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Applying the Model of Human Occupation During the Pandemic Stay-at-Home Order

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Comments

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Credentials Display

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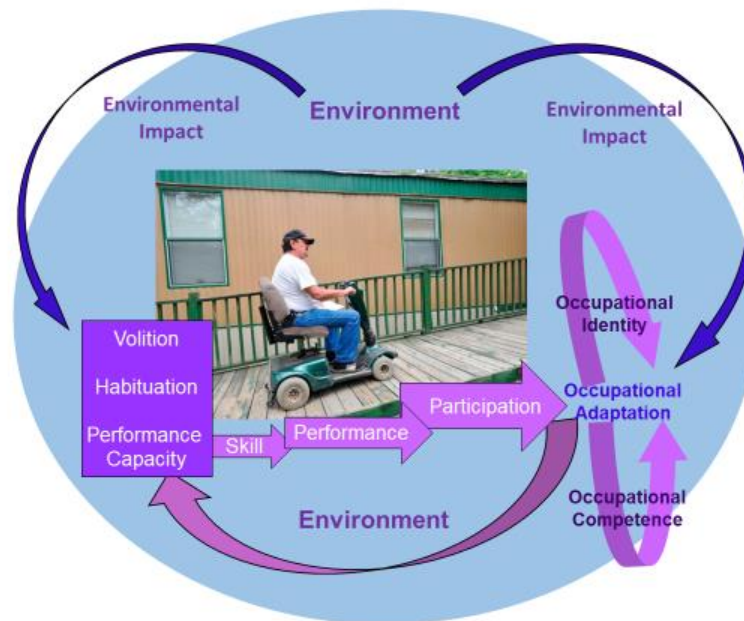
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Between December 31, 2019, and July 31, 2020, the outbreak of the 2019 coronavirus disease (COVID-19) in over 213 countries resulted in almost 18 million cases and caused over 680,000 deaths (World Health Organization, 2020). Because of the rapid increase of people infected with highly contagious COVID-19, countries decided to put strict public health measures in place to prevent further spread of COVID-19. Many countries, including the United States, the United Kingdom, Germany, and Italy, announced “stay-at-home” orders in March 2020 (Galea et al., 2020). The stay-at-home orders required all residents to stay in their homes and to leave home only for crucial reasons, such as to get groceries or medicine and for certain types of essential work. The orders also included the closing of non-essential businesses and restaurants, restrictions on public gatherings, and closure of public spaces (The State of Illinois, 2020). Even without being required to observe a stay-at-home order, some individuals choose to follow the guidelines and restrict leaving their home, unless it is was for an urgent reason or to buy necessities, to lessen their chance of becoming infected with COVID-19.

Home quarantine was another public health measure that many countries put in place to prevent further spread of COVID-19. Home quarantine isolates people who might be exposed to disease, such as COVID-19. Under home quarantine, people are expected to stay at home all of the time for up to 14 days, except to seek medical care, to separate themselves from others in their home and the community, and to follow directions from their health administration (Centers for Disease Control and Prevention, 2020). While the goals of both the stay-at-home and home quarantine orders were to prevent or lessen transmission of COVID-19, these two public health measures also impacted residents’ everyday activities in many aspects.

Occupational therapists have a unique focus on supporting people with health conditions or disabilities or those with difficulty adapting to changing life circumstances. Occupational therapists can provide remote consultation and coaching to aid individuals who are experiencing negative psychological and physical effects with stay-at-home requirements. The Model of Human Occupation (MOHO) is an occupation-centered model widely used by occupational therapists around the world. The MOHO provides guidance to assist occupational therapists in understanding the challenges and distress individuals experience during a pandemic, as well as strategies to support well-being. The MOHO’s perspectives on volition, habituation, performance capacity, and the environment can assist individuals with health conditions or disabilities, including those recovering from COVID-19, as well as members of the general population who are struggling with the limitations imposed by home quarantine or stay-at-home orders.

The MOHO is a complex model used primarily by occupational therapists. The model helps therapists understand a person’s view of themselves and their priorities, and, therefore, how best to support the client in accomplishing their goals. The model has four well-developed constructs: volition, habituation, performance capacity, and environmental impact. These constructs are related to additional areas, such as skills, performance, participation, occupational identity, occupational competence, and occupational adaptation, as shown in Figure 1. The arrows in the schematic diagram symbolize the dynamic aspects of the MOHO, where each element impacts all other elements. This paper focuses on the four foundational constructs of the MOHO while incorporating the additional areas that are relevant.

Figure 1*The Model of Human Occupation*

Note. Adapted by G. Fisher from R. Taylor (Ed.) (2017), *Kielhofner's Model of Human Occupation: Theory and application* (5th ed.). Wolters Kluwer Health/Lippincott Williams & Wilkins. Photo credit: Valentino Mauricio, beaumontenterprise.com

Volition: Motivation for and Choice of Occupation

A stay-at-home order is likely to influence a person's volition. As defined in the MOHO text, volition includes thoughts and feelings about personal capacity and effectiveness and how a person views the importance of what they do as well as what brings them enjoyment and satisfaction (Lee & Kielhofner, 2017a). Restrictions in place under COVID-19 disrupted participation in some interests that require social interaction at close range with others who live outside of the home, such as playing soccer or card games, and led to feelings of boredom or frustration about day-to-day life (Brooks et al., 2020; Sathyanath & Sathyanath, 2020). A sudden inability to act on one's interests is likely to lead to a decreased quality of life. For example, for many older adults, who are at higher risk for having a more severe case of COVID-19, engaging in regular physical activity with other older adults is a valued interest and positively associated with prevention of physical and psychological problems (Baker & Clark, 2020). As the result of a stay-at-home order or home quarantine, older adults may not be able to participate in their valued interests, and, therefore, are likely to experience reduced life satisfaction and reduced physical and mental well-being (Baker & Clark, 2020). In response to the person's challenges with enacting their interests, occupational therapists can support an individual to identify new interests or modify how they engage in current interests to align with a stay-at-home order. Learning how to share dinner with a valued friend while using an online video platform may allow them to continue to enjoy eating together. Incorporating favorite songs, books, photos, or art into one's day may bring moments of pleasure that provide relief from the stressful situation.

Another aspect of the volition component of the MOHO is personal causation or "being a cause" (Lee & Kielhofner, 2017a, p. 42). Not being able to participate in challenging and enjoyable work tasks or leisure activities will erode one's feelings of self-efficacy and sense of personal capacity. People with

health conditions or disabilities, as well as others who have difficulty coping with loss of valued activities, could benefit from collaborative virtual problem-solving sessions with the occupational therapists who can use their knowledge of task analysis to brainstorm substitutes or environmental modifications to allow continued progress toward targeted goals. Expanded participation in valued interests and activities will provide greater physical, cognitive, and emotional engagement; self-efficacy; and activity levels, thus improving one's well-being.

Habituation: Patterns of Daily Occupations and Roles

The MOHO habituation component includes habits, routines, and roles (Lee & Kielhofner, 2017b). A disruption of usual routine may occur as a result of a stay-at-home order. From a MOHO perspective, routine provides people with a degree of structure in everyday activities and creates a predictable pattern for people to follow daily (Lee & Kielhofner, 2017b). During the COVID-19 pandemic, most individuals' usual daily routines were dramatically altered. Many adults were asked to work from home, and students were asked to complete courses online. Retired or unemployed adults who had a leisure or volunteer routine may also have experienced disruption. A rapid review conducted by Brooks and her colleagues (2020) found that loss of routine and reduced social and physical contact with others is associated with boredom, frustration, and a sense of isolation from the outside world. The loss of routine affects not only psychological well-being but also physical health. A study has shown that the implementation of home quarantine increased the risk of sleep and numbness-related symptoms (Lee et al., 2018). Without a good quality of sleep, a person's motivation and physical ability to actively participate in daily activities is affected and might lead to diminished quality of life. Using the MOHO to analyze the influence of habits on daily occupations (Lee & Kielhofner, 2017b) can guide the preservation or establishment of realistic daily routines that support health and well-being, as well as interests and relationships.

In addition to the loss of one's structured and typical daily routines, life role loss is another impact of home quarantine. According to the MOHO, when a person experiences insufficient life roles they "lack identity, purpose, and structure in everyday life" (Lee & Kielhofner, 2017b, p. 68). Participants in a qualitative study conducted by Robertson and her colleagues (2004) reported that home quarantine changed their normal roles and routines, which created stress for their entire family. During a stay-at-home order or home quarantine, people are required to adjust to changes and new expectations of their life roles. This affects occupational identity, defined as "a composite sense of who one is and wishes to become" (de las Heras de Pablo et al., 2017, p. 117). Some individuals face an abrupt termination of their worker role during a pandemic. Parents who are able to continue working remotely and who have children at home need to learn how to balance worker roles and caregiver roles to meet the new expectations. Students need to learn how to shift their student role from in-person classes to an online class to align with the limitations. Adults who often help parents and other relatives who live outside of their home are not able to carry out their typical role as a family member, losing the face-to-face in-person contact and hugs that are an essential part of that role. The increased expectations of performance in life roles during a stay-at-home order create additional stress that may compromise the ability to complete their job and challenge self-efficacy in life roles, causing deteriorating occupational performance (Brooks et al., 2018; Lee & Kielhofner, 2017b).

With the changes in life roles, it is common for people to lose their sense of identity and purpose, which leads to decreased participation in and enthusiasm for everyday activities. Occupational therapists have the expertise to address changes in life roles by collaboratively problem-solving strategies to

clarify role expectations, adapt activity demands, manage time, share responsibilities with others, identify alternative ways to carry out roles, and facilitate development of new or modified roles to minimize the negative impacts of a stay-at-home order. This intervention could also be implemented virtually with a group by having participants share some of the strategies they have tried since the previous group meeting and brainstorming possible solutions to challenges in carrying out habits, routines, and roles.

Performance Capacity: Physical and Mental Components and Subjective Experiences

In addition to the challenges that a person may experience with volition and habituation, a person's performance capacity may be significantly altered by a stay-at-home or home quarantine order. Performance capacity is "the ability to do things provided by the status of underlying objective physical and mental components and corresponding subjective experience" (Tham et al., 2017, p. 75). During the COVID-19 pandemic, a person's subjective perception of their physical and mental capacity may have been altered because of changes in daily routine, shifts in their life roles, and loss of in-person social interactions. Recent literature has shown that people who experienced home quarantine because of an infectious disease outbreak often reported boredom, loneliness, depression, stress, low mood, insomnia, emotional disturbance, and frustration (Brooks et al., 2020; Xiang et al., 2020; Zhang et al., 2020). They may have experienced increased fatigue or pain related to their mental state or health status. For example, during a stay-at-home order, many recreational activities were paused. This put additional stress on those with mental health challenges. Instead of actively seeking an alternative activity, a person with a mood disorder may experience a more severe depression and perceive that they are more limited in having the stamina to get out of bed to participate in basic activities of daily living. Other research has also shown that a longer time in home quarantine is associated with a higher risk of experiencing anger and avoidance behaviors (Brooks et al., 2018). For example, a person who regularly works out at a fitness facility may be angry and frustrated that they cannot follow their usual routine and may perceive their body getting weaker because of a lack of resistive exercises. This may result in the person perceiving that they are physically unable to participate in a challenging home exercise program. In some cases, even though a person's physical ability may not be heavily compromised by home quarantine, a person's subjective view of their performance capacity may be profoundly affected, which impacts their desire to actively seek out and engage in their previous daily occupations.

To prevent the consequences of their clients experiencing an altered subjective view of their body and capacity, occupational therapists can provide alternative activity suggestions and psychosocial approaches to enhance a person's performance capacity and participation in daily occupations during a stay-at-home period. Occupational therapists could also provide a small group exercise and fitness program on Zoom or a similar platform that allows multiple individuals to participate simultaneously while physically distant. Using virtual physical activity groups to mobilize individuals and break the cycle of perceived loss of physical capacity may be most effective with people who have been using the same fitness center or who are participants in the same school or community-based therapeutic day program. The MOHO-informed group activities would also incorporate choices, interests, roles, and habits.

Environment: Impact of the Physical, Social, and Occupational Environment

A stay-at-home order not only impacts people internally but also can disrupt their environment, thus creating a need to modify the environment to support their interests and roles. The MOHO categorizes the environment into three components: physical, social, and occupational environment

(Fisher et al., 2017). The immediate physical environment, including natural and built spaces where people do activities, changes during home quarantine. People who must work or study from home are required to find a supportive space at home for these activities, which may require a new or repurposed space. This change in room availability may require other family members to adjust their schedules and use of space in the home. Another aspect of setting up a work or study space at home is to consider the necessary objects and technology. Computer and internet access become more important during a stay-at-home period for work and student roles, and objects, such as a supportive chair and ergonomic work station, are essential to prevent new or chronic pain or musculoskeletal conditions from interfering with work or school productivity (Mehrparvar et al., 2014; Shinn et al., 2002). Occupational therapists have the knowledge to recommend modifications to the physical space, office furniture, and computer input devices in one's workstation or home environment to facilitate role fulfillment and improved physical and mental well-being, whether for those with a chronic condition or the general population.

The physical environment also includes objects, and insufficient basic supplies, such as food and water, may add stress to the family during a stay-at-home or home quarantine order (Brooks et al., 2020). Other essential supplies during the COVID-19 pandemic may include, but are not limited to, masks, soap, cleaning supplies, toiletries, hand sanitizer, or thermometers. For example, an individual may need to seek food at a food pantry or an essential item at a store while wearing a mask, which involves leaving the home and adjusting to the mask, adding additional stress. Occupational therapists can provide problem-solving strategies or practice new life tasks with unfamiliar objects by role playing to address the additional stress caused by the modified physical environment and to support positive participation in everyday contexts.

The social component of the environment may also be affected by the COVID-19 restrictions. For example, a lack of social interaction with other people creates an unsupportive social environment for people during home quarantine, increasing the risk of posttraumatic stress disorder, anxiety, depression, and substance use disorders (Brooks et al., 2018; Galea et al., 2020; Yawger, 2018). This may lead to long-term psychological impact, causing occupational dysfunction. Providing strategies for connecting with others by phone or computer would enhance social supports during this challenging time. Occupational therapists can also run a virtual support group weekly for people to connect with others who may experience similar concerns and uncertainty, creating a supportive social network during the stay-at-home period.

Lastly, the occupational environment, defined as a context of occupations and activities that reflect the person's interests, roles, capacity, and cultural preferences, as well as funding and policies that influence occupations (Fisher et al., 2017), affects the quality of one's participation in everyday activities during a stay-at-home period. Limited occupation choices during a stay-at-home or home quarantine period creates psychological burden. Inadequate information from public health organizations has been reported as a stressor because of a lack of sufficient clear guidelines and confusion about the purpose of home quarantine (Brooks et al., 2020). When combined, limited occupation choices as well as inadequate financial resources or information create a challenging occupational environment that interferes with adjusting to the "new normal" daily structure. Occupational therapists can encourage or train clients to research different community resources and connect their clients with the right agencies to support more choices in their occupational environment. Therefore, a change to a person's occupational environment during the stay-at-home or home quarantine

period is often needed to continue to support one's participation in everyday activities by providing activities that provide enjoyment, challenge, and fulfillment.

Conclusion

Stay-at-home and home quarantine orders may create many uncertainties and changes in a person's self-efficacy, engagement in interests, daily routine, life roles, lived body experiences, and environment. These changes can also affect other components that are part of the MOHO, such as skills, performance, participation in life, occupational competence, occupational identity, and/or occupational adaptation. In response to these uncertainties, the implementation of occupational therapy can be a valuable resource in addressing challenges experienced by people impacted by a stay-at-home or home quarantine order, particularly people with chronic health conditions or disabilities. Occupational therapists have a strong foundation in occupation-centered models, including the MOHO, to evaluate and address the new shifts in daily occupations. They also have the knowledge to address these uncertainties and changes by providing strategies to establish supportive routines, home modifications, activity adaptations, disability prevention, health promotion, and advocacy (American Occupational Therapy Association, 2014). Occupational therapists holistically evaluate the dynamic relationship between personal factors, environmental factors, and occupational factors to support people under stay-at-home or home quarantine orders to establish a satisfying new normal structure to maximize their occupational performance in daily life and reduce the risk of long-term adverse psychological and occupational impacts post home quarantine. For this reason, occupational therapy services can benefit those with physical, cognitive, or behavioral health challenges that are exacerbated by a pandemic, including those who have been diagnosed with COVID-19 and who need to rebuild their capacity. The general population may also benefit from the unique perspective of an occupational therapists applying the MOHO to support participation in valued activities while sheltering in place at home. Given the occurrence of ongoing virus surges and outbreaks potentially resulting in a continuation of stay-at-home restrictions, occupational therapists can make unique contributions to develop individual or group interventions to enhance occupational performance as well as to promote occupational therapists' role in supporting well-being around the world, now and into the future.

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