (CBT) - a type of talk therapy that aims to reduce the symptoms of various types of mental health conditions

Qigong - a practice that uses exercises to optimize energy within the body, mind, and spirit, with the goal of improving and maintaining health and overall well-being

Meditation - a variety of practices that focus on mind and body integration and are used to calm the mind and enhance overall well-being

Mantra - a repeated word or phrase

Mindfulness-based stress reduction - a program that teaches mindful meditation and includes discussion sessions and other strategies to help people apply what they learned to stressful experiences

Mindfulness-based cognitive therapy - a form of therapy that integrates mindfulness practices with aspects of cognitive behavioral therapy

Prolonged exposure therapy - a type of therapy that helps individuals reduce their PTSD symptoms by teaching them to gradually remember traumatic memories, feelings, and situations

Acupuncture - a form of therapy characterized by the use of needles that are inserted into the body in order to treat health problems

Myofascial pain syndrome - a syndrome associated with a common form of pain derived from muscles and their related connective tissue (fascia)

Chronic prostatitis/chronic pelvic pain syndrome - a condition in men that involves inflammation of or near the prostate gland

Stress incontinence - a bladder control problem in which movement (e.g., coughing, sneezing, laughing, or physical activity) puts pressure on the bladder and causes urine to leak

Auricular acupuncture - a type of acupuncture that involves stimulating specific areas of the ear

Auricular acupressure - a type of acupuncture that does not involve penetration with needles

Massage therapy - a practice that involves manipulating the soft tissues of the body

Relaxation techniques - practices that help bring about the body's relaxation response, which is characterized by slower breathing, lower blood pressure, and a reduced heart rate

Progressive relaxation - a technique that involves tensing different muscles in the body and then releasing the tension to create a sensation of overall relaxation

Autogenic training - a process that involves relaxation and ideas individuals suggest to themselves (autosuggestion) so the mind focuses on the body's experience of relaxation

Guided imagery - a practice where individuals picture objects, scenes, or events that are associated with relaxation or calmness and attempt to produce a similar feeling in the body

Biofeedback-assisted relaxation - a practice that uses feedback provided by an electronic device that helps individuals recognize and manage how the body responds

Self-hypnosis - a practice that helps individuals learn to produce the relaxation response when prompted by a phrase or nonverbal cue (called a "suggestion") of their own

Diaphragmatic breathing - a type of breathing characterized by slow, deep breaths

Chronic back pain - back pain that lasts more than 12 weeks

Prehypertension - a state characterized by a systolic pressure from 120 - 139 millimeters of mercury (mm Hg) or a diastolic pressure from 80 - 89 mm Hg

Heart rate variability (HRV) - a process that involves receiving data on heart rate from a device and then using breathing techniques to change the heart rate pattern

Music therapy - a health profession in which music is used within a therapeutic relationship to address physical, emotional, cognitive, and social needs

Rhythmic auditory stimulation - a technique that uses pulsed sounds, such as those produced by a metronome, to help people synchronize their movements to the rhythm of the sounds

Music-based movement therapy - a practice that combines physical activities such as dance or rhythmic exercises with music

Notched music therapy - a practice that involves listening to music that was modified to remove sounds close in frequency to the frequency of the tinnitus sound perceived by the patient

Dance - an art form consisting of sequential moments

Animal-assisted therapy - a practice that incorporates animals, such as horses, dogs, cats, and birds, into patient treatment

Art therapy - a practice that uses creative techniques such as drawing, painting, collage, coloring, or sculpting in patient care

Section 2 Personal Reflection Question

How can health care administrators include the activities found above in recreational therapy programs?

Section 3: Guidelines

This section of the course highlights guidelines that may be used by health care administrators to develop recreational therapy programs that meet the specific needs of their health care organizations.

Physical Activity Guidelines

As previously mentioned, physical activity may refer to any voluntary bodily movement produced by skeletal muscles that requires energy expenditure. Specific information regarding physical activity guidelines and recommendations may be found below. The information found below was derived from materials provided by the U.S. Department of Health and Human Services (U.S. Department of Health and Human Services, 2018).

- Adults should move more and sit less throughout the day. Some physical activity is better than none. Adults who sit less and do any amount of moderate-to-vigorous physical activity gain some health benefits.
- For substantial health benefits, adults should do at least 150 minutes (2 hours and 30 minutes) to 300 minutes (5 hours) a week of moderate-intensity, or 75 minutes (1 hour and 15 minutes) to 150 minutes (2 hours and 30 minutes) a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic activity. Preferably, aerobic activity should be spread throughout the week.
- For adults, additional health benefits are gained by engaging in physical activity beyond the equivalent of 300 minutes (five hours) of moderate-intensity physical activity a week.
- Adults should also do muscle-strengthening activities of moderate or greater intensity and that involve all major muscle groups on two or more days a week, as these activities provide additional health benefits.
- Adults with chronic conditions or disabilities, who are able, should do at least 150 minutes (2 hours and 30 minutes) to 300 minutes (5 hours) a week of moderate-intensity, or 75 minutes (1 hour and 15 minutes) to 150 minutes (2 hours and 30 minutes) a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic activity. Preferably, aerobic activity should be spread throughout the week.
- Adults with chronic conditions or disabilities, who are able, should also do muscle-strengthening activities of moderate or greater intensity and that involve all major muscle groups on two or more days a week, as these activities provide additional health benefits.
- When adults with chronic conditions or disabilities are not able to meet the above key guidelines, they should engage in regular physical activity according to their abilities and should avoid inactivity.
- Older adults should follow the key physical activity guidelines for adults, when possible.
- As part of their weekly physical activity, older adults should do multicomponent physical activity that includes balance training as well as aerobic and muscle-strengthening activities.

- Older adults should determine their level of effort for physical activity relative to their level of fitness.
- Older adults with chronic conditions should understand whether and how their conditions affect their ability to do regular physical activity safely.
- When older adults cannot do 150 minutes of moderate-intensity aerobic activity a week because of chronic conditions, they should be as physically active as their abilities and conditions allow.
- Individuals should understand the risks, yet be confident that physical activity can be safe for almost everyone.
- Individuals should choose types of physical activity that are appropriate for their current fitness level and health goals, because some activities are safer than others.
- Individuals should increase physical activity gradually over time to meet key guidelines or health goals; inactive individuals should "start low and go slow" by starting with lower intensity activities and gradually increasing how often and how long activities are done.
- Individuals should protect themselves by using appropriate gear and sports equipment, choosing safe environments, following rules and policies, and making sensible choices about when, where, and how to be active.
- Individuals should be under the care of a health care professional if they have chronic conditions or symptoms; individuals with chronic conditions and symptoms can consult a health care professional or physical activity specialist about the types and amounts of activity appropriate for them.

Physical Activity Guidelines For People with Arthritis

Physical activity guidelines and recommendations for people with arthritis may be found below. The information found below was derived from materials provided by the CDC (CDC, 2018).

- People with arthritis should be physically active; being physically active can delay the onset of arthritis-related disability and help people with arthritis manage other chronic conditions such as diabetes, heart disease, and obesity (note:

arthritis may refer to inflammation or the swelling of one or more joints; some physical activity is better than none for people with arthritis).

- People with arthritis should engage in joint-friendly physical activity; joint-friendly physical activity can improve arthritis pain, function, mood, and quality of life; joint-friendly physical activities are low-impact, which means they put less stress on the body, reducing the risk of injury. Examples of joint-friendly activities include: walking, biking, and swimming.
- When starting or increasing physical activity, people with arthritis should start slowly and pay attention to how the body tolerates physical activity (note: it may take more time for their body to adjust to a new level of activity, when compared to people without arthritis). People with arthritis should start with a small amount of activity, for example, three to five minutes two times a day; people with arthritis should add activity a little at a time (such as 10 minutes at a time) and allow enough time for the body to adjust to the new level before adding more activity.
- People with arthritis should modify activity when arthritis symptoms increase, and try to stay active. Arthritis symptoms, such as pain, stiffness, and fatigue, may come and go; people with arthritis should try to modify activity to stay as active as possible without making their symptoms worse.
- People with arthritis should choose activities that are easy on the joints like walking, bicycling, water aerobics, or dancing; these activities have a low risk of injury and do not twist or put too much pressure on the joints.
- Safety is important for starting and maintaining an activity plan. If currently inactive, an exercise class may be a good option.
- For major health benefits, people with arthritis should do at least 150 minutes (2 hours and 30 minutes) of moderate-intensity aerobic activity, like cycling at less than 10 miles per hour, or 75 minutes (1 hour and 15 minutes) of vigorous-intensity aerobic activity, like cycling at 10 mph or faster, each week. Another option is to do a combination of both. A rule of thumb is that one minute of vigorous-intensity activity is about the same as two minutes of moderate-intensity activity.
- In addition to aerobic activity, people with arthritis should also do muscle-strengthening activities that involve all major muscle groups two or more days a

week; muscle-strengthening exercises include lifting weights, working with resistance bands, and yoga.

- Flexibility exercises like stretching and yoga are also important for people with arthritis. Many people with arthritis have joint stiffness that makes daily tasks difficult; engaging in daily flexibility exercises helps maintain range of motion.
- Balance exercises like walking backwards, standing on one foot, and tai chi are important for those who are at a risk of falling or have trouble walking; individuals should engage in balance exercises three days per week if they are at risk of falling.
- People with arthritis should note the following: it is normal to have some pain, stiffness, and swelling after starting a new physical activity program; it may take six to eight weeks for joints to get used to a new activity level; people with arthritis should continue with their activity programs for potential long-term pain relief.
- If pain occurs as a result of physical activity, people with arthritis should modify their physical activity programs by exercising less frequently (fewer days per week) or for shorter periods of time (less time each session) until pain improves; engage in warm-up and cool-down routines before and after exercise; exercise at a comfortable pace; try a different type of exercise that puts less pressure on the joints (e.g., switch from walking to water aerobics); ensure shoes are comfortable, and fit well.
- People with arthritis should speak with a health care professional if they experience the following: pain that is sharp, stabbing, and constant; pain that causes a limp; pain that lasts more than two hours after exercise or gets worse at night; pain or swelling that does not get better with rest, medication, or hot or cold packs; large increases in swelling; or joints feel “hot” or are red.

Activity-Friendly Routes for Physical Activity

The CDC provides guidelines and recommendations for activity-friendly routes for physical activity. Specific guidelines and recommendations for activity-friendly routes for physical activity may be found below. The information found below was derived from materials provided by the CDC (CDC, 2022).

- Health care administrators should work to create activity-friendly routes. An activity-friendly route may refer to a route that is a direct and convenient connection with everyday destinations, offering physical protection from cars, and making it easy to cross the street and engage in physical activity.
- Activity-friendly routes to everyday destinations improves the design of communities by connecting routes such as sidewalks, trails, bicycle lanes, and public transit to destinations such as grocery stores, schools, worksites, libraries, parks, or health care facilities. This strategy makes it safe and easy to walk, bicycle, or wheelchair roll for people of all ages and abilities; creating or modifying environments to make it easier for people to walk, bike, or take transit can help increase physical activity.
- Health care administrators and health care organizations should work with local officials to help create activity-friendly routes.
- When working to develop activity-friendly routes, health care administrators should consider the following: street pattern design and connectivity, pedestrian infrastructure, bicycle infrastructure, and public transit infrastructure and access.
- When working to develop activity-friendly routes, health care administrators should consider everyday destinations. Everyday destinations may refer to places people can get to from where they live by walking, bicycling, or public transit (e.g., grocery stores, schools, worksites, libraries, parks, restaurants, cultural landmarks, natural landmarks, and health care facilities).
- Health care administrators should note the following components of everyday destinations: mixed land use, increased residential density, community access to parks and recreational facilities, neighborhood proximity, proximity of health care facilities.
- Health care administrators should note that complete street policies support the routine design and operation of streets and communities that are safe for all pedestrians, regardless of age, ability, or transportation mode. Key features found on complete street policies include sidewalks, protected bike lanes, special bus lanes, comfortable and accessible transit stops, frequent crossing opportunities, median islands, accessible pedestrian signals, and curb extensions.
- A comprehensive plan is often required for development. A comprehensive plan, also called the general plan or community master plan, may refer to the official

statement of a local government establishing policies for its long-term development. These documents can be created through a collaboration between citizens, planners, city leaders, and health care administrators to include policies that guide investments to improve residents' health outcomes by increasing physical activity opportunities.

- Zoning policies influence the design of communities and the location of different land use types, such as commercial and residential development; this can influence distances between the two and in turn the feasibility for active travel (note: policies outlined in comprehensive or master plans often guide zoning codes and other land development regulations).
- When working to develop activity-friendly routes, health care administrators should consider a safe routes approach. A safe routes approach may refer to a comprehensive approach to improve safety and security for everyone walking, bicycling, and wheelchair rolling. Safe routes approaches such as safe routes to parks include infrastructure improvements for better traffic laws, safety education, and incentives to encourage walking and bicycling to community destinations.
- Community organizations and locations can provide access to safe places to be physically active away from busy streets (e.g., walking trails, indoor facilities, parks, and playgrounds). Health and fitness facilities provide indoor opportunities to be physically active. These locations and facilities can also provide options to make physical activity safer and more comfortable for people with mobility limitations or chronic health conditions.
- Shared-use agreements allow public access to existing facilities by defining terms and conditions for sharing the costs and risks associated with expanding a property's use.

Guidelines for the Management of Acute and Chronic Low Back Pain

The Academy of Orthopaedic Physical Therapy (AOPT) provides guidelines and recommendations for the management of acute and chronic low back pain. Specific guidelines and recommendations for the management of acute and chronic low back pain may be found below. The information found below was derived from materials provided by the Academy of Orthopaedic Physical Therapy (AOPT) (Academy of Orthopaedic Physical Therapy [AOPT], 2021).

- Therapists can use exercise training interventions, including specific trunk muscle activation, for patients with acute low back pain (LBP).
- Therapists may use exercise training interventions, including trunk muscle strengthening and endurance and specific trunk muscle activation, to reduce pain and disability for patients with acute LBP with leg pain.
- Therapists should use exercise training interventions, including trunk muscle strengthening and endurance, multimodal exercise interventions, specific trunk muscle activation exercise, aerobic exercise, aquatic exercise, and general exercise, for patients with chronic LBP.
- Therapists may provide movement control exercise or trunk mobility exercise for patients with chronic LBP.
- Therapists may use exercise training interventions, including specific trunk muscle activation and movement control, for patients with chronic LBP with leg pain.
- Therapists should use specific trunk muscle activation and movement control exercise for patients with chronic LBP and movement control impairment.
- Therapists should use general exercise training to reduce pain and disability in older adults with chronic LBP.
- Therapists can use general exercise training for patients with LBP following lumbar spine surgery.
- Therapists should use thrust or nonthrust joint mobilization to reduce pain and disability in patients with acute LBP.
- Therapists may use massage or soft tissue mobilization for short-term pain relief in patients with acute LBP.
- Therapists should use thrust or nonthrust joint mobilization to reduce pain and disability in patients with chronic LBP.
- Therapists may use thrust or nonthrust joint mobilization to reduce pain and disability in patients with chronic LBP with leg pain.
- Therapists may use soft tissue mobilization or massage in conjunction with other treatments to reduce pain and disability in the short term for patients with chronic LBP.

- Therapists can consider the use of dry needling in conjunction with other treatments to reduce pain and disability in the short term for patients with chronic LBP.
- Therapists may use neural mobilization in conjunction with other treatments for short-term improvements in pain and disability in patients with chronic LBP with leg pain.
- Therapists may use active education strategies rather than passive strategies (e.g., providing access to educational materials only); active education strategies include one-on-one education on the biopsychosocial contributors to pain and self-management techniques, such as remaining active, pacing strategies, and back-protection techniques; therapists may also incorporate counseling on the favorable natural history of acute LBP as part of the education strategy.
- Therapists should use active treatments (e.g., yoga, stretching, Pilates, and strength training) instead of stand-alone educational interventions for patients with chronic LBP.

2019 American College of Rheumatology/Arthritis Foundation Guidelines for the Management of Osteoarthritis of the Hand, Hip, and Knee

The American College of Rheumatology/Arthritis Foundation provides guidelines for the management of osteoarthritis (OA) of the hand, hip, and knee. Specific guidelines for the management of osteoarthritis (OA) of the hand, hip, and knee may be found below (note: the following guidelines may be used to guide care for residents prior, during, and after recreational therapy activities). The information found below was derived from materials provided by the American College of Rheumatology (American College of Rheumatology, 2020).

- Exercise is strongly recommended for patients with knee, hip, and/or hand osteoarthritis (OA).
    - Though exercise is strongly recommended for all OA patients; exercise recommendations to patients should focus on the patient's preferences and access, both of which may be important barriers to participation. If a patient does not find a certain form of exercise acceptable or cannot afford

to participate or arrange transportation to participate, he or she is not likely to get any benefit from the suggestion to pursue that exercise.

- Balance exercises are conditionally recommended for patients with knee and/or hip OA.
    - Balance exercises should include those that improve the ability to control and stabilize body position.
- Weight loss is strongly recommended for patients with knee and/or hip OA who are overweight or obese.
    - A loss of ≥5% of body weight can be associated with changes in clinical and mechanistic outcomes; clinically important benefits continue to increase with weight loss of 5 - 10%, 10 - 20%, and >20% of body weight; the efficacy of weight loss for OA symptom management is enhanced by the use of a concomitant exercise program.
- Self-efficacy and self-management programs are strongly recommended for patients with knee, hip, and/or hand OA.
    - Self-efficacy and self-management programs use a multidisciplinary group-based format combining sessions on skill-building (e.g., goal-setting, problem-solving, positive thinking), education about the disease and about medication effects and side effects, joint protection measures, and fitness and exercise goals and approaches; health educators, National Commission for Certification Services -certified fitness instructors, nurses, physical therapists, occupational therapists, physicians, and patient peers may lead the sessions, which can be held in person or online; sessions should generally occur three times weekly.
- Tai chi is strongly recommended for patients with knee and/or hip OA.
    - The efficacy of tai chi may reflect the holistic impact of this mind-body practice on strength, balance, and fall prevention, as well as on depression and self-efficacy.
- Yoga is conditionally recommended for patients with knee OA.
    - Yoga may be helpful in OA through a blend of physical and psychosocial factors.

- Cognitive behavioral therapy (CBT) is conditionally recommended for patients with knee, hip, and/or hand OA.
    - As previously mentioned, cognitive behavioral therapy (CBT) may refer to a type of talk therapy that aims to reduce the symptoms of various types of mental health conditions; there is a well-established body of literature supporting the use of CBT in chronic pain conditions, and CBT may have relevance for the management of OA; trials demonstrated improvement in pain, health-related quality of life, negative mood, fatigue, functional capacity, and disability in conditions other than OA. In OA, limited evidence suggests that CBT may reduce pain.
- Cane use is strongly recommended for patients with knee and/or hip OA in whom disease in one or more joints is causing a sufficiently large impact on ambulation, joint stability, or pain to warrant use of an assistive device; tibiofemoral knee braces are strongly recommended for patients with knee OA in whom disease in one or both knees is causing a sufficiently large impact on ambulation, joint stability, or pain to warrant the use of an assistive device, and who are able to tolerate the associated inconvenience and burden associated with bracing; patellofemoral braces are conditionally recommended for patients with patellofemoral knee OA in whom disease in one or both knees is causing a sufficiently large impact on ambulation, joint stability, or pain to warrant use of an assistive device.
    - Optimal management with knee bracing is likely to require that health care professionals are familiar with the various types of braces and where they are available and have expertise in fitting the braces; there should be a coordination of care between primary care health care professionals, specialists, and providers of braces.
- Kinesiotaping is conditionally recommended for patients with knee and/or first CMC joint OA.
    - Kinesiotaping may refer to a technique designed to work with the body's natural healing process while providing rehabilitative support and stability with kinesio tape. Kinesiotaping permits range of motion of the joint to which it is applied, in contrast to a brace, which maintains the joint in a fixed position.

- Hand orthoses are strongly recommended for patients with first CMC joint OA; hand orthoses are conditionally recommended for patients with OA in other joints of the hand.
    - A variety of mechanical supports are available, including digital orthoses, ring splints, and rigid or neoprene orthoses, some of which are intended for specifically affected joints and some of which support the entire hand; gloves may offer benefit by providing warmth and compression to the joints of the hand.
- Modified shoes are conditionally recommended against in patients with knee and/or hip OA; lateral and medial wedged insoles are conditionally recommended against in patients with knee and/or hip OA.
    - Modifications to shoes can be intended to alter the biomechanics of the lower extremities and the gait; while optimal footwear is likely to be of considerable importance for those individuals with knee and/or hip OA, the available studies do not define the best type of footwear to improve specific outcomes for knee or hip OA.
- Acupuncture is conditionally recommended for patients with knee, hip, and/or hand OA.
    - Positive trials and meta-analyses indicate that acupuncture is effective for analgesia.
- Thermal interventions (locally applied heat or cold) are conditionally recommended for patients with knee, hip, and/or hand OA.
    - Locally applied heat or cold may improve pain.
- Paraffin, an additional method of heat therapy for the hands, is conditionally recommended for patients with hand OA; radiofrequency ablation is conditionally recommended for patients with knee OA (note: radiofrequency ablation may refer to a minimally invasive technique that shrinks the size of tumors, nodules, or other growths in the body using heat).
    - A number of studies have demonstrated potential analgesic benefits with various ablation techniques.

- Massage therapy is conditionally recommended against in patients with knee and/or hip OA.
    - Massage therapy encompasses a number of techniques aimed at affecting muscle and other soft tissue.
- Manual therapy with exercise is conditionally recommended against over exercise alone in patients with knee and/or hip OA.
    - Manual therapy techniques may include manual lymphatic drainage, manual traction, massage, mobilization/manipulation, and passive range of motion and are always used in conjunction with exercise.
- Iontophoresis is conditionally recommended against in patients with first CMC joint OA; pulsed vibration therapy is conditionally recommended against in patients with knee OA; transcutaneous electrical stimulation (TENS) is strongly recommended against in patients with knee and/or hip OA (note: iontophoresis may refer to a process characterized by the use of a voltage gradient on the skin; pulsed vibration therapy may refer to a type of therapy characterized by the use of vibration; transcutaneous electrical stimulation (TENS) may refer to a type of therapy that uses low-voltage electric currents to treat pain).
    - - Data is limited on the aforementioned therapies.
- Topical Nonsteroidal anti-inflammatory drugs (NSAIDs) are strongly recommended for patients with knee OA and conditionally recommended for patients with hand OA.
    - In keeping with the principle that medications with the least systemic exposure (i.e., local therapy) are preferable, topical NSAIDs should be considered prior to use of oral NSAIDs.
- Topical capsaicin is conditionally recommended for patients with knee OA and conditionally recommended against in patients with hand OA.
    - Topical capsaicin is conditionally recommended for treatment of knee OA due to small effect sizes and wide confidence intervals in the available data and literature.
- Oral NSAIDs are strongly recommended for patients with knee, hip, and/or hand OA.

    - Oral NSAIDs remain the mainstay of the pharmacologic management of OA, and their use is strongly recommended; a large number of trials established their short-term efficacy; oral NSAIDs are the initial oral medication of choice in the treatment of OA, regardless of anatomic location, and NSAIDs are recommended over all other available oral medications.

- Intraarticular glucocorticoid injections are strongly recommended for patients with knee and/or hip OA and conditionally recommended for patients with hand OA.
    - Trials of intraarticular glucocorticoid injections have demonstrated short-term efficacy in knee OA.
- Ultrasound guidance for intraarticular glucocorticoid injection is strongly recommended for injection into hip joints.
    - When available, ultrasound guidance for steroid injection may help ensure accurate drug delivery into the joint.
- Intraarticular glucocorticoid injections versus other injections are conditionally recommended for patients with knee, hip, and/or hand OA.
    - In OA generally, intraarticular glucocorticoid injection is conditionally recommended over other forms of intraarticular injection, including hyaluronic acid preparations.
- Acetaminophen is conditionally recommended for patients with knee, hip, and/or hand OA.
    - In clinical trials, the effect sizes for acetaminophen are very small, suggesting that few of those treated experience important benefit, and meta-analysis suggested that the use of acetaminophen as monotherapy may be ineffective.
- Duloxetine is conditionally recommended for patients with knee, hip, and/or hand OA.
    - While studied primarily in the knee, the effects of duloxetine may plausibly be expected to be similar for OA of the hip or hand; while a variety of centrally acting agents (e.g., pregabalin, gabapentin, selective serotonin

reuptake inhibitors, serotonin norepinephrine reuptake inhibitors, and tricyclic antidepressants) have been used in the management of chronic pain, only duloxetine has adequate evidence on which to base recommendations for use in OA; evidence suggests that duloxetine has efficacy in the treatment of OA when used alone or in combination with NSAIDs.

- Tramadol is conditionally recommended for patients with knee, hip, and/or hand OA.
    - Recent work highlighted the very modest level of beneficial effects in the long-term (three months to one year) management of non-cancer pain with opioids; nonetheless, there are circumstances in which tramadol or other opioids may be appropriate in the treatment of OA, including when patients may have contraindications to NSAIDs, find other therapies ineffective, or have no available surgical options.
- Non-tramadol opioids are conditionally recommended against in patients with knee, hand, and/or hip OA with the recognition that they may be used under certain circumstances, particularly when alternatives were exhausted.
    - Evidence suggests very modest benefits of long-term opioid therapy and a high risk of toxicity and dependence; use of the lowest possible doses for the shortest possible length of time is recommended.
- Colchicine is conditionally recommended against in patients with knee, hip, and/or hand OA.
    - Studies suggest analgesic benefit of colchicine in OA.
- Fish oil is conditionally recommended against in patients with knee, hip, and/or hand OA. - Fish oil is the most commonly used dietary supplement in the U.S.
- Vitamin D is conditionally recommended against in patients with knee, hip, and/or hand OA
    - A number of trials in OA demonstrated small effect sizes with vitamin D treatment.
- Bisphosphonates are strongly recommended against in patients with knee, hip, and/or hand OA.

    - Though a single small study of an oral bisphosphonate suggested a potential analgesic benefit in OA, the preponderance of data does not show an improvement in pain or functional outcomes.

- Glucosamine is strongly recommended against in patients with knee, hip, and/or hand OA.

    - Glucosamine is one of the most commonly used dietary supplements in the U.S., and health care professionals should be aware that many patients perceive that glucosamine is efficacious; patients also often perceive that different glucosamine formulas are associated with different degrees of efficacy and seek advice on brands and manufacturers; the potential toxicity of glucosamine is low, though some patients exposed to glucosamine may show elevations in serum glucose levels.

- Chondroitin sulfate is strongly recommended against in patients with knee and/or hip OA as are combination products that include glucosamine and chondroitin sulfate, but is conditionally recommended for patients with hand OA.

    - One trial suggested analgesic efficacy of chondroitin sulfate, without evidence of harm, in hand OA.

- Hydroxychloroquine is strongly recommended against in patients with knee, hip, and/or hand OA.

    - Well-designed RCTs of hydroxychloroquine, conducted in the subset of patients with erosive hand OA, demonstrated no efficacy.

- Methotrexate is strongly recommended against in patients with knee, hip, and/or hand OA.

    - Well-designed RCTs of methotrexate, conducted in the subset of patients with erosive hand OA, demonstrated no efficacy.

- Intraarticular hyaluronic acid injections are conditionally recommended against in patients with knee and/or first CMC joint OA and strongly recommended against in patients with hip OA.

    - In prior systematic reviews, apparent benefits of hyaluronic acid injections in OA were reported.

- Intraarticular botulinum toxin injections are conditionally recommended against in patients with knee and/or hip OA.
    - The small number of trials of intraarticular botulinum toxin treatment in knee or hip OA suggest a lack of efficacy.
- Prolotherapy is conditionally recommended against in patients with knee and/or hip OA (note: prolotherapy may refer to a non-surgical injection procedure used to relieve pain).
    - A limited number of trials involving a small number of participants indicated small effect sizes of prolotherapy in knee or hip OA.
- Platelet-rich plasma treatment is strongly recommended against in patients with knee and/or hip OA.
    - There is concern regarding the heterogeneity and lack of standardization in available preparations of platelet-rich plasma, as well as techniques used, making it difficult to identify exactly what is being injected.
- Stem cell injections are strongly recommended against in patients with knee and/or hip OA.
    - There is concern regarding the heterogeneity and lack of standardization in available preparations of stem cell injections, as well as techniques used; this treatment has not been evaluated in hand OA.
- Tumor necrosis factor inhibitors and interleukin-1 receptor antagonists are strongly recommended against in patients with knee, hip, and/or hand OA.
    - Tumor necrosis factor inhibitors and interleukin-1 receptor antagonists have been studied in trials using both subcutaneous and intraarticular routes of administration; efficacy was not demonstrated, including in erosive hand OA; given their known risks of toxicity, their use is not recommended for any form of OA.

Animal-Assisted Therapy Guidelines

The American Veterinary Medical Association (AVMA) provides guidelines for animal-assisted interventions, such as animal-assisted therapy. Specific AVMA guidelines may be

found below. The information found below was derived from materials provided by the AVMA (American Veterinary Medical Association [AVMA], 2022).

- For every animal-assisted intervention (e.g., animal-assisted therapy) a Responsible Person (RP), must be responsible for the health, behavior, and welfare of the animal(s) involved in these programs. This person is critically important to the wellness and welfare of the animal.

  While the owner bears ultimate responsibility, the Responsible Person may be a handler or other authorized agent. In the case of a resident animal, the RP may be one or more staff members to whom these responsibilities have been specifically assigned.

- A wellness program should be designed to provide reasonable assurance that animals are: healthy, behaviorally appropriate for the program, and protected from being harmed by participation in the program.

- A wellness program must include regular veterinary care.

- The animals should be continuously monitored by the RP and periodically monitored by the veterinarian for the purpose of developing a continuum of care that will help ensure the continued health and welfare of the animal. Total wellness encompasses the physical and behavioral attributes of the animal, as well as the characteristics of interactions between people and animals participating in the program.

- An effective animal wellness program should include:

  - A close partnership and frequent communication between the veterinarian, RP, licensed therapist(s) responsible for the human participant (e.g., occupational and physical therapists), and, where necessary, a qualified animal behaviorist.

  - Information provided to the veterinarian about what exposures the animal will experience, the types of tasks they will be expected to perform, and the physical and behavioral characteristics of the species to be used in the animal-assisted therapy program.

  - A mechanism to permit the veterinarian to periodically assess the physical and behavioral health and wellbeing of the animal. This will include regularly scheduled examinations and preventive care. In addition to these

regular, routine wellness visits, the animal will require access to veterinary care on an as needed basis.

- The following should be provided during routine visits: vaccination; parasite prevention and control; selected screening for common diseases and conditions; behavioral evaluation; preventive medical, dental, nutritional, and behavioral care, including advice concerning environmental enrichment; and an assessment of genetic health, as appropriate.

- Flexibility and tailoring to fit the needs of the individual animal, and modification to accommodate the changing needs of the animal as they age and participate in animal-assisted therapy programs. All factors, including species, age, breed, temperament, and any risk factors that could jeopardize the animal's health and welfare, should be considered. Up-to-date records should be kept in relation to each participating animal, which includes an ongoing problem list for quick reference by another veterinary professional.

- Animals participating only at appropriate ages, taking into account physical risks, behavioral appropriateness, and stressors that may adversely affect young or elderly animals in these programs (e.g., dogs and cats participating in these programs shall be at least six months of age and have been appropriately socialized and trained for participation).

- Sufficient surveillance to detect any decline in animal wellness which may manifest itself as a physical or behavioral change.

- The RP shares the results of an animal's medical and behavioral evaluations with regulatory agencies that have legal oversight for the target populations of animal-assisted therapy programs.

- Information concerning an individual animal’s health, well-being, and approved animal-assisted therapy roles readily accessible to all members of a household or facility so that everyone can be involved in maintaining the health and welfare of the animal(s) involved in animal-assisted therapy (note: sharing recommendations and encouraging others to promote an animal’s well-being does not eliminate the need for, or duties of, the RP as primary caregiver).

- Wellness visits should include a thorough physical examination that includes assessment of nutritional and oral health, screening for selected infectious and parasitic diseases, evaluation of behavior and lifestyle factors related to the animal and others in the household or facility, a reproductive health assessment, and an evaluation for congenital diseases and/or conditions.

- Animals should be vaccinated for rabies (if appropriate for that species) in accordance with local and state ordinances or regulations. Other vaccinations should be given at appropriate intervals, as determined by the veterinarian, to be in the best interest of the animal, its RP, and the individuals with whom the animal will be in contact.

- Internal and external parasite prevention and control programs should be implemented in accordance with local risks and the life stage of the animal. The practitioner should keep in mind that these animals might not be candidates for certain topical insecticides because of the degree of handling and petting associated with programs or they may need to be temporarily withdrawn from these activities.

- Disabilities should not necessarily eliminate an animal from participation in animal-assisted therapy programs. For example, animals that are amputees or deaf, if otherwise healthy, can have a positive impact on special populations. However, the animal-assisted therapy activities should not be of a type that exacerbates the animal's disabilities, and the ability that is lacking must not reduce the safety or effectiveness of the interaction with the target population.

  Participation of animals having conditions that may affect their mobility should be evaluated in light of the physical facilities of the animal-assisted therapy program (e.g., a dog with hip dysplasia may have difficulty maneuvering stairs or long hallways). Animals who are disabled must be monitored closely by the RP to ensure compliance with these requirements.

- Screening tests should be selected on the basis of their ability to identify medical problems in these animals and to reduce bi-directional risks of transmission of potential pathogens between animals and humans. Results of screening tests should be evaluated with regard to realistic risks to humans and animals. Appropriate treatment and risk management should be instituted if needed. Interactions of animals with immunocompromised individuals may justify the use

of certain screening tests that would not be necessary if those animals were only interacting with immunocompetent populations.

- The RP should be provided with information on maintaining the animal's hair coat and nail quality and should be taught to do a basic assessment of their animal's skin condition.
- Recommendations for health maintenance should include: behavior management, daily exercise, play, diet, preventive dental care, and the potential advantages of spaying/neutering in selected species.
- Medications administered to participating animals should be reviewed for their appropriateness (e.g., animals treated with immunosuppressive medications may be at greater risk of contracting infectious agents).
- Animals' behaviors that could be considered inappropriate should be assessed in the context of RP expectations and tolerances (e.g., some RPs expect dogs to chew and cats to scratch). Behaviors tolerated in the home might not be acceptable in long-term care facilities, and the RP should be counseled to this effect.
- Animals' behaviors should be evaluated in the context of the general physical and behavioral health of the animal, as well as with respect to the animal's age and any preexisting conditions (e.g., aggression may be a consequence of irritability associated with a medical condition).

  Changes in elimination frequency or volume may be associated with an underlying medical cause or may be an effect of aging.
- The RP must ensure that resident animals are provided regular opportunities for play, quiet time, and rest separate from activities associated with animal-assisted therapy.
- The RP and facility residents should be educated about behavioral signs that might indicate that an animal is not enjoying an activity associated with animal-assisted therapy. The RP and residents must carefully observe the animal's body language to detect signs of stress, discomfort, anxiety, or fear. They must also be aware of changes in sleep and eating patterns that could reflect excess stress or lack of proper care associated with the animal-assisted therapy program. The appearance of such signs should be discussed with a veterinarian to determine appropriate interventions, such as: including more frequent breaks, a "vacation"

for the animal, or discontinuing its participation depending on the factors associated with stress. Intervention options may need to be explored with a person knowledgeable in animal behavior and the operation of animal-assisted activities, animal-assisted therapy, and resident animal programs to determine what is feasible.

- Animals should be trained to not pick things up off the floor unless instructed by the RP. In some facilities, powerful human medications or other inappropriate substances may accidentally fall to the floor or may be unintentionally/ intentionally offered to these animals.
- Within health care facilities with animal-assisted therapy programs, there should be a coding system to indicate rooms that should not be entered because their occupants do not want to interact with animals or because of a greater risk of contracting or transmitting an infectious disease.
- All involved parties, including the RP, should be aware that therapy animals may need to be retired because of their age, reduced enthusiasm for their job, or physical or behavioral concerns.

Section 3 Summary

Health care administrators should utilize guidelines, such as the ones found above, to develop recreational therapy programs that meet the specific needs of their health care organizations. Health care administrators should work to continually revise recreational therapy programs to remain up to date with relevant guidelines and to, ultimately, meet the needs of residents.

Section 3 Key Concepts

- Health care administrators should utilize relevant guidelines to develop recreational therapy programs that meet the specific needs of their health care organizations.

Section 3 Key Terms

Arthritis - inflammation or the swelling of one or more joints

Activity-friendly route - a route that is a direct and convenient connection with everyday destinations, offering physical protection from cars, and making it easy to cross the street and engage in physical activity

Everyday destinations - places people can get to from where they live by walking, bicycling, or public transit

Comprehensive plan (also called the general plan or community master plan) - the official statement of a local government establishing policies for its long-term development

Safe routes approach - a comprehensive approach to improve safety and security for everyone walking, bicycling, and wheelchair rolling

Kinesiotaping - a technique designed to work with the body's natural healing process while providing rehabilitative support and stability with kinesio tape

Radiofrequency ablation - a minimally invasive technique that shrinks the size of tumors, nodules, or other growths in the body using heat

Iontophoresis - a process characterized by the use of a voltage gradient on the skin

Pulsed vibration therapy - a type of therapy characterized by the use of vibration

Transcutaneous electrical stimulation (TENS) - a type of therapy that uses low-voltage electric currents to treat pain

Prolotherapy - a non-surgical injection procedure used to relieve pain

Section 3: Personal Reflection Question

How can health care administrators use the guidelines presented above to develop recreational therapy programs?

Conclusion

Recreational therapy can benefit residents of nursing homes and assisted living facilities. Therefore, health care administrators should include recreational therapy in resident care. Health care administrators may use relevant guidelines to develop recreational therapy programs that meet the specific needs of their health care organizations. Finally,

health care administrators should remain up to date on relevant studies, recommendations, and guidelines to optimize recreational therapy programs and, ultimately, resident care.

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