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Social Determinants of Health

Introduction

Social determinants of health apply to patients across the lifespan, with any medical conditions, and in any practice setting. Evidence shows that social determinants of health have a major impact on a person's well-being and quality of life. For this reason, OTs and many other healthcare professionals are trained to assess the social determinants of health that pertain to each of their patients. By looking at social determinants of health in all situations, therapists are not only better equipped to understand the full scope of their patient's health concerns, but they are also able to more effectively address those concerns. Due to the person-centered nature of our profession and OT's focus on client factors and natural contexts to design interventions, these determinants are highly relevant. This makes it essential for therapists to understand what social determinants of health are and how they can impact OT practice.

Section 1: SDOH Definitions and Connection to OT Practice Framework

References: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21

Social determinants of health (SDOH) are defined as any environmental conditions that impact a person. SDOH encompasses the physical contexts in which people learn, live, are born, work, play, worship, and develop. This term also includes a person's individual behaviors and character traits as well as the social and economic environment they are part of. As a result, SDOH impacts a wide breadth of patient outcomes related to health, quality-of-life, function, and disease risk. Due to the nature of SDOH, these factors are also heavily involved in health inequities and disparities.

Research shows that relevant environments, health behaviors, and socioeconomic factors (which are some of the biggest social determinants) influence up to 80% of a person's health, which is quite significant. For this reason, it should be standard practice for nearly all healthcare professionals to incorporate SDOH into treatment to address a range of patient concerns. While part of the work therapists do surrounding SDOH involves the education and promotion of healthy choices, solving health disparities is a large and complex problem our society faces. Public health organizations must operate on a large scale to partner with specialists in social services such as housing, transportation, and education. This allows multiple sectors to come together and improve environmental conditions for all.

On a similarly large scale, social determinants of health are a major part of Healthy People 2030. This initiative first took place in 1980 and was created by the U.S. Department of Health and Human Services along with the Office of Disease Prevention and Health Promotion. These organizations jointly set long-term objectives to improve the nation's well-being during the coming 10 years. There have been new iterations of Healthy People every 10 years since that time, and the previous decade's data has been used to inform goals for the next. All targets are intended to address public health priorities that impact individuals, communities, and organizations. Since Healthy People objectives are long-term, they serve as a guideline for this process so the aforementioned parties can create short-term goals that align with their needs. Healthy People is also useful in helping these individuals, communities, and organizations to identify populations and areas that demonstrate the greatest need. This assists with resource allocation and planning efforts.

Healthy People 2030 set forth five main objectives that have the most influence on the well-being of our society:

- Economic Stability

- Education Access and Quality
- Healthcare Access and Quality
- Neighborhood and Built Environment
- Social and Community Context

Within each of these areas, there are many smaller components to take into consideration:

- Economic Stability
    - Debt
    - Employment
    - Expenses
    - External support
    - Income
    - Medical bills
    - Working conditions
- Education Access and Quality
    - Early childhood education
    - Higher education
    - Language and literacy skills
    - Vocational training
- Healthcare Access and Quality

    - Affordable, comprehensible health services
    - Cultural competency and communication skills of providers
    - Early childhood development
    - Health insurance coverage
    - Provider availability
    - Quality of care
- Neighborhood and Built Environment
    - Access to land
    - Access to nutritious foods and physical activity opportunities
    - Basic amenities such as reliable water, heat, electricity, and phone service
    - Clean air and water
    - Geographic distance from community fixtures such as doctors, emergency services, library, town hall, post office, and stores
    - Neighborhood access (walkability)
    - Pedestrian safety
    - Playgrounds and parks
    - Safe housing
    - Safe streets, bridges, and highways
    - Transportation
- Social and Community Context

- Community engagement
- Community stress
- Participation in customs and traditions that are important to people and their families
- Racism and discrimination
- Social integration
- Social protection
- Structural conflict
- Violence

Health Disparities and Inequities

When individuals do not have equal access to the above social determinants, this results in what are known as health disparities. Health disparities are events experienced by socially marginalized populations that stem from avoidable differences in injury, opportunities, violence, and the overall burden of health conditions. Health disparities are known to prevent populations from achieving optimal well-being and health outcomes. When health disparities are caused by unfairness or another form of injustice, they are known as health inequities.

Not all health differences between populations are attributed to health disparities. For example, athletes in certain sports (namely football, lacrosse, soccer, skiing, and basketball) experience more anterior cruciate ligament (ACL) injuries than the general population does. This is simply due to the motions those athletes must engage in while practicing and playing their sport of choice. There is not always a way for athletes to prevent ACL injuries, nor are athletes considered a socially

marginalized group. Therefore, health disparities are not the reason a basketball player may experience ACL injuries more frequently than a professional dancer does. A statistic that is indicative of a health disparity, on the other hand, is that Native Americans experience almost three times the risk of diabetes when compared to Caucasian individuals. This disparity is present due to health inequities such as lack of access to care for this race.

Health Disparities and the OT Practice Framework

The Occupational Therapy Practice Framework addresses health disparities and health inequities along with the impact they have on the treatment process. The Practice Framework and several other pieces of OT literature detail how occupational engagement and occupational choice are affected by four factors: those that are cultural, economic, psychological, and social. Social determinants of health exist at the intersection of these factors. There are several areas of the Practice Framework that also relate directly to social determinants of health. Firstly, this document outlines the sociocultural determinants of occupation. There are concrete determinants in this category, including family, community groups, and society. There are also more amorphous sociocultural factors: beliefs, culture, spirituality, meaning, and balance, along with those that are more organizational in nature, such as habits, rituals, roles, routines, and temporal factors. In addition, environmental determinants of occupation include attitudes, barriers, access, accommodations, ecology, expectations, environmental adaptations, built environments, disability supports, systems and policies, social support, stigma, tools and technology, and micro-, meso-, and macro-environments. Each of these can serve as a support for individuals and their health, or a hindrance, which is why they are mentioned in much of the OT literature.

Over the years, there have been more and more opportunities for occupational therapists to get involved in advocacy efforts such as policy formation and health education. As a result, there has been more literature about social determinants of health as a whole and the various occupational therapy roles that can be used to address these determinants. Some dated occupational therapy literature has found that the healthcare environment often contributes to health disparities due to components and practices such as communication barriers, limited access to services, convoluted insurance benefits explanations, and complex bureaucratic processes. This same research also suggests that clinical encounters themselves contribute to certain health disparities through factors such as time constraints; clinical uncertainty from the provider; preconceived beliefs; incomplete or missing information in medical records; stereotypes, biases, and prejudices; and high cognitive demands during all aspects of patient care (e.g. attention, working memory, clinical judgment, etc.).

Since the environment is a large part of health disparities, this literature also outlined four community clusters as potential areas where OTs can make an impact. Some of these clusters align with the SDOH identified by the Healthy People Initiatives:

- Built environments
    - Creating and enabling access to activity-promoting environments that offer housing, health services, nutritious food, transportation, environmental quality, and appearance
- Services and institutions
    - Facilitating access to literacy, education, public safety, and all forms of medical care
- Social capital

    - Building cumulative efficacy
    - Enabling the fulfillment of group and individual needs to create trust, belonging, and social cohesion
    - Encouraging civic engagement
    - Promoting positive behavioral, social, and gender norms
- Structural factors
    - Creating cultural and artistic opportunities
    - Identifying and improving access to community-based organizations and economic capital
    - Smoothing out ethnic and race relations

All occupational therapy literature on the topic of social determinants of health and health disparities states that OT providers are knowledgeable and skilled in ways to address the negative effects of SDOH on their patients. In addition, American Occupational Therapy Association (AOTA) position statements over the years have noted it is an OT provider's professional responsibility to intervene in a way that addresses health disparities and health inequities. AOTA also highlights that it is part of the Occupational Therapy Code of Ethics for OT clinicians to make strides that lessen or eliminate health disparities impacting their patients and communities. In particular, social determinants of health directly align with the fourth principle, social justice, which states that OT personnel must provide all services in an equitable and fair manner. Social justice entails providers upholding all moral and legal principles to respect the legal rights of anyone who receives OT services. Justice also involves building and supporting inclusive, diverse communities that are structured so their members can function and flourish regardless of sexual orientation, gender identity, age, origin, race, religion,

socioeconomic status, abilities, and any other attributes. This also ties into AOTA's Centennial Vision, as diversity is fundamental to the growth, recognition, and longevity of our profession. Recent research outlines the importance of providers going beyond recognizing the need for diversity and taking more steps to develop comprehensive action plans that address the need for diversity, which is a topic that influences patient satisfaction, client engagement, individual well-being, and professional roles.

There has also been discussion about the moral importance of addressing social determinants of health. Some sources state that protecting an individual's or a community's ability to function properly also shields the opportunities that are currently before them and will be before them in the future. By addressing social determinants of health, OT providers are staying true to the meaning of healthcare. At its core, healthcare is intended to preserve peoples' ability to engage in social, political, and economic aspects of society as they choose, so therapists who keep this in mind, in turn, sustain their patients' roles as fully-participating citizens. The correlation between opportunity preservation and healthcare is a great example of how distributive justice should play a part in guiding and reforming healthcare system design to operate on the basis of equal opportunities.

A range of OT roles can assist in promoting social justice and addressing SDOH. This includes direct occupational therapy services, OT's role in promotion of health and wellness (which pertains to needs related and unrelated to disability), and occupational therapy action. Occupational therapy action is characterized by any steps that an OT provider may take using critical reasoning and OT knowledge and experience. Efforts taken through an OT action lens may not fall directly under an OT's scope of practice within their state or at a certain organization. However, therapists should always ensure these duties do not encroach on another discipline's work. One example of occupational therapy action includes organizing

and helping with outreach for early screenings and other preventive measures for at-risk groups. Occupational therapy action also involves efforts in the realm of health literacy. OTs who do health literacy work ensure that all health-related education given to OT recipients is in alignment with their cognitive, social, verbal, and literacy skills, and is also sensitive to their culture.

SDOH also intersects with several occupational therapy practice models and frameworks. One of these is the **Canadian Model of Occupational Performance (CMOP)**. The central concepts of CMOP include social justice along with enablement and the environment. This model characterizes social justice as a vision to be utilized in everyday practice. CMOP states that social justice exists when people can identify, categorize, and participate in meaningful occupations that better their health and quality-of-life. In addition, the **Model of Human Occupation (MOHO)** has a lot of crossover with social determinants of health. MOHO views human occupation as a dynamic concept that can be explained using systems theory, which also governs SDOH and the interrelated nature of all societal factors. The main MOHO concepts are performance capacity, volition, the environment, and habituation. The latter of these are strongly correlated with SDOH, as they dictate access and availability to occupations within someone's surroundings. As part of MOHO, the environment is also inclusive of social, cultural, physical, and political demands on individuals. While researchers do not explicitly reference social justice in MOHO literature, it is indirectly discussed quite a bit. A lesser-known model that also indirectly pertains to SDOH is the **Doing-Being-Becoming framework**. In this context, doing means occupational performance, which builds their identity, helps them interact with others, and shapes the society they are part of. Being refers to someone acting as their true self, including but not limited to reflection, role identification, and role maintenance. Lastly, becoming is characterized as the definition and redefinition of someone's values and priorities along with transformation into their new roles.

This evolution is considered ongoing. All aspects of this framework relate to a person's ability to achieve competency and develop into a social being.

Outside of the occupational therapy field, there are other proposed frameworks that various disciplines can use to guide their work with social determinants of health. One is the **World Health Organization (WHO) Conceptual Framework**, which was developed as an action-oriented way to promote policy change as it pertains to social determinants of health. This framework aims to identify social determinants, outline the interplay between determinants, discuss the mechanisms that cause determinants to become inequities, and map policy entry points that can be used in the social determinant intervention process. The WHO's framework consists of several elements: the socioeconomic and political context, structural determinants and socioeconomic positioning (including education, occupation, income, social class, gender, race/ethnicity, and links between each of these demographics), intermediary determinants (material circumstances, social-environmental or psychosocial circumstances, and behavioral/biological factors).

The Danaher Framework addresses SDOH with a strong emphasis on community efforts. The Danaher Framework defines the community sector as the large breadth of non-profits who collaborate with the community to serve that same context and meet local needs. For this framework to be deemed effective, the aforementioned community must be responsive and engaging in mobilizing local individuals to take action and influence policy change. The basis behind this framework is a heavy overlap between population health and health disparities. The **Frieden Framework for Improving Public Health** weighs the potential impact of addressing SDOH with labor intensity in order to instill change. Frieden uses a 5-tier pyramid with the base representing interventions that stand to make the biggest impact. Each ascending tier outlines other efforts: context modification to ensure that all default decisions are healthier, low-contact clinical interventions that result in long-term protection from SDOH, continual direct services, and

counseling on health-related topics. The base of the pyramid is intended to be more impactful than the top parts because those efforts are broader in nature and rely more on the work of groups. The **Bay Area Regional Health Inequities Initiative (BARHII)** is another conceptual framework that highlights the detailed link between social inequities and a person's health. The BARHII is unique in that it pays special attention to interventions that do not traditionally fall under the purview of social service and public health agencies. The BARHII was designed with the intention of being used by professionals from any discipline, as it helps with program planning and upstream decision-making.

Lastly, the **Yoder Framework for Dental Education** is designed for use within the dental profession, but its focus on service learning and ability to be carried over to other disciplines makes it worth mentioning. Yoder details ten specific components at the core of service learning. These ten components are broken into four categories: scholarship, partnerships, programs, and growth. The Yoder Framework for Dental Education breaks scholarship down into community-engaged scholarship and academic links. Partnerships involve sustained community partnerships, broad preparation, and service-learning objectives. Programs include sustained service and reciprocal learning. Growth consists of community engagement, guided reflection, and evaluation/improvement.

Providers looking specifically for SDOH frameworks that are OT in nature can look toward some of the foundational frameworks for guidance. The Occupational Adaptation (OA) Model and Ecology of Human Performance both rely heavily on the impact of social determinants. OA uses occupation as a way to create a certain product, and many social determinants can either support or prevent the formation of that product. Ecology of Human Performance posits that the use of a contextual lens in combination with someone's strengths and skills produces what is called a performance range. The contextual point-of-view stems from an individual's beliefs and personal experiences based on their cultural, social, and

physical factors. As a result, there is extensive variation in the contextual lens, as well as other factors part of this model. These are merely two examples that dictate the importance of social determinants at all points in the occupational therapy process.

While only some of these SDOH frameworks are specific to the OT field, providers can use any relevant foundational basis to guide their work with social determinants of health. In some cases, a combination of approaches may be the best, as that allows for more person-centered work that fully addresses the needs of individuals and their communities. Either way, therapists must ensure they complete research to inform the decisions they make about social determinant tools and resources.

Section 1 Personal Reflection

How might a therapist use MOHO to structure occupational therapy action when working at a non-profit agency that assists new mothers in the local community?

Section 1 Key Words

Distributive justice - The concept of perceived equality in the ways which costs and rewards are shared across individuals or group members; this concept is associated with social psychology

Health disparities - Events experienced by socially marginalized groups that are caused by avoidable differences in opportunities, violence, injury, and the overall burden of health conditions

Health inequities - Events experienced by socially marginalized populations that are caused by unfairness or other types of injustice

Intermediary determinants - A subcategory of social determinants of health that are directly affected by structural determinants of health; some examples of intermediary determinants include health behavior, material circumstances, living and working conditions, and access to medical care, as laws impact each of these areas

Occupational therapy action - Aside from direct services, any work an occupational therapist does that involves OT knowledge and experience plus critical reasoning; it's possible for occupational therapy action efforts to fall outside scope of practice within their state or the organization where they are employed, as long as the work does not interfere with another discipline's scope of practice

Structural determinants - A subcategory of social determinants of health defined as any economic, political, and/or social mechanisms that create inequalities between classes; one of the biggest examples of a structural determinant is the legislative processes and economic policies that impact employment, housing, and education

Systems theory - The idea that every system (natural or artificial) not only relates to one another, but is also interdependent on other systems; this theory also indicates that all systems are part of an overarching, more comprehensive system and are considered cohesive; systems theory is very general and can be applied to any discipline in some way, shape, or form

Upstream decision-making - Decisions that are made prior to the implementation phase, before any requirements are set forth

Section 2: Impact of Social Determinants on Healthcare as a Whole

References: 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38

As we've mentioned, social determinants of health are not only embedded within many aspects of the OT Practice Framework, but also several models we use to guide care. So it's easy to see why OTs must identify and address SDOH so they don't negatively impact the treatment process.

Individuals are at risk of experiencing a range of adverse effects as a result of unmanaged SDOH. There are many negative health outcomes that may stem from each SDOH category:

- Lack of Economic Stability
    - A higher risk of premature mortality due to long-term stress
    - Engaging in risky and/or illegal activities to gain more income and attempt to meet expenses
    - Engaging in risky health behaviors such as skipping non-covered health screenings due to inability to afford copayment, declining surgeries or other medical procedures to manage acute or chronic health concerns, or turning to smoking, alcohol, unhealthy food, etc. in an attempt to manage stress
    - Fear of stigma related to debt and economic instability
    - Increased conflict between parents and children stemming from parents having multiple jobs, working evening shifts, and secondary effects related to interpersonal conflict within the workplace

    - Increased mental health concerns associated with unemployment, underemployment, and poor working conditions, including but not limited to anxiety, isolation, low self-esteem, hopelessness, helplessness, demoralization, somatization, and depression
    - Increased economic and work-related stress leading to the development of chronic health conditions (including but not limited to hypertension, obesity, migraines, diabetes, asthma, insomnia, cardiovascular disease, chronic fatigue, and immune conditions)
    - Increased risk of health incidents such as heart attack and stroke due to the effects of long-term stress
    - Lower levels of subjective health
    - Risk of injury at work due to poor working conditions:
        - Cumulative stress injuries due to repetitive lifting, pushing or pulling heavy items, and using unergonomic office equipment
        - Hearing loss due to noisy work environments that lack protective equipment
        - Respiratory conditions due to long-term chemical exposure
        - Occupational burnout
    - Unstable housing or homelessness
- Education Access and Quality
    - Greater risk of obesity, substance use disorders, and injury (both intentional and unintentional) related to lack of access to education

    - Greater risk of preventable medical errors, lower confidence, unstable therapeutic rapport with providers, higher dissatisfaction levels with healthcare services, low treatment compliance, failure to seek out healthcare services for routine or emergent medical concerns, additional treatment costs due to this lack of compliance with care, and longer hospital stays, all stemming from low literacy skills and language barriers
    - Less impulse control and resilience stemming from lower education levels
    - Lower earning potential and associated mental health concerns such as low self-esteem, depression, anxiety
    - Lower socioeconomic status (SES) and life expectancy resulting from lack of access to higher education and/or vocational training
    - More exposure to daily stressors and less ability to cope with those and other major stressors
    - Normative behavioral, cognitive, social, and sensory processing delays due to lack of early childhood education, inadequate stimulation, and physically and emotionally unsupportive contexts
- Healthcare Access and Quality
    - Greater risk of children developing lasting or worsening chronic conditions as they mature if they are not able to access early intervention
    - Higher costs and service utilization levels stemming from the need for more extensive treatment later on in disease progression

    - Higher mortality rates, lower access to healthcare services, and poorer quality of care when individuals do receive services due to lack of insurance
    - Longer wait times, delayed care, less ability for early detection of chronic health conditions, less likelihood of receiving preventive screenings and other routine check-ins, and more patient dissatisfaction due to lack of provider availability
    - Lower levels of participation, respect, understanding, and patient safety in healthcare services when there is a lack of cultural competency from providers
    - Poor medication and treatment adherence, inefficient resource utilization, higher rates of patient injury, and increased medical errors stemming from poor provider communication
- Neighborhood and Built Environment
    - Allergic reactions, cancer, and/or damage to the central nervous system, reproductive system, respiratory system, and kidneys resulting from exposure to asbestos, lead, mold, and other environmental toxins within the home and other poorly cared for community structures
    - Damage to the central nervous system, gastrointestinal tract, and/or reproductive system as well as a higher risk of E. coli, giardiasis, cholera, dysentery, typhoid fever, salmonellosis, and Hepatitis A due to contaminated drinking water
    - Increased risk of cancer, obesity, heart disease, diabetes, hypertension, and mental health concerns due to low activity levels and lack of access to safe playgrounds/parks

    - Increased risk of hypothermia, dehydration, heat exhaustion, contact burns, poor hygiene, and delayed emergency intervention due to lack of access to basic amenities such as reliable heat, water, electricity, and phone service
    - Lack of pedestrian safety, unsafe or inaccessible public transportation, and poorly maintained sidewalks, roads, and bridges leading city residents to be unable to walk or otherwise get to local places such as the grocery store and doctor without the use of a car
    - Risk of malnutrition, obesity, hypertension, diabetes, and other diet-related conditions stemming from limited access to nutritious foods
    - Mental and physical stress related to overcrowding, both within the confines of homes and due to houses being too close together in large cities
- Social and Community Context
    - Isolation, depression, anxiety, fearfulness, and other mental health concerns related to lack of belonging, poor community engagement, inefficient social support, and a history or present occurrences of discrimination
    - Poor sense of identity due to being unable to participate in traditions, rituals, routines, and other standard practices associated with their culture, family, and/or religion
    - Unequal access to opportunities in social settings as well as the employment, education, and housing sectors due to discrimination and racism

As you can see, there are many small scale and large scale variables within each SDOH that impact a person's well-being and health outcomes. Additionally, since there is overlap between many of these factors, providers may have difficulty addressing each without first obtaining a full picture of their patients' lives. For example, after initial questioning and screening, a therapist may assume a factory worker's reluctance to go to their job each day is due to fear of injury. However, upon digging deeper, the therapist may find that the worker's education status and qualifications limit them to shift work. This shift work is causing interpersonal difficulties within his family as well as insomnia that is leading to productivity changes, which place his job at risk. There are often many layers to social determinants of health, which is why well-rounded assessment and intervention is critical.

Interdisciplinary Research on SDOH

Due to the reach of SDOH collectively, many healthcare disciplines have performed research on social determinants as well as the impact they have on patients with certain backgrounds and the efficacy of various approaches used in practice. This has come from a surge of SDOH awareness over the past two decades. Based on this research, many healthcare disciplines have made it standard practice to complete risk screenings for SDOH, as these factors have been connected with poorer health outcomes, less adherence to treatment plans, and higher healthcare costs for all. Regardless of the amount of research conducted in this area, there still seems to be variable practices surrounding SDOH in healthcare. Any existing efforts are often chosen and implemented on an as-needed basis. For example, if a patient continually misses outpatient OT due to not having reliable transportation and the therapist is able to confirm this is the reason for their absence, this might lead a therapist to perform a screener to assess SDOH.

Nursing journals in particular have attempted to pinpoint the barriers to screening for SDOH in a more regimented manner. Research from Tiase et al. (2022) showed that patient acceptance of screening is unlikely to be the primary reason SDOH is not included in nursing workflows. Rather, logistical factors - such as lack of referrals, ineffective data collection, poor workflows, and inability to implement screening tools - are more often to blame. Nursing shortages have also played a role in these concerns, as there are more breaks in the continuity of care due to overly taxed providers who often lack time to complete all of their duties. The National Committee for Quality Assurance (NCQA) created a Social Determinants of Health Resource Guide to help all medical professionals with workflows surrounding SDOH. This guide sets forth four main workflows that involve discerning what to assess, who to assess, and specific questions that must be asked and answered along with how to implement the assessment within the scope of one's discipline.

Other pieces of nursing research have discussed potential ways to ameliorate the lack of focus on SDOH in standard nursing practices. The American Association of Colleges of Nursing discusses the importance of educating new nurses on SDOH at the academic level. This can be done by offering a wide breadth of learning opportunities across both the clinic and the classroom, including competency training in technical software; education on cultural humility and implicit bias; engaging in multidisciplinary partnerships; performing case studies and problem-based learning examples; participating in clinical simulations; and conducting research projects. This same piece of research posits that facilitating diversity in academic programs and adding faculty development opportunities can aid in better addressing SDOH.

In a text entitled *The Future of Nursing 2020-2030*, the National Academies of Sciences, Engineering, and Medicine (2021) discusses the lesser-mentioned positive side of social determinants of health. These include paths such as earning

a higher income, which can lead someone to have access to a wider range of health services and experience improved health outcomes for any concerns they seek care for. Another path is seeking and receiving higher education, which affords someone greater knowledge about their health, the ability to make informed health decisions without assistance, and - again - better health outcomes. These all also have an impact on the healthcare process and someone's ability to benefit from medical services. As such, these pathways should be used to inform the process of addressing alternative determinants. This same text highlights the idea that **all** healthcare systems should involve nursing professionals in the design, creation, interpretation, and application of SDOH initiatives for the best outcomes. This recommendation is supplemented by encouraging stakeholders to support the nursing workforce and their ability to respond to public health and other crises intertwined with SDOH. Many of these findings can not only be applied to the OT field, but are also mirrored in research conducted by other professions.

Physical therapy research by Giuffre et al. (2019) mentions the use of a Population-Based Practice (PBP) Framework as a way to help PTs grasp various intervention levels and types. As in many healthcare disciplines, direct PT services can take place on an individual basis as well as at the systems and community level through screening, referrals, outreach, consultation, policy development, advocacy, and more. Such research is intended to motivate physical therapists toward diversity within the work they do. Physical therapists have also conducted research on social determinants that are more closely associated with seeking PT services. A large systematic review from Braaten et al. (2021) found that highly educated, gainfully employed, non-Hispanic white females living in urban areas with consistently available transportation, high socioeconomic statuses, and private insurance are most likely to receive PT. This excludes quite a few key demographics from ever receiving services simply due to not having access, which

demonstrates the need for therapists to remedy SDOH both as part of treatment and outside of direct services. Occupational therapists would benefit from similar information not only to expand their reach, but also to help improve access to care for all.

There is also some research on SDOH within internal medicine, specifically pertaining to how effectively undergraduate physician education portrayed the importance of social determinants in the field. Lewis et al. (2020) found that, while 41% of medical schools expressed that SDOH were a high priority within their curricula, 34% reported it was a low priority for them. Respondents also noted that learning opportunities for SDOH were more commonly incorporated in the first and second undergraduate years rather than the last two. This suggests that SDOH presently becomes less of a priority as students perform clinical rotations, though that is when SDOH-related practices are arguably the most critical.

Position statements from PT organizations also emphasize the importance of upstream factors on the treatment process. In particular, the Journal of Orthopaedic & Sports Physical Therapy penned a viewpoint piece stating that, while there is still a large gap in research on the collective effects of SDOH on musculoskeletal outcomes, SDOH “exert tremendous effects on physical therapy outcomes in [both] practice and research.” Authors also noted that their impact on health behavior is truly essential to PTs providing musculoskeletal recovery that has lasting results.

So, there appears to be slightly more evidence in other healthcare professions regarding the effects of failing to address SDOH and the present state of SDOH incorporation into various medical services. However, the majority of the findings are in alignment with those conducted by OT researchers and highlight the importance of SDOH in all aspects of care.

Section 2 Personal Reflection

What interplay might a therapist notice between access to quality education and low economic stability? How might intervention in one area improve outcomes in the other and vice versa?

Section 3: Role of OT in SDOH-related Change

References: 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54

Occupational therapists can use a range of screening tools and other assessments to take a closer look at the SDOH that affect their patients. Within the pediatric population, adverse childhood experiences (ACE) are one of the most significant forms that SDOH can take. For this reason, therapists may struggle to locate outcome measures with SDOH-related verbiage, as the majority of them cite adverse childhood experiences and other traumatic events by name. Therapists looking to assess other social determinants in children, such as diet and geographic location, may need to search for isolated, more specific measures in those areas.

Outcome measures that can help therapists assess SDOH in both children and adults include:

- Access Health Spartanburg: Social Determinants Screening Tool
- Accountable Health Communities Health-Related Social Needs (AHC-HRSN) Screening Tool
- Adverse Childhood Experience (ACE) Questionnaire for Adults
- American Academy of Family Physicians (AAFP) Social Needs Screening Tool

    - This can be used in conjunction with AAFP's Social Needs Action Plan once therapists begin treatment planning.
- Arlington Screening Tool
- Assessing Circumstances & Offering Resources for Needs (ACORN)
    - This tool is specifically designed for veterans.
- Boston Medical Center - Thrive Screening Tool
- IHELP Pediatric Social History Tool
- Health Leads Social Needs Screening Toolkit
- Medical-Legal Partnership Screening Guide
    - This guide is intended to help healthcare providers and social service workers to customize their own screening tool for legal needs based on the populations they most often serve.
- North Carolina Medicaid Screening Tool
- Structural Vulnerability Assessment Tool
    - This resource helps define local and large-scale pathways that can aid in the identification of an individual's health problems that may benefit from multidisciplinary services.
- The PRAPARE Screening Tool
- The Pediatric Adverse Childhood Experience and Related Life-events Screener (PEARLS)
- The SEEK Parent Questionnaire-R (PQ-R)
- The Survey of Well-being of Young Children

    - This is one of the only SDOH assessments that caters to various pediatric age ranges, including newborns between the ages of 1 and 3 months.

- Total Health Assessment Questionnaire for Medicare Members
- Upstream Risk Screening Tool - Health Begins
- Your Current Life Situation Survey (Short Form)
- We Care Survey
- WellRx Toolkit
    - This questionnaire is designed to be used at every visit, and is considered accessible for individuals of all literacy levels.

Section 3 Personal Reflection

What other traditional rehabilitation assessments might an occupational therapist pair with SDOH assessments for a well-rounded evaluation?

Section 3 Key Words

Adverse childhood experiences (ACEs) -Traumatic events that someone experiences between the ages of 0 and 17; 10 ACEs have been identified in the literature: half are personal (verbal abuse, sexual abuse, physical neglect, emotional neglect, and physical abuse) and half relate to family (having a family member in jail, having a close family member be diagnosed with a mental health condition, having a parent who misuses alcohol, having parents who are divorced, and having a mother who experiences domestic violence); research shows that

ACEs are associated with substance use disorders, mental health concerns, and physical health problems in adulthood

Section 4: OT Interventions for SDOH

References: 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70

SDOH Interventions Within OTs Scope of Practice

Occupational therapy interventions for SDOH fall into four main categories: occupational therapy action, advocacy, program development, and screening efforts. If you recall from the previous section, occupational therapy action is defined as any OT work (within or outside of their scope of practice) that involves critical reasoning and other therapy-related skills. An example of occupational therapy action that is distinctly separate from the other SDOH categories involves a provider asking a patient about their culture and adjusting their care accordingly, or doing additional research to learn more about common practices within that culture. A therapist cannot effectively do their job unless they are aware of all the factors that impact their patients, so this is an aspect of OT work that is action-focused and hones in on SDOH. A dated text from Wilcock & Hocking discusses the concept of practical action, and offers various bits of guidance to therapists engaging in such efforts. While this may be a fairly easy assumption to make, they state therapists (and patients) will reap the most benefits from practical action for SDOH by starting close to home. A good place to start in fully-developed, affluent countries is with any community that contains individuals who feel marginalized and restricted in their actions. Examples of these populations include refugees, children and young adults who are enmeshed in street gangs, and migrants. An OT's focus may shift when working in underdeveloped countries, since such nations often lack basic precursors for health. Practical action in less

developed countries may hone in on the provision of clean drinking water and nutritious food, forming a foundational system for healthcare, and offering individuals a sense of belonging within societies focused on the greater good for all. Wilcock & Hocking also state that therapists should start the OT action process by selecting a specific health disparity they want to focus on. The next step from there is to name various OT interventions at each layer: direct therapy services, OT practice as a whole, and OT action. By following the steps in this order, therapists can set forth a solid structure before implementing any SDOH interventions. This plan also enables therapists to better grasp the role that OTs have in addressing SDOH and social justice alike.

Advocacy in the realm of SDOH takes two main forms. OTs are often most familiar with advocating on the micro (or local) level, which is on behalf of individual patients who OTs offer direct services to or groups of patients they treat in traditional patient care settings. Micro level advocacy for an OT may involve calling a patient's insurance company to inquire why recommended durable medical equipment was denied and learning how they can help with the DME approval process. OTs may also engage in macro level advocacy, also known as systemic advocacy. Within the scope of OT's work, systemic advocacy involves facilitating long-term social change by standing up for the rights of others with impaired ability to advocate for themselves. By its nature, systemic advocacy entails work with policies and legislation at the state and federal levels as well as standard operating procedures for large, impactful healthcare organizations.

Program development is another intervention that OTs can utilize to address SDOH on the macro level. Since programs address the needs of large groups and populations, this form of OT work stands to impact a range of SDOH for the better. Programs developed with SDOH in mind should address systemic injustices that impact occupational engagement in order to be most effective. Program development can take place in one (e.g. a skilled nursing facility where an OT

program developer works) or several contexts (e.g. designed and implemented across multiple locations within a large healthcare system). However, the most important first step in the program development process is conducting a needs assessment, which allows programming to be considerate of all members' needs. Needs assessments are part of strategic planning efforts, and are defined as any methods someone uses to outline gaps that exist between existing outcomes and desired outcomes. Needs assessments involve measurement of resources and their allocation, gathering internal and external information, obtaining feedback from members, and using data to either create a program or make adjustments to an existing program.

One example of a SDOH intervention that combines both program development and screenings is the Developmental Enhancement, Monitoring, and Screening (DEMS) program. DEMS is a community-centered program that targets at-risk families living in New York City to prepare healthy children for school, and was designed based on the 2020 iteration of the Healthy People framework. This program was found to be beneficial for this geographic area due to the high numbers of developmental delays that went undetected until children became school-aged. The intention of this program was firstly to aid in early identification efforts, but DEMS also aimed to boost early referrals through developmental screens, offer facilitatory programming to prevent delays from worsening, and train parents in strategies for in-home monitoring and maintenance of developmental concerns.

Another area where OTs can assist with SDOH is through screening efforts. Screening efforts dedicated to SDOH can involve using any of the assessments mentioned in the previous section. OTs may also opt for screening to take place more organically while they form the occupational profile or during other parts of the therapy process. Therapists often view screening efforts as a precursor to an OT evaluation and individual sessions, but they can take place in the absence of

direct services. Screening efforts may take place in outpatient clinics or home health settings, but they may also extend to other more nontraditional contexts. Some examples include primary care, where OTs may partner with general physicians to consult with patients who have ongoing health concerns. Another niche that could benefit from SDOH screening is general health and wellness prevention, which may take place in settings such as recreation centers, homeless shelters, senior centers, adult day cares, and other places where individuals don't necessarily need medical management, rather would benefit from some guidance to avoid health concerns. Since these settings are community-based, this also allows therapists to get a different view of patients who possess SDOH that may fly under the radar in healthcare settings. OTs can also collaborate with patient navigators in hospitals and skilled nursing facilities to complete SDOH screenings.

SDOH Resources for OTs

There are many resources therapists can utilize when implementing any of the above SDOH interventions. One of the most significant of these are social care platforms, namely those that offer closed loop referral systems. While therapists who are individual contributors at their organizations often do not have the decision-making power to adopt these platforms, OTs in administrative positions can encourage the use of such platforms to improve outcomes. Social care platforms go far beyond EMRs by encompassing a wide range of disciplines to ensure continuity of care for patients. Social care platforms bring together social service providers, community organizations, government agencies, and healthcare professionals in one place so that communication can be more fluid across all members of the treatment team.

Many social care platforms offer a feature known as closed loop referrals. Once a provider initiates a referral for a certain organization, that agency receives the

referral, reviews it, and decides whether or not they have the capacity to help the patient. Each of these steps takes place within the social care platform so all providers are in the loop regarding where the patient stands. This eliminates the need for outreach and communication simply for the sake of status updates, so providers can focus on communication intended for collaboration. The idea behind closed loop referrals is that patients are not left alone to manage the social needs that may serve as barriers to care. As long as SDOH are brought to the attention of the team, social care platforms can aid in the remediation of any pertinent determinants. Both social care platforms and closed loop referrals are especially recommended when dealing with SDOH, as social outcomes are solely in the hands of providers and it is in their best interest to then spread awareness about patient concerns at hand. These processes also assist with the generation and organization of data that helps therapists make recommendations for additional social care resources. Several studies have demonstrated the effectiveness of social care platforms not only in identifying SDOH, but tracking referrals and long-term outcomes. In particular, Park et al. (2021) published a study that found a person-centered community care platform was associated with an increase in quality of life across all domains. Participants in this study reported notable improvements in shared decision-making abilities that related to their health and utilization of social services. A study by Martins et al. (2020) showed that, when older adults were asked to stop registering in healthcare and social services via paper and move to a web-based platform, there were significantly less errors.

There are various other technological resources therapists can either use in the process of addressing SDOH or recommend to patients who are in need of them:

- 211 hotline - https://www.211.org/
  This is a no-cost, national hotline that connects individuals in need with a range of health and social services. 211 operates via voice call and text, and

its offerings include assistance with reaching a crisis line or obtaining mental health treatment, substance use disorder treatment, help from a local food pantry, housing assistance, financial services, and healthcare services.

- Aligning for Health - https://aligningforhealth.org/
  This is a membership-based association that any professional can join to stay updated on SDOH-related issues and integrated programming to improve SDOH outcomes.

- Charity Tracker - https://www.charitytracker.com/
  This is a low-cost case management platform that professionals from nearly any discipline can utilize. Charity Tracker is used by churches, food banks, ministerial alliances, domestic violence shelters, disaster relief organizations, affordable housing agencies, and more. Charity Tracker also comes with a Community Impact Hub for professionals to network and collaborate even further.

- CrossTx - https://www.crosstx.com/
  CrossTx is a social care platform with a closed loop referral system. CrossTx is used by behavioral health clinicians, healthcare providers, social service workers, and more.

- Find Help - https://www.findhelp.org/
  Similar to the 211 hotline, Find Help is a free online service that connects people in need with free or low-cost resources for housing, food, healthcare services, financial assistance, and more.

- National Alliance to Impact the Social Determinants of Health (NASDOH) - https://nasdoh.org/
  NASDOH is another association providers can look to for assistance with

advocacy efforts, policy updates, toolkits, data tracking, digital navigation tools, and more.

- NinePatch - https://ninepatch.com/
  This technology company has created what they call “health-related social needs software” intended to benefit healthcare and social care organizations. Their software includes a closed loop referral system called the Referral Information Exchange (RIE).

- One Degree - https://www.1degree.org/
  One Degree is a database that collects information on a range of resources in each geographic location across the nation. One Degree allows individuals in need to search for resources related to food, healthcare services, education, housing, legal assistance, employment, financial assistance, family planning, and parenting, as well as abuse and crisis hotlines.

- Partnership to Align Social Care - https://www.partnership2asc.org/
  This association brings together leaders from philanthropic organizations, academic programs, community-based agencies, health plans, and national groups to collaboratively design strategies to improve social care delivery. Partnership to Align Social Care has worked closely with the Centers for Medicare and Medicaid Services (CMS) and offers webinars, community care hubs, workgroups, guides, and more for its members.

- Pieces Working Progress Note - https://piecestech.com/pieces-working-progress-note/
  Pieces Working Progress Note utilizes artificial intelligence, integrated voice memos, and other forms of information capture technology to ensure all medical and social service documentation comprehensively and accurately details a patient’s needs.

- Root Cause Coalition - https://www.rootcausecoalition.org/
  This non-profit association was jointly founded by the AARP Foundation and ProMedia, and has a shared goal of health equity for all Americans. The Root Cause Coalition's areas of focus include education, research, and advocacy. They have developed an Equity Legislation Monitor to help organizations identify urgent concerns that impact health disparities and any legislation that currently exists to address those issues. This legislation covers several key areas: gun violence prevention, digital equity, housing, climate change, infant and maternal health, rural health, payment models, and nutrition and food security.

- Signify Health - https://www.signifyhealth.com/
  Signify Health is a social care platform designed for health systems, clinicians, health plans, and individuals within their homes. This company offers in-home evaluations and diagnostic and preventive services. Signify Health has also partnered with CVS Health's Accountable Care program to assist with CMS reporting and metrics.

- Social Interventions Research & Evaluation Network (SIREN) - https://sirenetwork.ucsf.edu/
  SIREN aims to improve research efforts that contribute to the integration of both medical and social care in our society. They offer research round-ups to summarize updates for professionals as well as continuing education in the form of podcasts, webinars, newsletters, and a yearly national research meeting.

- SYNC for Social Needs - https://blog.hl7.org/sync-for-social-needs
  This blog was created by the scholarly journal Health Level Seven (HL7) International, and gives professionals more digestible, actionable information related to SDOH based on current research trends.

- The Gravity Project - https://thegravityproject.net/
  The Gravity Project is a national collaborative that collects data standards on the basis of consensus to inform and improve the way SDOH concerns are dealt with. One of the leading Gravity Project efforts involves policy integration, which is defined as agency-driven acts of institutional change that shape larger systems in a more holistic way.

- The RISE Summit on Social Determinants of Health - https://www.sdoh.risehealth.org/
  This yearly conference takes place with thought leaders from various disciplines, and offers subject matter experts ample opportunities to discuss solutions for SDOH-related challenges.

- Unite Us - https://uniteus.com/
  Unite Us is a social care platform that offers various technological solutions intended to bring healthcare organizations and government agencies together. Each of these solutions aims to boost providers' ability to make targeted recommendations, improve visibility of resources, and enhance the therapeutic relationship between providers and those in need.

- Well Sky - https://wellsky.com/social-care-coordination/
  This social care platform is designed with analytics and is intended for us by patients and their families, healthcare providers, and health plans.

Apart from the realm of technology, another way occupational therapists can get involved in SDOH efforts is through administrative positions in the greater rehabilitation field. This is less of an OT intervention and more of a role opportunity; however, this still opens doors for therapists to affect positive change in a different capacity. If therapists assume high-level positions, they can instill more change when using the OT interventions we discussed earlier (such as advocacy and program development). Positions such as director of rehabilitation -

at one or more local facilities as well as at the regional and national levels, clinic director, and similar openings all afford therapists the opportunity to speak with stakeholders, health plans, and more about OT interventions that can address SDOH. This can pave the way for more funding, treatment space, equipment, staffing, and other resources needed to effectively implement these interventions.

Administrative positions are not the only opportunities that allow therapists to address SDOH from a larger scale. OT providers can also cause more change by supervising others in the field, whether that may be newly-graduated OTRs, OTs or COTAs who are switching practice areas, new or experienced COTAs, or fieldwork students who are completing level I and level II rotations. This is a great way for working therapists to impart education about SDOH to individuals who can directly adjust the care they provide. And, who better to discuss the SDOH that impacts their local community than someone who is already working in that space. This creates many chances for purposeful collaboration, cotreatment, and even co-creation of valuable, effective programming.

OT Research on SDOH

While OT researchers have conducted studies on the impact of specific types of SDOH on occupational engagement and functional outcomes, there is still not a lot of research on this topic within our field. As we discussed earlier, other healthcare professions have done research on how effective (or ineffective) their academic programs were at educating students on the importance of SDOH for health outcomes and ways to address SDOH. While the results showed these programs could have done a better job of instructing students about this topic, at the end of the day, this still counts as research. There is much less of this type of research in the field of OT. There are still many gaps that future OT researchers

could fill in the realm of social justice, SDOH, and their ripple effects within the healthcare system and society as a whole.

Section 4 Personal Reflection

What type of programs might an OT and a COTA working in a skilled nursing facility in a low-income area with a large Native American population aim to develop?

Section 4 Key Words

Closed loop referral - The process of initiating, receiving, reviewing, and responding to a referral within a social care platform without any action needed from the patient; only some social care platforms have this feature

Patient navigator - Allied health professionals who help patients communicate effectively with their providers to properly comprehend information during the healthcare process and make informed decisions accordingly; patient navigators are most often found in acute and subacute settings, and it is common for registered nurses and social workers to assume this role

Social care platform - A subset of an EMR that encompasses communication and documentation from a wide range of disciplines including social service providers, community organizations, government agencies, and healthcare professionals; this allows for communication to be more fluid across all members of the treatment team

Section 5: Case Study #1

An occupational therapist working at a large acute rehabilitation hospital begins supervising a newly-hired OTR who has been practicing for 1 year. The new OTR's previous work experience was at an outpatient pediatric clinic, so this is an entirely new setting to her. The supervising OTR observed as the new therapist performed an evaluation on a 62-year-old female who recently sustained a severe stroke that led to widespread motor and sensory deficits as well as impaired expressive communication. The evaluating OTR has no prior information on this patient, but the supervising OTR has treated this patient before and is familiar with much of their recent medical and social history.

This patient lives alone on the third floor of a large house and was largely homebound due to mobility impairments. She relied on the help of her downstairs neighbor to bring her groceries and food, but this neighbor recently moved and she did not have that help within the week before her hospitalization. This patient also has 4 chronic conditions that she was struggling to manage prior to her hospitalization and, due to her transportation and mobility difficulties, she had not been to the doctor or received her medication in over 1 year.

When reviewing the case with the evaluating OTR later, the supervising OTR asked her what her process is for completing an occupational profile. The evaluating OTR mentioned that she typically asks the patient what their likes and dislikes are, but she was unable to do that with this patient due to the severity of her condition. The evaluating OTR admitted that she isn't really sure how to go about creating an occupational profile in these circumstances.

1. What SDOH-sensitive questions are important to include in this patient's occupational profile?

2. How might the evaluating OTR go about obtaining information for this patient's occupational profile?

3. What three SDOH interventions might the therapist recommend for this patient?

Section 6: Case Study #1 Review

This section will review the case studies that were previously presented. Responses will guide the clinician through a discussion of potential answers as well as encourage reflection.

1. What SDOH-sensitive questions are important to include in this patient's occupational profile?

   In creating an occupational profile that is sensitive to and inclusive of all SDOH, it is crucial that the therapist gathers information about this patient's living situation, commonly performed activities, social support, insurance coverage, durable medical equipment and assistive technology she currently has, ability to remain safe within her home, and her capacity for grocery shopping, cooking, attending doctor's appointments, and/or getting this help from someone else consistently.

2. How might the evaluating OTR go about obtaining information for this patient's occupational profile?

   Since this patient is not able to communicate well due to the effects of the stroke, the therapist should complete a chart review to gain the patient's medical and social history. This will offer some information about past medical and social history, as well as (hopefully) new developments in the patient's circumstances. If medical records are not offering enough

information, the therapist should discuss the case with the team in order to fill out the occupational profile, identify the areas of highest need, and intervene appropriately.

3. What SDOH interventions might the therapist recommend for this patient?

   Firstly, the patient's living situation places her at a high risk of decline. Since this patient was homebound prior to entering the hospital, the OT should perform a home evaluation to determine whether or not modifications can physically be made (e.g. a stair lift to help the patient get in and out of the home as well as accommodations within the home to allow for safe ADL participation). The therapist may also need to advocate when speaking with the patient's landlord about the possibility of performing these modifications. While ADA does not extend to private residences, the landlord may be able to make the housing more accessible to the patient if he understands the benefits.

   If these accommodations can be modified to be more accessible for her, the next intervention should be assisting the patient in obtaining consistent support within the home. The OT should collaborate with her case manager to ensure she has a home health aide to assist with ADLs and IADLs upon discharge.

   If her current housing is no longer a viable option, the therapist's priority in terms of housing should shift to transitioning to a long-term care facility that can meet her needs. The therapist should also ensure that the patient is established with her providers so she can continue to receive healthcare services after leaving the hospital.

Section 7: Case Study #2

An OTR has a full-time role working at an assisted living facility and also works at an adult daycare on a per-diem basis. She has had these working arrangements for the past 5 years and feels she has a good grasp on the needs of both of the populations she treats. She has worked strictly in direct services up until now, but the regional director of rehabilitation asked her to engage in some program development efforts at the assisted living facility. The OTR knows that staff at the adult daycare are also interested in program development, so the therapist wants to do the same for them.

1. Is program development within the scope of practice for the OT working at the ALF? What about at the adult daycare?
2. Is it recommended that the OTR use the program she develops for the ALF at the adult daycare? Why or why not?
3. What is the first step this OTR should take in the program development process at the ALF? What about at the adult daycare?

Section 8: Case Study #2 Review

This section will review the case studies that were previously presented. Responses will guide the clinician through a discussion of potential answers as well as encourage reflection.

1. Is program development within the scope of practice for the OT working at the ALF? What about at the adult daycare?

Yes, it is within the scope in both an ALF and an adult daycare. Program development is not only within the scope of practice for OTs working in any practice setting, but it is also one of the main interventions recommended for addressing SDOH.

2. Is it recommended that the OTR use the program she develops for the ALF at the adult daycare? Why or why not?

   It is not recommended to use the same programming for the ALF and for the adult daycare. Regardless of the geographic location of each facility, automatically using the same programming at both locations does not take the individual needs of members at each setting into consideration. If the therapist wants to create socially-sensitive programming for each location, she should conduct separate needs assessments as the first step in the program development process. If she determines that both populations have closely related needs, then she may be able to use the same program frameworks in both locations as long as she makes modifications to each program in order to remain person-centered for each population.

3. What is the first step this OTR should take in the program development process at the ALF? What about at the adult daycare?

   As we mentioned above, a needs assessment is the best starting point for program development in both locations. The results of the needs assessment can then be used to inform the next steps in the program development process.

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