第一大題：請閱讀下列摘要後，回答以下問題：
　1. 請問本篇研究的主要目的為何？（5%）
　2. 請簡要描述本篇研究的結論。（5%）

Background: Orthoses for individuals with stroke is considered an integral part of the neurorehabilitation process. However, there are no universal guidelines to determine the initiation period, duration, or type of orthosis for stroke patients.

Objectives: For this study, we systematically reviewed the evidence surrounding the use of orthoses for stroke-related upper extremity deficits.

Methods: Medical librarians searched MEDLINE, EMBASE, CINAHL, Cochrane Database of Systematic Reviews, Cochrane Controlled Trials Register, Health Technology Assessment Database, Physiotherapy Evidence Database, and OT Seeker using subject headings and keywords related to upper extremities, orthoses, and stroke. The resulting articles were evaluated for inclusion by the systematic review team. Articles that met the inclusion criteria were appraised for content and quality using the "Evaluation Guidelines for Rating the Quality of an Intervention Study" (EQIS).

Results: 14 studies were included, with the mean score of 31.29 (out of 48) for the EQIS using an ordinal scale with a range of 23-43.6 studies produced significant outcomes with effect sizes ranging from d = .52 (wrist flexion PROM) to d = 9.02 (patient satisfaction with orthosis).

Conclusion: Future studies should aim to utilize homogenous outcome measures while exploring variability in dosage and level of upper extremity impairment upon initiation. Additionally, universal guidelines for initiation period, duration, and type of orthosis for patients post-stroke need to be established.

(文章出處：Pritchard, K., et al. (2019). Systematic review of orthoses for stroke-induced upper extremity deficits. *Topics in Stroke Rehabilitation.* 26(5): 389-398.)

第二大題：試扼要翻譯以下論文摘要中加粗並畫有底線的部分。（10%）

Abstract: Despite advancements in occupational therapy research, the widespread research-to-practice gap continues to delay how quickly evidence-based practices are implemented in real-world clinical settings. Implementing research in practice is a complex process that mandates attention from all occupational therapy stakeholders; however, researchers are uniquely positioned to help minimize the 17-yr lag between scientific discovery and the implementation of research findings into practice. Our article serves as a response to Marr's (2017) *Centennial Topics* article, which proposed that purposeful efforts are needed to advocate for implementation research in occupational therapy. We provide an implementation science research agenda informed by concepts from the implementation science literature and suggest how researchers can structure methodologies to examine implementation-related outcomes and strategies. We provide explanations of gold-standard implementation outcomes and offer several recommendations for how researchers can report and disseminate implementation research findings to occupational therapy stakeholders.

(文章出處：Lisa A. Juckett; Monica L. Robinson; Lauren R. Wengerd (2019). Narrowing the Gap: An Implementation Science Research Agenda for the Occupational Therapy Profession. *American Journal of Occupational Therapy*, 07 2019, Vol. 73, 7305347010. https://doi.org/10.5014/ajot.2019.033902)

見背面

第三大題：請閱讀以下摘要，並回答下列問題。（20%）
1. 請說明此研究之目的為何
2. 請說明此研究的研究方法
3. 請說明此研究的結果
4. 請說明此研究的臨床應用

To estimate the prevalence of mental illness in parents of children with cerebral palsy (CP). This is a systematic review that follows the Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols in the search for observational studies determining the prevalence of depression, anxiety, and substance abuse in parents of individuals with CP. The information sources used for this study were: PubMed, SciELO, Cochrane Library, Clinical Trials, and Biblioteca Virtual de Saúde. Fourteen articles were selected and included, investigating 1264 mothers and 105 fathers of children with CP. Data extracted for analysis were divided into three categories: study data, data about participants with CP, and data about parents. All studies included volunteer parents, of whom 95 per cent were female. CP is related to a higher prevalence of symptoms of depression and anxiety in parents. Factors such as a child's degree of functionality and socioeconomic level may influence the frequency of mental disorders in parents. However, these studies have heterogeneous samples and applied different criteria to characterize their populations.

（文章出處：Barreto TM, Bento MN, Barreto TM, et al. (2020) Prevalence of depression, anxiety, and substance-related disorders in parents of children with cerebral palsy: a systematic review. *Developmental Medicine & Child Neurology*, 62: 163– 8.)

第四大題：請閱讀以下摘要，並回答下列問題。（15%）
1. 請說明此研究如何判定 MCI 個案
2. 請說明此研究的結果為何
3. 請簡單說明此研究對於臨床應用的重要性

Objectives: To examine associations between mild cognitive impairment (MCI) and falls among primary care patients, and to investigate whether
social engagement (SE) modifies these associations. **Design:** Cross sectional analysis using baseline data from an observational cohort study. **Setting:** Primary care. **Participants:** Community-dwelling older adults (N=430) at risk of mobility decline with a mean age of 76.6 years (range 65-96y). **Main Outcome Measures:** The number of falls in the past year was reported at the baseline interview. MCI was identified using a cutoff of 1.5 SD below the age-adjusted mean on at least 2 of the standardized cognitive performance tests. SE (eg, keeping in touch with friends and family, volunteering, participating social activities.) was assessed with the Late Life Function and Disability Instrument, and required a score above the median value 49.5 out of 100. **Results:** MCI was present among 42% of participants and 42% reported at least 1 fall in the preceding year. Using generalized estimating equations, MCI was associated with a 77% greater rate of falls (P<.05). There was a statistically significant interaction between SE and MCI on the rate of falls (P<.01), such that at a high level of SE, MCI was not statistically associated with falls (P=.83). In participants with lower levels of SE, MCI is associated with 1.3 times greater rate of falls (P<.01). **Conclusions:** While MCI is associated with a greater risk for falls, higher levels of SE may play a protective role.

（文章出處：Lien T. Quach, et. Al. (2019). The Association Between Social Engagement, Mild Cognitive Impairment, and Falls Among Older Primary Care Patients. *Archives of Physical Medicine and Rehabilitation*, 27: p1499–1505)

接次頁

第五大題：請閱讀文獻 Method 試回答下列問題。(15%)
1.請依據 Research Design 繪製研究流程圖(flow chart)
2.請列出研究對象納入以及排除標準

Method

Research Design

This intervention effectiveness study used randomization and control. Twenty-five women who self-reported a diagnosis of ADHD were recruited to participate and were randomly assigned to either the intervention or control group. The intervention group received the 7-wk intervention; the control group did not receive intervention. Both groups completed three outcome measures pre- and postintervention: the World Health Organization Adult ADHD Self-Report Scale (ASRS; Kessler et al., 2005), the Perceived Stress Scale (PSS; Cohen et al., 1983), and the Canadian Occupational Performance Measure (COPM; Law et al., 1994, 2005). The study was approved by the Columbia University Medical Center institutional review board. All participants provided written consent.

Participants

Twenty-five women were recruited for study participation through flyers posted in the community (e.g., college campuses, grocery stores) and in the meeting places of local support groups for women with ADHD. Inclusion criteria required participants to be age 20–55 yr, be English speaking, and have a self-reported diagnosis of ADHD. Participants were excluded if they had a severe comorbid condition, such as an eating disorder, major depression, bipolar disorder, schizophrenia spectrum disorder, or substance use disorder. Because studies have suggested that women with ADHD are commonly under- or misdiagnosed (Fuller-Thomson et al., 2016; Ginsberg et al., 2014), we did not exclude women who underwent ADHD screening procedures with inconclusive results. The first 25 women enrolled in the study were randomized to either the intervention or control group using a random number generator.

(文章出處：Sharon A. Gutman, Sheetala Balasubramanian, Maya Herzog, Elizabeth Kim, Hannah Swirnow, Yudis Retig, Samantha Wolff. (2020). Effectiveness of a Tailored Intervention for Women With Attention Deficit Hyperactivity Disorder (ADHD) and ADHD Symptoms: A Randomized Controlled Study. *The American Journal of Occupational Therapy*, January/February 2020, Vol. 74, No. 1 7401205010p1. http://ajot.aota.org on 01/06/2020 Terms of use: http://AOTA.org/terms)

第六大題：請根據下列摘要回答問題。(15%)
1. 請問本篇文章所量測的變數有哪些?
2. 本篇的結論為何?
3. 請根據摘要猜測本文的英文題目可能是什麼?

Background: Single object bimanual manipulation, or physically-coupled bimanual tasks, are ubiquitous in daily lives. However, the predominant focus of previous studies has been on uncoupled bimanual actions, where the two hands act independently to manipulate two disconnected objects. In this paper, we explore interlimb coordination among children with unilateral spastic cerebral palsy (USCP), by investigating upper limb motor control during a single object bimanual lifting task. **Methods:** 15 children with USCP and 17 typically developing (TD) children performed a simple single-object bimanual lifting task. The object was an instrumented cube that can record the contact force on each of its faces alongside estimating its trajectory during a prescribed two-handed lifting motion. The subject's performance was measured in terms of the duration of individual phases, linearity and monotonicity of the grasp-to-load force synergy, interlimb force asymmetry, and movement smoothness. **Results:** Similar to their TD counterparts, USCP subjects were able to produce a linear grasp-to-load force synergy. However, they demonstrated difficulties in producing monotonic forces and generating smooth movements. No impairment of anticipatory control was observed within the USCP subjects. However, our analysis showed that the USCP subjects shifted the weight of the cube onto their more-abled side, potentially to minimise the load on the impaired side, which suggests a developed strategy of compensating for inter-limb asymmetries, such as muscle strength. **Conclusion:** Bimanual interaction with a single mutual object has the potential to facilitate anticipation and sequencing of force control in USCP children unlike previous studies which showed deficits during uncoupled bimanual actions. We suggest that this difference could be partly due to the provision of adequate cutaneous and kinaesthetic information gathered from the dynamic exchange of forces between the two hands, mediated through the physical coupling.

見背面

第七大題：請就加粗並畫有底線一段，用中文簡要說明。不超過 100 個字。（15%）

Technology Interventions for Individuals With Mental Health Conditions

Retrieved from https://www.aota.org/Publications-News/otp/Archive/2019/tech-and-mental-health on 12/30/2019

People who experience mental health conditions make up one of the largest disability populations in the world. The National Institute of Mental Health (2019) reported that one in five Americans (or 46.6 million) in 2017 had experienced some level of mental illness. One study reported that the largest group of students with disabilities on campuses today are students who experience mental health conditions (Oswalt et al., 2018). Yet applying adaptive and everyday technology solutions to these populations is complicated by a dearth of research, practice guidelines, and models to guide clinical reasoning (Kirsh et al., 2019). Often, occupational therapy practitioners who work with individuals who have serious mental health conditions are not accustomed to using technology solutions to address these clients' occupational needs. Likewise, practitioners who specialize in applying technology solutions often do not have extensive experience working with individuals with several mental health conditions. This article attempts to bridge these gaps by referencing research, guidelines, and models to support effective clinical reasoning and solutions.

Mental Illness and Cognition

Although psychotic and affective symptoms are typically associated with serious mental illness, research suggests that cognitive impairments also accompany, and perhaps underlie, these more commonly associated symptoms, thus further impairing occupational performance (D'Amico et al., 2018). Kahn and Keefe (2013) stated, "Schizophrenia is not primarily a psychotic disorder; it is a cognitive illness" (p. 1107).
In addition to the positive symptoms of schizophrenia, such as hallucinations and disorganized thoughts, and the negative symptoms, such as anhedonia and avolition, cognitive impairments (including problems with executive functioning, processing speed, memory, attention, and social cognition) may impair ADLs, IADLs, socialization, work, and other occupations (Kahn & Keefe, 2013). Considering these cognitive impairments often present in behavioral health conditions, potentially applying technology to compensate for them becomes more apparent as a potential intervention (Gillespie et al., 2012).

Technology is Everywhere

Given the global access to everyday technology—cell phones in particular—developing apps and supports that use smartphone platforms are at the forefront of innovative development in the area of mental health treatment (Duplaga & Tubek, 2018; Wang et al., 2018). According to Statista (2018), more than 98% of U.S. citizens from the ages of 18 to 64 years use a cell phone, and this number is only expected to rise. Reliable organizations and websites, including the American Occupational Therapy Association (AOTA), offer extensive lists of such apps and other technology as solutions to address a multitude of deficits and occupational needs (i.e., www.aota.org/Practice/Mental-Health/MH-Apps).

However, providing lists of apps as possible solutions can lead practitioners to "put the cart before the horse." Often, practitioners ask questions such as: "I have a client who has depression. What app should I use with them?" This solution-based reasoning approach, without first exploring the client's occupational profile, may lead to misappropriated solutions and technology abandonment, a common issue in which the client does not embrace and integrate technology into their routines, roles, and occupations.

Start With the Person First—The Occupational Profile

As with any intervention planning, occupational therapy practitioners' reasoning should first be directed toward developing an occupational profile—a client-focused process of articulating the client's occupational history and experiences, patterns of daily living, interests, values, and needs (AOTA, 2014). Before considering the client's functional limitations and underlying impairments, the occupational profile focuses practitioner and client attention on the client's desires to do or achieve, and the client's perceived barriers to their desired occupational performance. Especially with clients whose past experiences and present symptoms may negatively affect personal causation, practitioners and clients should explore and articulate the client's present needs as well as their desired outcomes.

Case Example

This case example guides us through the process occupational therapy practitioners can use to match a person who has a mental health problem with a technology intervention that can help increase their participation in meaningful occupations. When occupational therapy practitioners work with clients they use a systematic approach to find the correct intervention to restore occupational performance with that client.

First, occupational therapy practitioners choose a conceptual model to guide their decisions; options include the Person-Environment-Occupation Model (Strong & Rebireo-Ghruhl, 2019) and the Canadian Model of Occupational Performance and Engagement (Townsend & Polatajko, 2007). The *Occupational Therapy Practice Framework: Domain and Process* (3rd ed.; AOTA, 2014) gives us a road map to follow when we start our evaluation and a format to follow using the occupational profile (AOTA, 2017). N was a 49-year-old woman who came to our clinic with a diagnosis of anxiety. From our intake occupational profile, we learned that N assumed many roles, including bookkeeper; wife (married to her second husband, C); and full-time online student at a community college, where she was studying computer science. Within those roles, she was having a difficult time prioritizing, scheduling, and managing associated tasks. N described her living situation as "very complicated"; she stayed most of the time on a farm with C. She also owned a trailer on her brother's property nearby, where she stopped daily in addition to going to work, doing schoolwork, and volunteering once a week at our clinic. Because of her conflicting roles and lack of time, N missed playing the fiddle, which she identified as a coping strategy that helped her "calm down." She described her life as "very out of control," and it was her perceived lack of control that prompted her request for help with time management. Once practitioners identify the barriers to occupational performance, they can see what evidence is available to support using everyday technology with those who are experiencing occupational performance deficits as a result of a mental health condition (Gentry, 2020). In this case, N's barriers were lack of ability to manage time, anxiety about how to control her life, and lack of personal "me" time. After the occupational profile was completed with N (see Table 1 below), we first constructed a time management strategy using a weekly calendar. We populated the calendar with "must do" items first and then filled in other events based on N's determination of priority. As we discussed options to help with this time construction, N stated that she currently used the calendar in her phone; however, she often forgot to look at it. Recognizing that N essentially had an established routine of using existing technology contained in her smartphone, albeit with occasional forgetfulness, we determined it would be beneficial to maximize her existing habit and familiar technology rather than acquiring a new calendar app, which would require more extensive learning. According to Nemec and colleagues (2015), linking new behaviors to already established habits can increase the likelihood of adoption. Essentially, we built on N's existing successful skills, habits, and routines around using her standard smartphone technology for use with the calendar function. We simply showed her how to add reminders and alarms to the already existing calendar app she was using. Next, N identified that she was very stressed and wanted some strategies to relax that she could use during the day. She wanted to trial some relaxation apps that were available for her phone and we reviewed several with her. She picked the Calm App to trial free for a month and reported that it was helpful. Although there is an initial indication that relaxation apps can be effective for reducing stress in those with medical conditions, more evidence is needed to support their use (Mikolasek et al., 2018). Lastly, we showed N some strategies to help her with schoolwork. We showed her how to use the "Find" option in online reading assignments to easily locate specific content. She was familiar with using the computer and commands, so this strategy was successful for her as well and helped her feel more efficient when doing her homework for school.

Conclusion

By using the skills that N had with her phone and computer and building on them to establish routines, we were able to help her with time management and stress relief. Using her calendar, N was even able to structure in some time to play music again. Matching a client with features of technology options and building on technology skills they already have can provide the basis for successful technology interventions as part of occupational therapy treatment with those experiencing mental health challenges.