Reopening the Doors to Center-Based ABA Services:

Clinical and Safety Protocols during COVID-19

Julie Kornack

Center for Autism and Related Disorders

Ashley L. Williams (ORCID ID #0000-0001-9393-0589)

LEARN Behavioral

Katherine A. Johnson

LEARN Behavioral

Eileen M. Mendes

Massachusetts Coalition of ABA Providers (MassCAP)

Author Note

Correspondence concerning this article should be addressed to Julie Kornack,

J.Kornack@centerforautism.com; (phone) 818-345-2345, ext. 1070; Center for Autism and

Related Disorders, 21600 Oxnard Street, 18th floor, Woodland Hills, CA, 91367.

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Abstract

In the wake of the coronavirus (COVID-19) pandemic, US organizations that provide applied behavior analysis (ABA) programs to individuals with autism spectrum disorder (ASD) have implemented a variety of safety precautions to minimize the spread of the virus, often shifting center-based services to the home or telehealth. Considered essential workers, ABA providers are exempt from government directives to close, so they have both the freedom and heavy responsibility to make their own decisions about how best to keep their clients safe while continuing to provide medically necessary services. In the coming weeks and months, ABA providers will be faced with the decision about whether to reopen centers. This article does not address that decision, except to acknowledge the urgency to reopen, both to help clients and remain solvent. Political rhetoric and contradictory public information further complicate this daunting decision. Because ABA providers do not have legal guidance to shift the burden of such decisions to local and state regulators, the burden is theirs alone. The unprecedented nature of the COVID-19 pandemic means that no decision is clearly wrong or right, and every decision has consequences. Although ABA providers do not have their own state guidance, many states have issued guidelines for childcare providers whose operations have continued throughout the pandemic. This article analyzes that guidance, identifies common variables potentially relevant to ABA organizations,, highlights clinical considerations and procedural compliance, and provides ABA organizations with the tools to make the best decision for their clients, in their community, and on their timeline.

Keywords: COVID-19, health and safety, pandemic, essential services, center-based services, ABA

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Editor's Note

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Introduction

In the midst of an unprecedented pandemic and a growing understanding of COVID-19, ABA providers grapple with balancing the risk of exposure of their clients and employees to the virus against the risk of withdrawing services and disrupting continuity of care (Cox, Plavnick, & Brodhead, 2020). Although, at the time of this publication, states are at different stages of shelter-at-home orders and business closure, health care providers, including behavior analysts, are viewed as essential workers and, therefore, exempt from such orders. As political and scientific leaders recognize that physical distancing will continue for some time and that a so-called second wave of COVID-19 diagnoses is likely (Washington Post, April 21, 2020), ABA providers may reevaluate temporary center-based closures and decide whether, when, and how to reopen. As providers come to understand the long-term suitability of their clients for telehealth services and encounter limits in home-based services, including employee and client concerns,

the decision to reopen their centers will inevitably become part of the analysis of how best to facilitate access to ABA during a pandemic.

In advance of resuming center-based services, ABA providers are faced with a multitude of difficult and often conflicting considerations, ranging from clinical concerns to business solvency. Indefinitely delaying or limiting services may impose lifelong consequences on their clients and may exacerbate systemic staffing challenges. The potential to avoid or minimize these consequences has added weight in the hands of behavior analysts whose profession calls on them to shape behavior, including hygiene and physical distancing behaviors that contribute to the safety of all involved.

Throughout this pandemic, many child care providers have remained open to care for the children of essential workers. Elected officials have referenced the essential nature of child care providers routinely and without controversy, and the Centers for Disease Control (CDC) and individual states have issued guidance for child care providers. These guidance documents enumerate protocols to minimize spread of the virus in settings that mimic the center-based settings of ABA providers, and existing research is rich with examples of ABA's effectiveness in teaching adherence to such protocols (e.g., Taylor & Alvero, 2012). As such, common variables of the CDC and state guidance documents and relevant ABA protocols may offer useful insights into considerations for resuming center-based services. Similarly, clinicians are urged to make use of technologies in ABA that would help prepare clients and staff for reentry into centers and begin pre-teaching skills that are relevant to the center-based setting. Each of these elements should be incorporated into a clear health and safety plan that has carefully considered state and federal guidance, aspects of the physical space, and the needs of staff and clients in order to

successfully operate an ABA clinic during the continued presence of COVID-19. A health and

safety plan template for reopening is provided in Figure 1.

As researchers and medical professionals learn more about the COVID-19 virus,

available information continues to evolve. ABA organizations are encouraged to exercise an

abundance of caution and do their own due diligence in ensuring the health, safety, and well-

being of their clients, families, and employees. Guidance referenced herein is current as of the

writing of this article.

Analyzing Federal and State Child Care Guidance

The Centers for Disease Control (CDC) issued federal guidance specific to child care

facilities that have remained open during the pandemic (CDC, 2020). The CDC guidance

contemplates the essential nature of the child care providers in that other essential workers who

rely on child care must be able to access child care throughout the emergency. As a result, the

CDC guidance does not *mandate*; it *recommends* and *encourages* specific safety precautions and

qualifies most recommendations with "if possible" (CDC, 2020). Many states reference or echo

the CDC guidance in their own child care guidance. See Table 1 for a listing of states' guidance.

States have broad authority to act to protect public health and safety (US Const. amend.

X). State guidance may be stricter than the federal guidance as long as the state guidance does

not conflict with the federal guidance. Where state and federal guidance differ, the stricter

guidance governs. Consequently, some states may *require* elements of the CDC guidelines that

are only recommended in the federal guidance. Some states did not issue their own guidance and

directed child care workers to the CDC guidance (e.g., Alaska) (CDC, 2020). Other states

referenced the CDC guidance and added their own requirements or suggestions (e.g.,

Massachusetts). Similarly, local officials may have also provided community-level guidance that

may be stricter than the state or federal guidance as long as it does not conflict with state or federal guidance.

Similar to ABA providers, child care providers serve a broad range of children at different developmental stages, and the facilities vary widely in size, type, and the number of clients they serve. As such, much of the state guidance recognizes that the adoption of some safety measures may not be feasible for all providers. Even so, many child care providers have remained open throughout the pandemic to provide an essential service.

Commonalities of Emergency Child Care Guidance Pertinent to Center-Based ABA

An analysis of state child care guidance identified variables with potential relevance to the center-based operations of ABA organizations, including recommendations or requirements for daily health screenings of employees and clients; procedures for dropping off and picking up clients; hygiene protocols; use of face coverings; physical distancing; personal protective equipment (PPE) guidance; stable cohorts of clients and employees; safety protocols for meals and snacks; monitoring of absenteeism; specifications for facility cleaning; and signage.

Daily Health Screenings

Most states require or encourage daily health screenings of both the client and employees. Some states recommend the health screening be applied to all those who reside with the client, and some states recommend screening all those who reside with employees, as well. Health screenings are typically comprised of taking temperatures and asking a series of questions, such as those listed in Table 2.

Individuals who respond *yes* to any of the screening questions are not permitted to enter the center and cannot return until after they have been symptom free for 72 hours without the aid of fever-reducing medication (i.e., acetaminophen). A great deal of state guidance cautions

providers to be attentive to emerging symptoms throughout the day and to retake temperatures if children or staff appear flushed or exhibit other signs of illness.

Drop-off and Pick-up Procedures

The CDC recommends staggering drop-off and pick-up times in order to limit the amount of close contact between children, parents/caregivers, and staff members in high traffic situations and times (CDC, 2020). Additionally, some states recommend establishing procedures to greet children outside the center and bring them to their parent/caregiver at the end of the day; have children wash their hands immediately upon arrival; and modify sign-in/sign-out procedures to limit unnecessary exchanges and eliminate shared objects, such as pens, pencils, and touchscreens. Several states recommend incorporating the health screening before the child enters the center, which would decrease the risk of contaminating the facility and spreading the virus to others if the health screening yields an indication that the child may be ill.

Hygiene

Hygiene encompasses both the personal hygiene of the clients and employees, including handwashing and covering coughs and sneezes, and the hygienic treatment of toys, technology, and food. Frequent handwashing is among the most important components of preventing the spread of the virus (CDC Hand Hygiene Guidance, 2020).

Handwashing. Clients and staff should be taught proper handwashing techniques, and some states require signage illustrating such techniques to be posted by sinks and in bathrooms (Table 1). Hands should be washed upon arrival at the center and frequently throughout the day. The most current CDC guidance underscores that soap and water are more effective than hand sanitizer, which remains in short supply. Ideally, use of hand sanitizer should be followed by traditional handwashing as soon as possible.

Coughing and sneezing. Clients and staff should avoid touching their eyes, nose, and mouth and should use a tissue to cover their mouths and noses when coughing or sneezing. Tissues should be discarded immediately in nearby receptacles that do not hinder social distancing, and hands should be washed after the tissue is discarded.

Toys

Proper disinfection of toys must occur between clients and at the end of the day. Toys with porous surfaces, such as stuffed animals and dolls with clothing, should be removed from the center. Toys that encourage mouthing, such as play food and utensils, should not be accessible. Items that cannot be disinfected, such as playdough and slime, should not be in the center. Toys that cannot be readily disinfected should be removed. Technology, such as an iPad, should not be shared between the client and the clinician and should be disinfected thoroughly before and after its use.

Masks and Face Coverings

In situations where physical distancing of six feet cannot be maintained, the CDC recommends use of masks to reduce the risk of exposure. Given ongoing shortages of N95 respirator masks, they should be reserved for frontline medical personnel, such as doctors and nurses; however, surgical masks or even cloth coverings are recommended. Due to the limited availability of surgical masks and other personal protective equipment (PPE), organizations are encouraged to reach out to their local health departments or state emergency management agencies to access these supplies.

Use of face shields, while primarily used by medical personnel to protect against spray and splatter, may be effective as they allow the client to see the staff member's full face and facial expressions.

Physical Distancing

Toward the end of March, 2020, the World Health Organization made a point to reframe distancing recommendations between people as *physical distancing*, rather than *social distancing*, underscoring that physical and social connections are distinct and that the intent is to encourage physical distancing (World Health Organization, 2020). The CDC recommends that group sizes be limited to 10 people, inclusive of staff and clients, and that six feet of distance be maintained between individuals as much as possible. Additionally, the CDC recommends, wherever possible, stable groups in which the clients and employees remain the same and the number of people working with a client be limited.

Physical distancing measures can be integrated into a center by limiting smaller rooms to one employee and one client. In centers with large, open spaces, larger pieces of furniture or plexiglass barriers can facilitate physical distancing, or tape on the floor can encourage adherence to physical distancing recommendations.

Meals and Snacks

While meal and snack times are natural opportunities to foster social engagement with peers, organizations should consider having clients eat with their assigned staff in their individual therapy/treatment areas. Parents/caregivers should be discouraged from providing food that requires additional preparation and encouraged to send in disposable utensils. Food should be provided in a paper bag. Thorough handwashing should precede and follow all meal and snack times. If common surfaces are touched, they should be disinfected.

Contaminated Clothing

Clothes contaminated with body fluids or secretions should be placed in a plastic bag or washed in a washing machine (Occupational Safety and Health Administration, 29 C.F.R. §

1910.1030). Families/caregivers should be encouraged to provide changes of clothes for the child in a quantity sufficient to last a designated time period. Staff members are encouraged to wear layers in the event their clothing becomes soiled, so they can remove the outer/top layer. Alternatively, staff members should have a change of clothes available.

Facility Cleaning

Specific sanitizing and disinfecting procedures are described in detail in the CDC guidance (CDC, 2020). Common surfaces that are touched throughout the day, such as doorknobs, lightswitches, tables, and countertops, should be disinfected repeatedly during the day. Facilities should be sanitized and disinfected thoroughly at the end of each day. ABA organizations should ensure that necessary cleaning supplies are readily available but not accessible to children.

<div align="center">Client Readiness</div>

Assessing Readiness

While the majority of available resources focus on preparing facilities and processes for operation, organizations should also consider the readiness of their clients and clinicians to deliver services consistent with the organization's health and safety plan. The efficacy of the health and safety plan and its protocols are predicated on the ability of staff and clients to follow the necessary precautions. Given the client population served by ABA organizations, clinicians should take great care in understanding and teaching the skills that are necessary for clients to demonstrate safe behaviors as identified in the health and safety plan.

While there are many commonalities in state guidance, the recommended measures have specific clinical implications for individuals with ASD. Consistent with their diagnosis, individuals with ASD may present with rigidities around routines or aversions to sensory stimuli,

such as masks, that may be exacerbated when transitioning back to center-based services. Pre-teaching of specific skills via telehealth or in the home setting prior to reentry to the center may increase client and staff compliance with the organization's health and safety plan.

As part of each clinician's decision-making process, clinicians should weigh the considerations listed in Table 3 as they relate to their individual client's skillset and presentation. These considerations allow clinicians to determine whether the client currently demonstrates the necessary safety skills to be a good fit for center-based services or if pre-teaching or accommodations would be needed in a given area to ensure that the health and safety plan can be carried out. Colombo and colleagues (2020) address the importance of determining the clinical appropriateness of settings for each client during emergencies (Colombo, Wallace, & Taylor, 2020).

Considering the most relevant state guidance and the organization's health and safety plan, the treatment team should develop a list of required prerequisite skills in order for clients to share space safely. For example, an organization's health and safety plan may identify that clients who will be a part of a group working in the same space should all minimally tolerate wearing masks themselves and tolerate others wearing masks for the session duration. This criterion may be loosened in instances where the space can accommodate one client and staff pairing working in a given area. In those cases, the health and safety plan may identify that clients who do not yet possess the necessary prerequisite skills for group spaces should be prioritized for smaller spaces that are not shared with other clients.

Teaching Readiness

Practitioners should look to the behavior analytic research literature for established treatments to teach readiness skills. For example, new pick-up and drop-off routines may be

taught with graduated guidance and picture schedules (Bryan & Gast, 2000; Dooley et al., 2001) or story-based interventions (Ivey et al., 2004; Bledsoe et al., 2003). Hygiene skills may be taught via task analysis (Probst & Walker, 2017), using modeling (Keen et al, 2007), chaining (Murzynski & Bourret, 2007), or combinations of other behavioral interventions (Parrott et al., 2000). Desensitization to protective equipment could be achieved through exposure (Ellis et al., 2006; Koegel et al., 2004). Physical distancing may be shaped using behavioral interventions including using reinforcement to teach new instructions/task directions (Newman et al, 1995), video modeling (Ihrig & Wolchick, 1988), or other stimulus control techniques.

Staff Training and Support

In addition to completing a comprehensive health and safety plan and determining client readiness, organizations need robust staff training on adherence to the new safety procedures, as well as a plan for support mechanisms that will ensure compliance. The safety of clients and staff is paramount, and ABA organizations have the responsibility to use all of their expertise in behavior change to ensure that necessary safety procedures are closely followed. For guidance, there is research in the medical literature on increasing compliance with safety procedures and the use of Personal Protective Equipment (Hinkin et al., 2008; Gammon et al., 2007; McGonagle et al., 2016; Stephens & Ludwig, 2005; Seo et al., 2019). Moreover, multitudes of behavior analytic research studies address changing and maintaining behavior (e.g., Stephens & Ludwig, 2005; Cooper, 2006; Seo et al., 2019).

Given the fluidity of what is known about COVID-19, organizations must be poised to respond to changing information. As new details about COVID-19 emerge (i.e., risks, prevention methods, safety guidance), organizations must be prepared to change safety procedures and introduce new training and support systems without delay.

Safety Procedures

Safety policies and procedures should be clear and specific and should address all relevant topics (e.g., daily health screenings, drop-off and pick-up procedures, hygiene, PPE, physical distancing, meals, contaminated clothing, what to do if a child or employee becomes ill while on site, etc.). The organization needs to ensure adequate training on each policy and procedure, using training best practices. Consider using a behavioral skills training format that includes describing the behavior, demonstrating the behavior, and then having the trainee perform the behavior while the trainer gives feedback, repeating until mastery (Parsons, Rollyson, & Reid, 2012; Fetherston & Sturmey, 2014).

Management Commitment

Studies indicate that behavioral safety processes may be followed more consistently when management takes active measures demonstrating its commitment to these processes. Managers' ongoing behavior regarding safety procedures communicates their relative importance to staff. When workers perceive their manager to value safe working behaviors, safe behavior becomes more likely and employee injuries and accidents decrease (McGonagle et al., 2016). Management commitment can be demonstrated by doing things that assist supervisees achieve a goal, such as completing an observation, contacting staff to provide support or to discuss safety performance, holding a feedback meeting, conducting safety trainings, answering questions, or addressing a hazard (Cooper, 2006).

Data Collection

As with any important behavior change, it is critical that safety procedure compliance be measured so that the efficacy of training and support systems can be continuously evaluated. Organizations may consider adding this data collection to their typical procedural integrity

measures. An adequate monitoring system includes training observers to collect reliable data, transferring data to a graphic display, and ongoing use of the system to trigger retraining or remediation when warranted (Sulzer-Azaroff et. al, 2001).

Supportive Contingencies

In addition to adequate training, a critical element of encouraging safe behavior is creating contingencies in the working environment that support ongoing compliance with safety protocols. Numerous evidence-based behavioral strategies have been shown to be effective to teach and maintain staff compliance with safety procedures. Procedures that have been used to improve staff compliance with safety equipment and protocols include antecedent strategies (e.g., verbal instructions, awareness training, campaigns/reminder posters, provision of supplies, and goal setting) and consequences (e.g., reinforcement, public posting, individual/group feedback, and self-monitoring) (Stephens & Ludwig, 2005; ref in Gammon, Morgan-Samuel, & Gould, 2008; Cooper, 2006; Seo et al., 2019).

Reducing potential barriers to the use of PPE and other safety procedures should be considered proactively in designing safety policies and procedures. Non-compliance in the use of PPE and other safety procedures by medical staff has been the subject of a number of research studies; health care workers cite various reasons for non-compliance with PPE, including its interference with work, inconvenience, being too busy, an insufficient supply of materials, exercising personal judgment regarding patient risk, confusion about the policy, or simple forgetfulness (Gammon, et. Al. 2007; Stephens & Ludwig, 2005).

Organizations should anticipate and address potential reasons for non-compliance. For instance, masks could interfere with direct therapy by preventing the client from seeing the clinician's facial expression, resulting in low compliance with mask policies. In such a case, an

organization may consider using face shields or masks with a transparent window. If cleaning supplies are located in an area that is not convenient, compliance with sanitizing procedures may be lower; to increase compliance, establish safe places for cleaning supplies situated throughout the center.

Limitations

As scientists and medical professionals learn more about COVID-19, guidance may change. ABA providers should be sensitive to the fluid nature of this information and should be alert to updates at the state and federal levels.

The authors recognize that staffing challenges may present a barrier to reopening but viewed this topic as outside the scope of this article.

Looking Ahead

Recognizing that the impact of COVID will not be short lived, ABA providers and the families they serve are encouraged to think in terms of how best to ensure access to ABA in an unpredictable long-term pandemic. Although facts about COVID continue to emerge, the safety measures it requires will not change until a vaccine is broadly available. For that reason, ABA providers should thoroughly understand how best to minimize the spread of COVID among employees and clients and should endeavor to use all of the tools available to them to maintain or renew access to ABA safely.

To preserve access to ABA, states issued directives that required insurers and health plans to authorize telehealth for all ABA billing codes. For the first time, behavior technicians were permitted to deliver 1:1 ABA via telehealth. In order to preserve these gains, behavior analysts should publish on telehealth's effectiveness, recognizing that *progress* may be limited in emergencies to the prevention of worsening of delays and maladaptive behaviors.

Recognizing that child care centers have remained open without interruption, ABA providers and their clients should individualize decisions about treatment location and the use of telehealth and should resist policies, advocacy, or posturing that create barriers to accessing ABA over extended periods of time. Even in a pandemic, ABA providers and those they serve should be alert to violations of mental health parity laws and the equitable access to ABA that they are meant to protect.

References

Bledsoe, R., Myles, B. S., & Simpson, R. L. (2003). Use of a social story intervention to improve mealtime skills of an adolescent with asperger syndrome. Autism: The International Journal of Research and Practice, 7(3), 289-295. [Bledsoe_2003.1]

Bryan, L. C., & Gast, D. L. (2000). Teaching on-task and on-schedule behaviors to high-functioning children with autism via picture activity schedules. Journal of Autism and Developmental Disorders, 30(6), 553-567. [Bryan_2000.1]

Centers for Disease Control. Guidance for child care programs that remain open (2020). Retrieved from https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/guidance-for-childcare.html

Centers for Disease Control. Hand hygiene guidance (2020). Retrieved from https://www.cdc.gov/handhygiene/providers/index.html

Colombo, R. A., Wallace, M., Taylor, R. (2020, preprint). An essential service decision model for applied behavior analytic providers during crisis. *Behavior Analysis in Practice.* Retrieved from https://psyarxiv.com/te8ha

Cooper, M. D. (2006). Exploratory analyses of the effects of managerial support and feedback consequences on behavioral safety maintenance. *Journal of Organizational Behavior Management*, *26*(3), 1-31. doi:10.1300/J075v26n03_01

Cooper, D. (2006) The impact of management's commitment on employee behavior: a field study. Presented at the American Society of Safety Engineers Middle East Chapter7th Professional Development Conference & Exhibition; Kingdom of Bahrain, March 18-22, 2006.

Cox, D. J., Plavnick, J. B., & Brodhead, M. T. (2020). A Proposed Process for Risk Mitigation During the COVID-19 Pandemic. *Behavior analysis in practice*, 1–7. Advance online publication. doi:10.1007/s40617-020-00430-1

Dooley, P., Wilczenski, F. L., & Torem, C. (2001). Using an activity schedule to smooth school transitions. Journal of Positive Behavior Interventions, 3(1), 57-61.

Ellis, E. M., Ala'i-Rosales, S. S., Glenn, S. S., Rosales-Ruiz, J., & Greenspoon, J. (2006). The effects of graduated exposure, modeling, and contingent social attention on tolerance to skin care products with two children with autism. Research in Developmental Disabilities, 27(6), 585-598.

U.S. Constitution, amend. 10.

Hinkin, J., Gammon, J., & Cutter, J. (2008). Review of personal protection equipment used in practice. *British Journal of Community Nursing, 13*(1) 14-19. doi:10.12968/bjcn.2008.13.1.27978

Ihrig, K., & Wolchick, S. A. (1988). Peer versus adult models and autistic children's learning: Acquisition, generalization, and maintenance. Journal of Autism and Developmental Disorders, 18, 67-79. [Ihrig_1988.1]

Ivey, M. L., Heflin, L., & Alberto, P. (2004). The use of social stories to promote independent behaviors in novel events for children with PDD-NOS. Focus on Autism and Other Developmental Disabilities, 19(3), 164-176. [Ivey_2004.1]

Fetherston, A. M. & Sturmey, P. (2014). The effects of behavioral skills training on instructor and learner behavior across responses and skill sets. *Research in Developmental Disabilitie*s, *35*(2) 541-562. doi:10.1016/j.ridd.2013.11.006

Gammon, J., Morgan-Samuel, H. & Gould, D. (2007). A review of the evidence for suboptimal compliance of healthcare practitioners to standard/universal infection control precautions. *Journal of Clinical Nursing, 17*(2)*,* 157-167. doi:10.1111/j.1365-2702.2006.01852.x

Keen, D., Brannigan, K. L., & Cuskelly, M. (2007). Toilet training for children with autism: The effects of video modeling. Journal of Developmental and Physical Disabilities, 19, 291-303. [Keen_2007.2]

Koegel, R. L., Openden, D., & Koegel, L. K. (2004). A systematic desensitization paradigm to treat hypersensitivity to auditory stimuli in children with autism in family contexts. Research and Practice for Persons with Severe Disabilities, 29(2), 122-134.

McGonagle, A. K., Essenmacher, L., Hamblin, L., Luborsky, Ml, Upfal, M. & Arnetz, J. (2016). Management commitment to safety, teamwork, and hospital worker injuries. *Journal of Hospital Administration, 5*(6) 46-52. doi:10.5430/jha.v5n6p46

Murzynski, N. T., & Bourret, J. C. (2007). Combining video modeling and least-to-most prompting for establishing a response chain. Behavioral Interventions, 22, 147- 152. [Murzynski_2007.1]

Newman, B., Hemmes, N. S., Buffington, D. M., & Andreopoulos, S. (1995). The effects of schedules of reinforcement on instruction-following in human subjects with verbal and nonverbal stimuli. *Analysis of Verbal Behavior,* 12, 31-41.

Occupational Safety and Health Administration, 29 C.F.R. § 1910.1030 retrieved from https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030

Parsons, M. B., Rollyson, J. H., & Reid, D. H. (2012). Evidence-Based Staff Training: A Guide for Practitioners. *Behavior Analysis in Practice*, *5*(2), 2–11. doi:10.1007/BF03391819

Parrott K.A, Schuster J.W, Collins B.C, Gassaway L.J. Simultaneous prompting and instructive feedback when teaching chained tasks. Journal of Behavioral Education. 2000;10:3–19.

Probst, K. M. & Walker, V. L. (2017). Using the system of least prompts to teach personal hygiene skills to a high school student with comorbid visual impairment and autism spectrum disorder. *Journal of Visual Impairment and Blindness,* Nov-Dec.

Seo, H. J., Sohng, K. Y., Chang, S. O., Chaung, S. K., & Won, J. S. (2019). Interventions to improve hand hygiene compliance in emergency departments: a systematic review. *Journal of Hospital Infection, 102*(4). 394-406. doi:10.1016/j.jhin.2019.03.013

Stephens, S. D. & Ludwig, T. D. (2005). Improving anesthesia nurse compliance with universal precautions using group goals and public feedback. *Journal of Organizational Behavior Management, (25)*2, 37-71. doi:10.1300/J075v25n02_02

Sulzer-Azaroff, B., McCann, K. B., & Harris, T. C. (2001). The safe performance approach to preventing job-related illness and injury. In C. M. Johnson, W. K. Redmon, & T. C. Mawhinney (Eds.), Handbook of Organizational Performance: Behavior Analysis and Management (pp. 289-290).

Sun, L. H. (2020, April 21). CDC director warns second wave of coronavirus is likely to be even more devastating. *Washington Post.* Retrieved from https://www.washingtonpost.com/health/2020/04/21/coronavirus-secondwave-cdcdirector/

Taylor, M. A., & Alvero, A. M. (2012). The effects of safety discrimination training and frequent safety observations on safety-related behavior. *Journal of Organizational Behavior Management, 32*(3), 169-193. doi:10.1080/01608061.2012.698115

World Health Organization (2020, March 20). World health organization transcript of press conference. Retrieved from https://www.who.int/docs/default-source/coronaviruse/transcripts/who-audio-emergencies-coronavirus-press-conference-full-20mar2020.pdf?sfvrsn=1eafbff_0

Figure 1.

Sample Template of Health and Safety Plan for Reopening

Health and Safety Plans should incorporate state-specific guidance and should be updated as necessary, along with corresponding updates to staff training. For information about state guidance, please refer to state agency websites referenced in Table 1. Guidance from the Center for Disease Control (CDC) may be found at https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/guidance-for-childcare.html. Guidance from the Occupational Health and Safety Administration may be found at https://www.osha.gov/Publications/OSHA3990.pdf.

Disclaimer: This template is not intended to be legal advice and is not a substitute for an organization's responsibility to understand and comply with relevant laws, regulations, and guidance.

Daily Health Screenings
Plan for screening clients (temp check, questionnaire, criteria for denied entry and return to center):
Plan for screening employees (temp check, questionnaire, criteria for denied entry and return to center):

Plan for cancellations/reassignment when a client or employee does not pass the screening and is unable to enter the center:

Drop-off and Pick-up Procedures

Check all that apply:

- ❑ Staggered drop-off
- ❑ Staggered pick-up
- ❑ No entry for caregivers
- ❑ Handwashing upon arrival
- ❑ Sign-in/out procedures limit unnecessary contact with others
- ❑ Sign-in/out procedures eliminate need to touch shared objects (pens, touchscreens)

Hygiene

Hygiene requirements for staff (handwashing, hand sanitizer, covering coughs/sneezes):

Signage/ instructions posted by sinks:

Hygiene protocols for clients (handwashing, hand sanitizer, covering coughs/sneezes):

Plan for clients who do not wash hands independently:

Hygiene protocols for serving food (check all that apply):

❏ Clients eat with assigned staff in treatment area (rather than a common eating area)
❏ Request that clients bring food requiring no additional preparation
❏ Request that clients bring disposable utensils
❏ Request that clients bring food in a disposable container (paper bag)
❏ Clients to wash hands thoroughly before and after meal and snack times
❏ Staff to wash hands thoroughly before and after meal and snack times
❏ Common surfaces to be disinfected before and after meal and snack times

Hygiene protocols for contaminated clothing:

❏ Designated area to put contaminated clothing (plastic bag)
❏ Clients encouraged to keep sufficient quantity of additional clothes on site
❏ Staff members encouraged to keep additional clothes on site, in case clothing becomes soiled

Disinfection

Plan for toy disinfection (check all that apply):

- ❏ All toys disinfected at the end of the session / day (circle one)
- ❏ Toys with porous surfaces (stuffed animals) removed from center
- ❏ Toys that encourage mouthing (play food, dishes) removed from center
- ❏ Toys that cannot be disinfected (slime, play-dough) removed from center
- ❏ Technology not shared between client / clinician
- ❏ Technology (tablets) disinfected before and after use
- ❏ Other (specify)

Plan for common surface (doorknobs, light switches, tables, countertops) disinfection (include disinfection schedule, type of disinfectant, and staff responsible):

Plan for general facilities disinfection each night:

Plan for obtaining an adequate ongoing supply of appropriate cleaning materials:

Plan for safe storage of cleaning supplies:

Masks / Face Coverings
Staff face covering policy (include circumstances under which they are mandated and/or recommended, type of coverings acceptable, how adherence will be overseen):
Client face covering policy (include circumstances under which they are mandated and/or recommended, type of coverings acceptable, how adherence will be overseen):
Protocols for clients necessitating deviation from typical policies (those who are unable to wear a mask*, do not tolerate others wearing masks*, or need staff to wear transparent face coverings):   * See "Readiness Skills"
Plan for obtaining an adequate ongoing supply of PPE needed to comply with this Health and Safety Plan:

Physical Distancing
Plan for limiting number of people in the center (include total number of people allowed, standards for maintaining distance from others, number of people allowed in each room at one time):
Plan for stable groups to minimize the number of people in contact with one another (include how many staff each client may have, how many clients each staff member may have, and plan for absences/substitutions):
Plan for maintaining physical distancing in large open areas (include barriers to use, floor markings to separate spaces, etc.):

Table 1

State Child Care Guidance during COVID-19

State	Guidance Category													Link to Guidance
	References CDC	Health Screen	Drop Off and Pick up	Hygiene	Face Coverings	Physical Distancing	Stable Groups	Staggered Start /End Times	PPE Guidance	Meals & Snacks	Absenteeism	Facility Cleaning	Signage	
Alabama	Y	E		E		E						E		https://dhr.alabama.gov/wp-content/uploads/2020/03/Covid-Providers-1.pdf
Alaska	Y	E	E	E	E	E	E	E	E	E	E	E		http://dhss.alaska.gov/News/Documents/press/2020/SOA_03172020_HealthAlert008_ChildCare.pdf
Arizona		E		E		E	E	E				E	E	https://www.azdhs.gov/documents/preparedness/epidemiology-disease-control/infectious-disease-epidemiology/novel-coronavirus/schools/childcare-guidance-letter.pdf
Arkansas	Y	E	E	E	E	E	E	E	E	E	E	E		https://www.healthy.arkansas.gov/programs-services/topics/covid-19-guidance-for-educators https://humanservices.arkansas.gov/images/uploads/dccece/Child_Care_ADH_DHS_Guidance_Document_4-23-20.pdf
California		R	R	R		R	R			R		R	R	https://www.cdss.ca.gov/Portals/9/CCLD/PINs/2020/CCP/PIN_20-06-CCP.pdf
Colorado	Y	R		R E		R	R			R		R		https://covid19.colorado.gov/safer-at-home/safer-at-home-child-care-facilities
Connecticut	Y	R		R								R		https://www.ctoec.org/wp-content/uploads/2020/03/Memo-15-Reduced-Group-Size-and-Enhanced-Health-Procedures-for-Child-Care-Programs-During-COVID-19-3_-31_20.pdf
Delaware		R	R E	R		R				R		R		https://coronavirus.delaware.gov/wp-content/uploads/sites/177/2020/04/DSCYF-Emergency-care-requirements-revised-4.1.20.pdf
DC	Y	E	E	E	E	E	E	E	E	E	E	E		https://osse.dc.gov/sites/default/files/dc/sites/osse/page_content/attachments/COVID-19%20-%20Child%20Care%20Health%20Guidance.pdf

State	1	2	3	4	5	6	7	8	9	10	11	12	13	Source
Florida	Y	R	R			R						R		https://www.myflfamilies.com/covid19/child-care.shtml
Georgia		E	E	E								E		https://decal.ga.gov/documents/attachments/precautionsopenprograms.pdf
Hawaii	Y		E			E						E		https://humanservices.hawaii.gov/wp-content/uploads/2020/03/COVID-19-Guidance-Childcare-FINAL-2020-03-19.pdf
Idaho	Y	E	E	E	E	E				E		E	E	https://cdhd.idaho.gov/pdfs/cd/Coronavirus/Resource%20Docs/CDH-Childcare-Guidance-Final-04-07-20.pdf
Illinois	Y	E	E	E		E					E	E	E	https://www2.illinois.gov/sites/OECD/Documents/COVID-19%20Guidance%20for%20Child%20Care%20Centers%2c%20Child%20Care%20Homes%2c%20and%20Early%20Education%20Programs.pdf
Indiana	Y	R				R						E		https://www.in.gov/fssa/files/Child_Care_Updated_Guidance_032020.pdf
Iowa		R	R	R		R					R	R		https://dhs.iowa.gov/sites/default/files/DHS_ChildCareGuidance.pdf?032120201912
Kansas	Y	R	E	E	E	R	E	E	E			R	E	https://www.coronavirus.kdheks.gov/DocumentCenter/View/144/Guidance-for-Child-Care-Facilities-Licensed-by-KDHE---4-30-20?bidId=
Kentucky	Y	E	E	E	E	E	E	E	E	E	E	E		https://chfs.ky.gov/cv19/ApprovedProvidersguidance.pdf
Louisiana	Y	E		E		E								http://ldh.la.gov/assets/oph/Coronavirus/resources/memorandum_daycare_03_23_2020.pdf
Maine	Y	E	E	E								E		https://www.maine.gov/dhhs/ocfs/documents/covid-19/3-16-2020-GUIDANCE-COVID-19.pdf
Maryland	Y	E		E		E						E		https://earlychildhood.marylandpublicschools.org/enhanced-guidelines-child-care-facilities-prevent-spread-covid-19
Massachusetts	Y	R		R		R						R	R	https://eeclead.force.com/resource/1587682872000/DPH_Health
Michigan	Y			E					E			E		https://www.michigan.gov/documents/coronavirus/DHHS_Guidance_-_COVID-19_Cleaning_and_Disinfecting_of_Childcare_Environments_685195_7.pdf
Minnesota	Y	E		E	E				E			E		https://mn.gov/mmb/childcare/providers/
Mississippi	Y	E	E	E	E	E	E	E	E	E	E	E		https://msdh.ms.gov/msdhsite/_static/14,21866,420.html
Missouri	Y			E	E	E					E	E		https://health.mo.gov/safety/childcare/pdf/sccr-updates22620.pdf https://health.mo.gov/safety/childcare/pdf/covid-42120.pdf
Montana	Y		E	E	E	E						E		https://dphhs.mt.gov/Portals/85/Documents/Coronavirus/ChildcareDirective.pdf https://dphhs.mt.gov/Portals/85/Documents/Coronavirus/FAQChildCareUpdate.pdf
Nebraska	Y			E		E						E		http://dhhs.ne.gov/Documents/COVID-19%20Schools%20and%20Childcare.pdf

State													Reference
Nevada	Y			E									E	https://dwss.nv.gov/Care/COVID_19_Child_Care_Guidance_and_Resources/
New Hampshire	Y			E	E								E	http://nh.childcareaware.org/covid-19-resources-for-providers/
New Jersey		R	R	R			R		R		R		R	https://www.nj.gov/dcf/news/DCF-Health-Safety-Standards_for_Child-Care-Centers.3-25-20.pdf
New Mexico		E	E	E		E	E	E	E	E	E	E		http://www.newmexicokids.org/coronavirus/index.php
New York	Y	R			R									https://ocfs.ny.gov/programs/childcare/#COVID19 https://ocfs.ny.gov/main/childcare/letterstoproviders/2020/Dear-Provider-2020Feb-Corona-Virus.pdf
North Carolina		R	E	E		E	E	E		E		R	R	https://files.nc.gov/ncdhhs/documents/files/covid-19/NC-Interim-Guidance-for-Child-Care-Settings.pdf
North Dakota		R		R		R	R			R				hththttps://files.nc.gov/ncdhhs/documents/files/covid-19/NC-Interim-Guidance-for-Child-Care-Settings.pdfps://files.nc.gov/ncdhhs/documents/files/covid-19/NC-Interim-Guidance-for-Child-Care-Settings.pdftp://www.nd.gov/dhs/info/covid-19/docs/child-care-modified-operating-practices.pdf
Ohio			E	E		E	E					R		https://coronavirus.ohio.gov/wps/wcm/connect/gov/52db295c-5455-45a5-b1a6-cb7ab66b3a47/Checklist+for+Child+Care+Programs+04.22.20.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_M1HGGIK0N0JO00QO9DDDDM3000-52db295c-5455-45a5-b1a6-cb7ab66b3a47-n6zcPCT
Oklahoma	Y	E	E	E		E			E		E			https://coronavirus.health.ok.gov/articles/osdh-issues-new-covid-19-guidance-oklahoma-child-care-facilities
Oregon		E	E	E		E			E				E	https://oregonearlylearning.com/wp-content/uploads/2020/03/Guidance-for-Child-Care-and-Emergency-Child-Care-COVID-19_03_17_20_1025_topost.FINAL_.OHA_.ELD_.pdf
Pennsylvania		E		E	E	E	E						E	https://www.dhs.pa.gov/providers/Providers/Documents/Coronavirus%202020/CC_Caring_Child_During_COVID-19_final.pdf
Rhode Island														http://www.dhs.ri.gov/Programs/CCAPProviderResourceNewPageLAC.php
South Carolina	Y	E	E	E	E	E	E	E	E	E	E	E		https://www.scdhec.gov/sites/default/files/media/document/COVID19-childcare-school-guide-021320.pdf
South Dakota		R	R	R		E	E	E				E	R	https://news.sd.gov/newsitem.aspx?id=26514
Tennessee	Y	E	E	E	E	E	E	E	E	E	E	E		https://www.tn.gov/content/dam/tn/human-services/documents/Guidance-FAQs-3.17.20.pdf
Texas		E	R	E						E		E		https://hhs.texas.gov/about-hhs/communications-events/news/2020/03/covid-19-guidance-child-care-providers
Utah		R	R	R		R						R		https://jobs.utah.gov/covid19/ccfaqproviders.pdf

State												Source
Vermont	R	E	E	E	E	E	E			E		https://www.healthvermont.gov/sites/default/files/documents/pdf/HealthGuidanceforEmergencyProgramsProvidingChildcareforEssentialPersons.pdf
Virginia	E		E		E				E	E		https://www.dss.virginia.gov/cc/covid-19-docs/3.18.20%20VDSS%20Child%20Care%20Guidance.pdf
Washington	E	E	E	E	E		E	E	E	R		https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/DOH-OSPI-DYCF-SchoolsChildCareGuidance.pdf
West Virginia			R		R					R		https://dhhr.wv.gov/COVID-19/Documents/business/COVID19_guidance_child_care_center.pdf
Wisconsin	E	E	E		E		E		E	E		https://dcf.wisconsin.gov/files/childcare/covid/pdf/dcf-order-19-covid-19.pdf
Wyoming			E		E					E	E	https://health.wyo.gov/wp-content/uploads/2020/03/WDH-Guidance-for-Child-Care-Providers_COVID-19_3.20.20.pdf

Note. R = Required protocols; E = Encouraged protocols; Y = References CDC guideline. *Note.* Rhode Island closed all of its child care establishments, and no guidance was publicly available.   *Note.* Information linked in this table may change continuously; the reader should verify current state guidance at time of implementation.

Table 2

Sample Screening Questionnaire

Does client/employee have any of the following symptoms	Yes	No
A temperature of 100.4 or above?		
Actual temperature at arrival:		
Cough?		
Shortness of breath?		
Sore throat?		
Other signs of illness? Explain		
Has client/employee been in contact with someone in the last 14 days who has a confirmed or presumptive diagnosis of COVID-19?		

Table 3

Client Clinical Considerations during COVID-19 for Center-Based Services

Area	Consideration
Drop Off & Pick Up	● Does the client demonstrate safe waiting behaviors in the identified drop-off/pick-up locations? ● Will having an alternate drop-off/pick-up location (e.g., at the car or at the door) be disruptive to the client? ● Will other changes to the drop-off/pick-up routine be disrupted in a way that the client would not expect? ● What are the specific ways that drop-off/pick-up will appear different to the client, and how can those changes be practiced or discussed in advance?
Hygiene	● Has the client mastered handwashing as a skill, including thoroughness and duration of handwashing? ● What currently serves as the antecedent that exerts control over handwashing (e.g., only following bathroom use and preceding meals)? ● Would the client respond to verbal or auditory (i.e., timer) prompts to wash hands on a more regular basis? ● Are there additional antecedents that should be incorporated into programming to exert control over handwashing, such as following touching one's face or touching a light switch?

- Does the client demonstrate use of hand sanitizer using appropriate amounts, thoroughly coating hands, and without ingesting the hand sanitizer?

- Are there risks of the client touching or ingesting other cleaning products used more frequently, such as sanitizing wipes, that may be present more often now?

- Does the client cover own mouth and nose when coughing and sneezing? Using elbow?

- Does the client mouth objects?

- Does the client require physical assistance with eating when a mask will not be worn?

Masks

- Does the client tolerate other individuals wearing a mask?

- Would a desensitization program be needed for the client to tolerate the technician or behavior analyst wearing a mask?

- When frustrated or aggravated, does the client attempt to remove others' masks?

- Does the client tolerate wearing a mask for a brief period?

- Will the client tolerate wearing a mask for the intended session duration?

- Can the client put on his/her own mask without assistance, including multiple types of masks (e.g., surgical, cloth, elastic behind ears or behind head)?

- Would the client benefit from a stimulus assessment of mask types to reduce aversiveness of the mask?

- Does the client demonstrate hygienic mask removal?

Physical Distancing

- Does the client maintain physical distance from others without assistance?

- Does the client follow the directive "stop"?

- Would the client follow physical distancing prompts, such as floor markers outside of the bathroom, to help maintain physical distancing?

- Does the client require physical prompting and to what extent?

- Does the client follow verbal cues when navigating the environment, including directive not to approach other peers?