

Fatal Four

The **Fatal Four** calls attention to health conditions which have resulted in poor outcomes for individuals with intellectual and developmental disabilities. **Seizures, aspiration, constipation, and dehydration** are diagnoses which are common within the IDD population. By understanding the risks of the Fatal Four, staff can improve the quality of life for individuals and possibly prevent adverse outcomes such as death. The best practice for saving lives is through monitoring, staff training, and being proactive.

Aspiration is common among the IDD population due to a significant prevalence of conditions such as dysphagia, cerebral palsy, and GERD. Aspiration pneumonia occurs when pharyngeal contents, is introduced to the lungs (Jasien et al., 2016). Interventions such as protocols for mealtimes, adhering to modifications for textured diets (as recommended by a speech pathologist and prescribed by a physician), along with staff training to recognize symptoms of aspiration are the keys for management.

Dehydration can be caused by fluid loss through diarrhea, vomiting, or taking medications (Mayo Clinic, 2019). Normal functions of the body such as breathing and sweating contributes to fluid loss (Fronius, Clauss & Althaus, 2012). Complications from untreated dehydration can be fatal. Dehydration is associated with an increase in seizure activity, kidney failure, hypovolemic shock, constipation, and even death. Here are a few suggestions to increase fluid intake:

1. Provide fluid breaks at scheduled times during the day.
2. Make fluids readily available.
3. Remind individuals to drink.
4. Encourage consumption of fruit and vegetables high in water content.
5. Do not assume you know how much a person should drink in a day; consult with a dietitian or the primary care physician to ensure you are following safe fluid intake guidelines (Schols, De Groot, Van der Cammen & Rikkert, 2009).

Seizure Disorders are very common amongst the IDD population. For individuals diagnosed with seizures there is a strong correlation between the level of intellectual disability and prevalence of seizures. Support for individuals who suffer from seizures are as follows:

1. Follow First Aid/CPR training for staff and family. Keep the person safe by protecting the head and moving objects out of the way, monitor breathing, and note the time the seizure activity begins.
2. Implement protocols to help staff identify when calling 911 is required and can avoid unnecessary ER visits or hospitalizations.
3. Ensure seizure medications are given as prescribed.
4. Discuss prevention during ISP planning meetings, recognition of symptoms, and safety measures for all service settings.
5. Report any changes to seizure presentation and frequency (CDC, 2018).

Constipation is a condition which is characterized by several factors such as straining to defecate, hard stool, frequency (less than (2) bowel movements per week), and the sensation of incomplete defecation of stool (Talley, 2004). There are several risk factors which increase the prevalence of constipation in individuals with intellectual and developmental disabilities.

Untreated constipation puts an individual at higher risk for bowel obstruction. When treatment for a bowel obstruction is delayed, the risk for a poor outcome increases (Ramanathan et al., 2017). Individuals on medications for constipation or those who have a history of bowel obstruction should be monitored and have a protocol for staff to follow. Something as simple as ensuring an individual stays hydrated can make a positive difference in bowel movements.

App of the Month



Drugs.com Medication Guide

The easiest way to lookup drug information, identify pills, check interactions and set up your own personal medication records. All mobile-optimized to speed up your browsing experience. Available for Android and iOS devices. (*App of the Month is not endorsed by DBHDS OIH. User accepts full responsibility for use.*)

References

- Anderson, L., Humphries, K., McDermott, S., Marks, B., Sisarik, J., & Larson, S. (2013). The state of the science of health and wellness for adults with intellectual and developmental disabilities. *Intellect Dev Disabil*, 51(1), 385-398. Doi: 10.1352/1934-9556-21.5.385
- Centers for Disease Control and Prevention. (2018). *Managing epilepsy well checklist*. Retrieved from <https://www.cdc.gov/epilepsy/research/MEW-network.htm>
- Cleveland Clinic. (2019). *Dehydration*. Retrieved from <https://my.clevelandclinic.org/health/treatments/9013-dehydration>
- Fronius, M., Clauss, W. G., & Althaus, M. (2012). Why do we have to move fluid to be able to breathe? *Frontiers in physiology*, 3, 146. <https://doi.org/10.3389/fphys.2012.00146>
- Jasien, J., Capone, G., Silverman, W., Shapiro, B., Weadon, C., Rivera, T., & Gonzalez-Frenandez, M. (2016). Signs of aspiration in adults with Down syndrome: Prevalence as determined using water-swallowing screen and caregiver report. *J Neurol Neurobiol*, 2(2).
- Mayo Clinic. (2019). *Dehydration: Overview*. Retrieved from <https://www.mayoclinic.org/diseases-conditions/dehydration/symptoms-causes/svc-20354086>
- Ramanathan, S., Ojili, V., Vassa, R., & Nagar, A. (2017). Large bowel obstruction in the emergency department: Imaging spectrum of common and uncommon causes. *Journal of clinical imaging science*, 7, 15. https://doi.org/10.4103/jcis.JCIS_6_17
- Robertson, J., Hatton, C., Emerson, E., & Baines, S. (2015). Prevalence of epilepsy among people with intellectual disabilities: A systematic review. *Seizure*, 29, 46-62. Doi: 10.1016/j.seizure.2015.03.016
- Schols, J., De Groot, C., Van der Cammen, T., & Rikkert, M. (2009). Preventing and treating dehydration in the elderly during periods of illness and warm weather. *J Nutr Health Aging*, 13(2):150-7. doi: 10.1007/s12603-009-0023-z
- Talley, N.J. (2004). Chronic constipation: Definitions, epidemiology, and impact of chronic constipation. *Reviews in Gastroenterological Disorders*, 4, S3-S10. http://medreviews.com/sites/default/files/2016-11/RIIGD_4Suppl2_S3_0.pdf

July 2020

Office of Integrated Health

Announcing a **FREE virtual Special Needs Dentistry Training** presented by Kami A. Picitelli, BSDH, RDH, VDH Special Needs Oral Health Coordinator in calibration with Office of Integrated Health at DBHDS.

To be held on **Tuesday July 21, 2020 from 10:00 am to 12:00 pm in Zoom for Healthcare**. Participants can learn how to deliver the best oral care to even the most challenging clients: support clients who need improved oral care and prevent diseases of the mouth through good oral hygiene. Upon completion, participants will have the information and tools to present the program in their home agencies for staff training.

Register at <https://www.surveymonkey.com/r/9JBSK5W>



Dental Facts and Tips From the OIH Dental Team

Tooth brushing is an accepted daily routine for good oral health, but flossing is equally important. Brushing cleans the surfaces of teeth, while flossing can: remove bacteria, plaque and food build-up in-between teeth; eliminate bad breath; and reduce the risk of cavities, tooth decay, and gum disease (ADA, 2005). Flossing should be done at least once a day in order to properly clean the areas that toothbrushes cannot reach. If you are not a routine flosser, you may experience discomfort and/or minor bleeding the first few days you floss. To properly floss, you should dispense about 18 inches of floss. Next, wrap the floss around the middle finger of one hand and wrap the remaining floss around the same finger on the opposite hand. Holding the floss between your thumbs and forefingers, gently guide the floss down both sides of each tooth, forming the motion of the letter "C" (ADA, 2005). There are numerous [flossing tools](#) that can make flossing easier to incorporate into your daily oral hygiene practices. The ADA also has printable [handouts](#) and [videos](#) you can watch to help you learn how to floss: For more information regarding dental facts, tips or dental service inquiries please email the DBHDS Dental Team at dentalteam@dbhds.virginia.gov

References

- American Dental Association (2005). How to floss.
https://www.ada.org/-/media/ADA/Science%20and%20Research/Files/watch_materials_floss.ashx
American Dental Association (2020). How to floss. [Video]
<https://www.facebook.com/AmericanDentalAssociation/videos/10153581278637167/>

ABA Snippets



FBA Drives Function-Based Behavior Support Planning

Behavior support plans (BSP) must be rooted in the results of functional behavior assessment (FBA) and incorporate function-based treatment approaches. Functional behavior assessment is a process behaviorists utilize to determine the variables that are maintaining challenging behavior (Hanley, 2012). Relying on FBA processes "dignifies the treatment development process by essentially 'asking' the person why he or she is in engaging in problem behavior prior to developing a treatment" (Hanley, 2012, p. 55). Function-based treatment approaches incorporate behavior change tactics that correspond to contingencies discovered in the FBA process (Geiger et al., 2010). For example, if FBA results suggest that a behavior is communicating an attention function, the selected interventions should also address an attention function. In discussing preventative behavior analysis and early intervention for youth at risk for developing challenging behavior, Ala'i-Rosales et al. (2019) indicated that the established current approach on the assessment and treatment of problem behavior involves FBA and implementation of a function-based treatment. Simply put, interventions should incorporate tactics that match what the behavior is communicating. Behaviorists and consumers of behavioral services alike should be aware that best practice suggests that FBA drives behavior support planning, and that behavioral treatment packages should incorporate function-based interventions.

References

- Ala'i-Rosales, S., Cihon, J.H., Currier, T.D.R., Ferguson, J.L., Leaf, J.B., Leaf, R., McEachin, J., & Weinkauff, S.M. (2019). The big four: Functional assessment research informs preventative behavior analysis. *Behavior Analysis in Practice*, 12(1), 222-234.
Geiger, K.B., Carr, J.E., LeBlanc, L.A. (2010). Function-based treatments for escape-maintained problem behavior: A treatment-selection model for practicing behavior analysts. *Behavior Analysis in Practice*, 3(1), 22-32.
Hanley, G.P. (2012). Functional assessment of problem behavior: dispelling myths, overcoming implementation obstacles, and developing new lore. *Behavior Analysis in Practice*, 5(1), 54-72.



Coronavirus/COVID-19

The COVID-19 pandemic is a rapidly evolving situation. The following links will help you stay up-to-date with the latest information. To submit COVID-19 questions (for response in an upcoming DBHDS FAQ), please email stephanie.waite@dbhds.virginia.gov

Latest Resources for CSB's & Other Licensed Providers: DBHDS – Frequently Asked Questions [05/28/2020]

<http://www.dbhds.virginia.gov/assets/doc/EI/dbhds-covid-19-5.28.20.pdf>