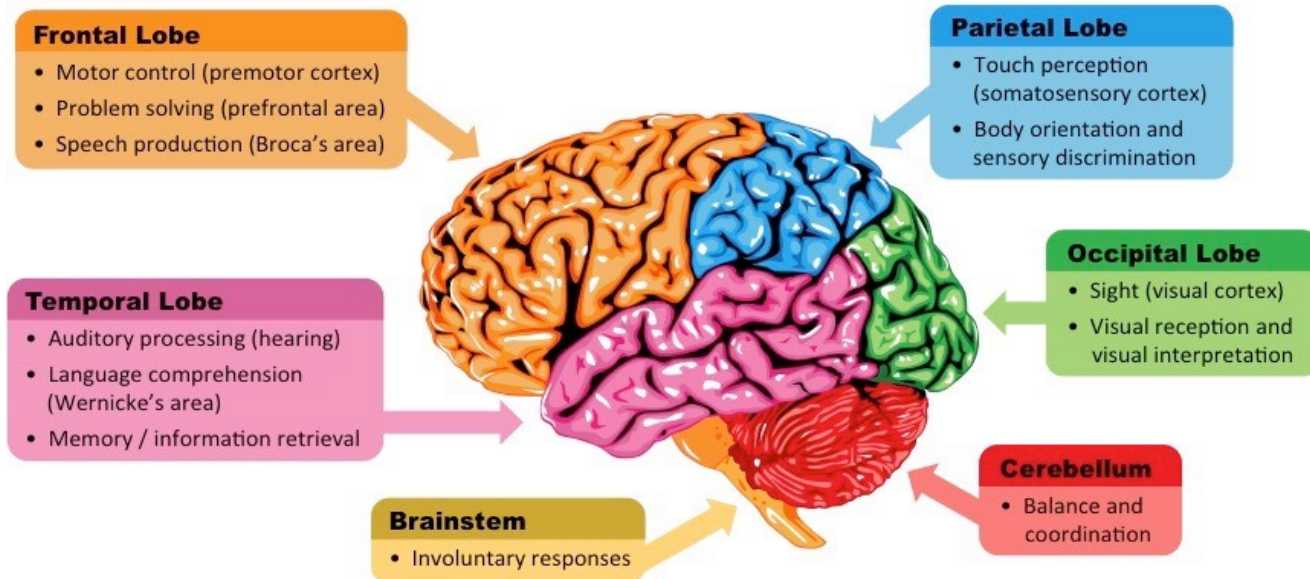


TBI, The Brain and Exercise

By Angela Waggoner and Sagen Blackwell



Researchers estimate that sixty-nine million individuals worldwide are estimated to sustain a TBI each year. (Dewan et al., 2018) A TBI is caused by a bump, blow, or jolt to the head that disrupts the normal function of the brain (Greco et al., 2019). The severity of a TBI may range from “mild” (i.e., a brief change in mental status or consciousness) to “severe” (i.e., an extended period of unconsciousness or memory loss after the injury). TBIs contribute to about 30% of all injury deaths (Aldossary, Kotb, & Kamal, 2019, Dewan et al., 2018). Effects of TBI can include impaired thinking or memory, movement, sensation (e.g., vision or hearing), or emotional functioning (e.g., personality changes, depression) (Archer, 2012). TBI can lead to suicide, PTSD, mood disorders, substance and alcohol issues, and impulsive behaviors (Moore et al., 2019) and have lasting impacts on the individual, family, and community (Clasen, 2018, Pinto, Newman, & Hirsch, 2018). Research indicates that exercise can be used to help mitigate these symptoms (Weinstein et al., 2018, Wise et al., 2018, Yoon & Kim, 2018). Studies indicate that aerobic exercise can help moderate the symptoms of TBI (Devine et al., 2016, Lio et al., 2019, Morris et al., 2018, Ko et al., 2018, Leddy et al., 2018, Sullivan, Hills, & Iverson, 2018) and this presentation will discuss the findings. In this presentation participants will learn about the brain, how TBI impacts the brain, and how exercise can be used to promote holistic client wellness.

OUTLINE

Introduction: Composition of the brain: Brain play dough activity

Body: Which parts of the brain are affected by trauma? TBI and the Brain

Activity: Exercise and TBI/Informative activity

Conclusion: Wrap up & Questions

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