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doi: <https://doi.org/10.57709/36974680>

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**Breaking Barriers: Program Development for Enhancing Communication between Law
Enforcement and Brain Injury Survivors for Safer Encounters**

by

Colleen Johnson

A Capstone Project Presented to the
FACULTY OF OCCUPATIONAL THERAPY
GEORGIA STATE UNIVERSITY

In Partial Fulfillment of the
Requirements for the Degree
OCCUPATIONAL THERAPY DOCTORATE

April 2024

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Colleen Johnson

CAPSTONE FINAL PAPER APPROVAL FORM

The Capstone Final Paper is the final product that the OTD students need to complete to report his/her Capstone Project and his/her Capstone Experience.

Student's Name	Colleen Johnson
Degree Sought	Occupational Therapy Doctorate (OTD)
Department	Occupational Therapy
Program	Occupational Therapy Doctorate (OTD)

We, the undersigned, recommend that the Capstone Final Paper completed by the student listed above, in partial fulfillment of the degree requirements, be accepted by the Georgia State University.

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Acknowledgement

First and foremost, I would like to thank God for the grace, guidance, and resilience that He has given me to finish this capstone project and pursue my doctorate degree in occupational therapy.

I want to thank my family for their endless support, love, and encouragement they have shown me throughout my academic career.

To my friends, thank you for your unwavering support and your belief in my abilities to reach this milestone in my life.

I want to thank my cohort, class of 2024, for walking alongside me in this journey to help me become the best occupational therapist that I can be.

I want to thank my Site Mentors, Morgan Barnett and Jane Jackson, for providing such wonderful knowledge and guidance throughout the process of successfully completing my capstone project.

Abstract

Background:

The nature of brain injury often presents itself in various behavioral and emotional ways that affect communication input and output. Brain injury survivors can sometimes have behaviors and emotions that present in forms of aggression, emotional dysregulation, and confusion. Many communities within society lack the awareness of recognizing and understanding communication problems experienced by individuals with brain injuries, thus increasing the challenges with communication that brain injury survivors face. This is particularly important with law enforcement. Law enforcement providers hold a valuable responsibility to ensure safety and advocacy for themselves and brain injury survivors when an encounter arises. It is essential for law enforcement agencies to receive training on successfully handling individuals with brain injuries to ensure more effective and empathetic communication in such encounters.

Purpose:

The purpose of this capstone project is to develop an educational course for law enforcement providers to address the need for understanding common communication deficits associated with brain injuries. Additionally, this project aims to develop a social skills program for brain injury survivors to alleviate communication barriers between the two parties during encounters.

Methods:

A literature review was conducted to obtain a broad spectrum of research to understand the importance of social skills programs and interactive educational courses for the purpose of decreasing communication barriers between brain injury survivors and law enforcement personnel.

Outcome:

Two programs were developed for the purpose of placing an emphasis on the importance of brain injury education within the criminal justice system. The first program was designed to be an educational course for law enforcement personnel, while the second program was designed for brain injury survivors to provide a support system for increasing confidence in social skills.

Conclusions:

The importance of providing an occupational therapy perspective to law enforcement personnel regarding advocacy for the brain injury population in order to establish reduction of communication barriers between the two parties during encounters was addressed through the development of the two programs. A sustainability plan was established for future implementation.

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Summary Pages

Background

Social skills support groups and interactive education programs for both law enforcement providers and brain injury survivors offers “positive change in communication skills” (Linden et al., 2020). Both law enforcement providers and healthcare professionals hold a valuable responsibility to ensure safety and advocate for themselves and brain injury survivors when an encounter arises, since people with brain injury often do not “recognize themselves as having a TBI” (Linden et al., 2020). The limitations in the research state that law enforcement providers need adequate training in encounters with those who suffer from mental health concerns. The research also states that the brain injury community typically suffer from drastic changes in behavior and lacking social skills and would benefit from training courses that may increase their confidence in social competence and improve overall communication skills (O'Rourke et al., 2018). The purpose of my capstone project is to provide education to law enforcement providers regarding the understanding of social skills that people with brain injury use during encounters, to address specific interaction barriers between the brain injury community and law enforcement providers, and to decrease these communication barriers between the two parties. Therefore, the purpose of the capstone project is to decrease the gaps that have been shown within the literature. These gaps predominantly include a lack of education within law enforcement training and an insufficiency of services offered for brain injury survivors within the community. Additionally, the capstone project aims to develop a support group for brain injury survivors to ensure their confidence in improving social interactions. My clinical question addresses the need to understand if social skills training sessions and in-depth educational programs are effective for both law enforcement providers and the brain injury community in decreasing communication

barriers during encounters. To answer this clinical question, the research states that more advanced and extended training sessions for law enforcement are needed for adequate preparation in the field (O'Rourke et al., 2018). The research also states that social skills classes offered by social workers and healthcare professionals for people with mental health conditions significantly increased positive perception of communication skills (Loucks, 2013).

Research Question

Are social skills programs and interactive educational courses effective in decreasing communication barriers between brain injury survivors and law enforcement providers during encounters?

Purpose Statement

The purpose of this capstone project is to develop an educational course for law enforcement providers informed by credible literature to address the need for understanding common communication deficits associated with brain injuries. Additionally, this project aims to develop a social skills program for brain injury survivors to alleviate communication barriers between the two parties during encounters. Both programs are only being developed, not implemented or evaluated.

Specific Aims/Objectives

Specific Aims One:

A formal literature review was conducted to gain an understanding of the overview of the need for a supportive program for brain injury survivors as they navigate their everyday lives living with a brain injury. The investigative approach employed in

the literature review aimed to capture a broad spectrum of research on brain injuries, mostly involving traumatic brain injuries (TBI) and its various dimensions, including educational services, social competence, law enforcement education, probation services, incarceration, recidivism, law enforcement response to domestic violence, and innovative interventions for communication skills training. The initial search began with the utilization of PubMed, Google Scholar and PsycINFO, ensuring the validity and reliability via a thorough examination of the available literature. Key terms that were included in the search comprised of "traumatic brain injury," "TBI and education," "TBI and social competence," "law enforcement education about TBI," "misconceptions about TBI," "TBI in prison populations," "TBI and recidivism," and "law enforcement response to head injury victims in domestic violence." The inclusion criteria prioritized studies published in peer-reviewed journals, focusing on recent and relevant contributions, with the oldest article dating back to 2013. The selected references within the review provide data from different settings that span across diverse contexts such as educational institutions, correctional facilities, and law enforcement precincts to gather a comprehensive overview of the current knowledge landscape surrounding brain injuries.

These studies collectively accentuate the individual and complex nature of brain injuries, putting an emphasis on the importance of tailored interventions across a variety of settings. There is an immediate need for brain injury education within the criminal justice system, healthcare settings, and the academic field to enhance support systems and overall well-being for brain injury survivors (Linden et al., 2020; Richards et al., 2021). Data suggest the development of an educational course for law enforcement providers is essential for addressing this urgent need (Glang et al., 2015). It can be beneficial for

improving the understanding of common communication deficits associated with brain injuries for professionals who work with brain injury survivors (O'Rourke et al., 2018). Such an initiative could empower more people to navigate the intricate complexities of brain injuries to ensure more effective and compassionate interactions (Glang et al., 2015; Loucks, 2013; O'Rourke et al., 2018).

Specific Aims Two:

Two programs were developed for the purpose of creating a bridge between law enforcement personnel and brain injury survivors with regard to decreasing communication barriers between the two parties during encounters. The first program is an educational course for law enforcement personnel, while the second program is a social skills support group program for brain injury survivors. The law enforcement course, named *Brain Injury Response for Law Enforcement*, provides 4 total hours of educational material and is designed to be offered twice a week for 2 total weeks. The course contains material that addresses an overview of brain injury including signs and symptoms and changes that occur with behavior, personality, emotional regulation, and self-awareness. Common communication deficits and needs for brain injury survivors is also addressed to raise awareness for law enforcement officers. Other items discussed within the course include current research statements with regard to encounters between law enforcement officers and brain injury survivors and discussions of the needs of law enforcement officers in the field with regard to understanding communication needs and deficits of brain injury survivors during encounters. The social skills support group for brain injury survivors, named *Social Circuit Squad*, consists of 4 total session hours, 4 total times in capstone experience, with 1-2 hours of time each session. The course's

name is significant with relation to the topics of conversation that will be addressed in the program. The *Social* aspect of the program addresses the social skills needs that brain injury survivors require during social interaction. The *Circuit* aspect involves addressing circles of communication to help brain injury survivors maintain long-term interaction. Finally, the *Squad* aspect allows the program to address the importance of peer support and the positive impact that human connection and community can have on an individual. This program was designed to allow brain injury survivors to discuss their issues with social skills, how to help others understand their communication needs, and provide support for how to enhance communication input and output during times of stress.

Outputs and Significance of Outcomes

The primary significance of program development was to establish a decrease in communication barriers and heightened feelings emotional dysregulation between law enforcement and brain injury survivors during encounters. An occupational therapy perspective was provided to law enforcement providers for the purpose of advocacy for the brain injury population in order to establish reduction of communication barriers between the two parties during encounters successfully. Finally, a sustainability plan was established to have the completed *Brain Injury Response for Law Enforcement* course for law enforcement providers and the completed *Social Circuit Squad* Program implemented for human subjects who are interested in participating in their respective programs. The impact and significance of the capstone project allowed for a public awareness product to be established to educate the community about brain injuries and the challenges that survivors face during interactions with law enforcement providers. For implementation purposes that will be conducted as a part of the

sustainability plan in the future by another student, these programs will hopefully allow communication barriers to decrease between law enforcement personnel and brain injury survivors along with helping establish an improved connection between the two communities.

Chapter 1: Literature Review

Introduction

Brain injuries can have a profound impact on an individual's life, affecting various aspects of physical and mental health, social interaction, and community participation (O'Rourke et al., 2018). One of the most fundamental aspects of human interaction that is affected after a brain injury includes the use of communication (O'Rourke et al., 2018). Communication is often significantly affected in individuals with brain injuries, and understanding the associated communication needs and deficits is essential for interaction with brain injury survivors (Linden et al., 2020). Understanding the multifaceted nature of brain injuries and how they influence an individual's ability to express themselves, connect with others, and engage in meaningful social interactions can reduce communication barriers during interaction (Rietdijk et al., 2020).

The nature of brain injury often presents itself in various behavioral and emotional ways that affect communication input and output. Brain injury survivors can sometimes have behaviors and emotions that present in forms of aggression, emotional dysregulation, and confusion (O'Rourke et al., 2016). These behavioral problems in brain injury survivors often arise due to complex challenges they face in expressing themselves and engaging with others. Expressive difficulties may stem from impairments in language processing, word retrieval, and the formation of coherent thoughts (Linden et al., 2020). Additionally, survivors often struggle with the social and emotional aspects of communication, finding it challenging to navigate the subtleties of non-verbal cues and social interactions (Glang et al., 2015). Frustration and the sense of isolation can intensify behavioral issues as survivors grapple with the discrepancy between their thoughts and their ability to convey them (Linden et al., 2020). Furthermore, the

misunderstanding from communication partners may contribute to survivors' increased irritability and impatience with communicating effectively (O'Rourke et al., 2018).

Since the nature of brain injury often presents itself through disruptions and difficulties in communicative functions, brain injury survivors require specific communication needs depending on the type and severity of the brain injury. Some of the most common needs related to communication support include structured communication, advocacy, and assistance with improving social communication skills (Glang et al., 2015). When communication needs are not met during interaction, communication deficits can arise in various forms of behaviors and emotions (Linden et al., 2020).

Many communities within society lack the awareness of recognizing and understanding communication problems experienced by individuals with brain injuries, thus increasing the challenges with communication that brain injury survivors face (Linden et al., 2020). This is particularly important with law enforcement. O'Rourke et al. (2018) states that law enforcement personnel hold misconceptions associated with the effects of brain injury and work very closely to the brain injury population due to the unpredictable nature of behaviors of many brain injury survivors. This unpredictability may lead to misunderstandings and misinterpretations by law enforcement officers due to the lack of education offered in police academy, potentially escalating situations unnecessarily (Richards et al., 2021). Additionally, brain injury survivors' impaired communication abilities can hinder their capacity to provide coherent and concise responses to law enforcement officers, further complicating interactions (O'Rourke et al., 2018). It is essential for law enforcement agencies to receive training on successfully handling individuals with brain injuries to ensure more effective and empathetic communication in such encounters (Glang et al., 2015). Consequently, this literature review aims to provide an overview

of the need for support in improving social skills and communication for brain injury survivors while emphasizing the imperative of reducing communication barriers between this population and law enforcement, considering the personality, behavioral, and emotional changes associated with the occurrence of a brain injury.

Search Strategy

The investigative approach employed in this comprehensive literature review aimed to capture a broad spectrum of research on brain injuries, mostly involving traumatic brain injuries (TBI) and its various dimensions, including educational services, social competence, law enforcement education, probation services, incarceration, recidivism, law enforcement response to domestic violence, and innovative interventions for communication skills training. The initial search began with the utilization of PubMed, Google Scholar and PsycINFO, ensuring the validity and reliability via a thorough examination of the available literature. Key terms that were included in the search comprised of "traumatic brain injury," "TBI and education," "TBI and social competence," "law enforcement education about TBI," "misconceptions about TBI," "TBI in prison populations," "TBI and recidivism," and "law enforcement response to head injury victims in domestic violence." The inclusion criteria prioritized studies published in peer-reviewed journals, focusing on recent and relevant contributions, with the oldest article dating back to 2013. The selected references within the review provide data from different settings that span across diverse contexts such as educational institutions, correctional facilities, and law enforcement precincts to gather a comprehensive overview of the current knowledge landscape surrounding brain injuries.

Study Designs and Interventions

The interviews conducted in Richards et al., 2021, aimed to understand the barriers to police supporting domestic violence victims and victims of head injury (Richards et al., 2021). Interviews took place in private rooms (Richards et al., 2021). Several themes identify that there is significant increase in criminal behavior with the prevalence of TBI, indicating that individuals with a history of TBI are more likely to engage in recidivism compared to individuals without a TBI (Richards et al., 2021). This association emphasizes the importance of the detrimental impact on recidivism and the significance of addressing rehabilitation efforts within the criminal justice system, as supported by the authors (Richards et al., 2021). Similarly, O'Rourke et al., 2018, examines the misconceptions about TBI among probation services and reveals a lack of understanding and awareness regarding brain injury education among police officers. Addressing these misconceptions is crucial for improving the effectiveness of brain injury education for law enforcement providers for promoting safer encounters. This is also supported by Ray and Richardson, 2017, as there is a pressing need for tailored interventions within correctional facilities to support brain injury survivors in prison and reduce their likelihood of re-incarceration. O'Rourke et al., 2016, presents a systematic review focusing on co-occurring problems in prison populations with TBI prisoners. The authors suggest a high prevalence of incarcerated individuals with a TBI due to behavioral changes that arise after TBI diagnosis (O'Rourke et al., 2016). Many incarcerated brain injury survivors experience behavioral challenges due to the physical changes in the brain and are in need of comprehensive support services to improve their overall well-being throughout their sentence (O'Rourke et al., 2016).

A cross-sectional structured interview design was utilized to compare social competence outcomes among offenders with TBI, offenders without TBI, and non-incarcerated controls- non-incarcerated with TBI (Linden et al., 2020). Offenders with TBI experience social difficulties

compared to their counterparts as well as having a lack of social functioning leading to behavioral issues within social interactions, as supported by Linden et al., 2020. Loucks' study (2013) focuses on educating law enforcement officers about mental illnesses, supporting the importance of providing in-depth education and training to law enforcement officers to effectively respond to calls related to mental health issues. Similarly, the clinical trial investigation in Rietdijk et al. (2020), supports both telehealth and in-person training interventions for law enforcement officers to improve their communication skills within the field. The survey conducted in Glang et al. (2015), highlights the significant variation of levels of services and support systems across different states' academic settings. Consequently, there is a need for consistent support systems for brain injury survivors across all states, especially for students, as supported by Glang et al. (2015).

Outcome Measures

The outcome measures utilized throughout the various studies range from informal interviewing techniques to standardized assessments (O'Rourke et al., 2018, Richards et al., 2021). The variety of outcome measures reflected the complex nature of brain injury assessment as well as the assessment of community education and awareness on brain injuries (Ray and Richardson, 2017, O'Rourke et al., 2018). The outcome measures' results were viewed to assess the best way to inform the community on brain injury awareness and how brain injury survivors and law enforcement providers improve communication skills and social confidence (Loucks, 2013). Specifically, the outcome measures' results allowed for the capstone project to enhance the development of the educational course for law enforcement officers and the support-group program for brain injury survivors through understanding current attitudes and behaviors of police officers, specific challenges that both parties face with communication abilities, and how

to target interventions to address those specific challenges and needs (Borum et al., 1998). These results of the outcome measures allowed for the generation of tailored program development (Rietdijk et al., 2020). Additionally, these outcome measures have the potential to be used in the future by program implementers for the purpose of assessing the reliability of the capstone programs and data collection for tailoring interventions for the specific needs of program participants (Vermette et al., 2005). The intended potential use of the outcome measures is stated within the Sustainability Plan/Implementation Plan.

Richards et al. (2021) focuses on informal interviewing with open-ended questions that determined police officers' feelings of vulnerability when interacting with victims of head injuries. Common Misconceptions about TBI (CM-TBI) questionnaire was the standard outcome measure used in O'Rourke et al. (2018) and determined the significant prevalence of brain injury misconceptions among individuals without a brain injury. The Ohio State University Traumatic Brain Injury Identification (OSU-TBI-ID) was the outcome measure used in Ray and Richardson (2017) and was used for helping the reader understand the lifetime history of how a TBI decreases the ability to communicate effectively.

The Brain Injury Screening Index (BISI) was utilized O'Rourke et al. (2016) to show the decline in physical and mental health after incarceration in inmates with an ABI. The General Health Questionnaire was used to display the increased health problems of inmates with TBI compared to those without TBI (O'Rourke et al., 2016). The Law Enforcement Survey was employed in Loucks (2013) to show the benefits and needs of specific educational components to increase brain injury awareness in the community. State Directors of Special Education and brain injury consumer organizations within the study of Glang et al. (2015) were surveyed to show the lack of services and supports provided to students with TBI in different educational agencies

across different states. Overall, the summary of the outcome measure results concludes the need for an increase in brain injury awareness and education, specifically with communication abilities and social behaviors, specifically in the law enforcement community. Specifically, the Common Misconceptions about TBI (CM-TBI) used in O'Rourke et al. (2018) and The Law Enforcement Survey used in Loucks (2013) would be appropriate to use for assessing the capstone project programs for the purpose of successful program implementation. Both outcome measures show the lack of education in the community that exists regarding brain injury awareness and supports the need for the capstone project programs. Refer to the Sustainability Plan/Implementation Plan for the future potential use of the Common Misconceptions about TBI questionnaire and The Law Enforcement Survey.

Synthesis of Findings

Data analysis suggests that police officers usually hold conflicting attitudes toward domestic violence victims, shaped by experiences of powerlessness when faced with injured victims in tense and intimate disputes (Richards et al., 2021). While police expressed sympathy and a desire to help victims of domestic violence and head injury, they also conveyed frustration when victims did not disclose their full injuries, refused domestic violence perpetrator arrests, or declined medical help after domestic violence dispute (Richards et al., 2021). Overall, data analysis indicated two major significant barriers to police supporting victims of domestic violence and head injury: reduced resources and vulnerability to external blame (Richards et al., 2021). Similarly, misconceptions about TBI and offenders having no awareness of their brain injury have led to inaccurate court reporting which leads to inaccurate sentencing (O'Rourke et al., 2018). Most importantly, there is a need for clear and tailored information on identifying TBI, understanding the outcomes and challenges associated with such injuries, and the procedure

for accessing the correct services and pathways of care for people with TBI (O'Rourke et al., 2018). Ray and Richardson's (2017) findings suggest that most of the inmates with a TBI were more likely to relapse in criminal activity or illegal behavior post release than those without TBI. Those with TBI tended to experience a greater number of prior lifetime arrests than those without a TBI (Ray & Richardson, 2017, Richards et al., 2021, O'Rourke et al., 2016).

When looking at the relationship between TBI and social competence among young men, adolescent offenders with a TBI experience heightened vulnerability and susceptibility and need rehabilitative assistance to support their time in prison and with reintegration into society (Linden et al., 2020). Findings within Loucks (2013) show that police officer departments are experiencing an increase in prevalence of calls and feeling inadequately prepared to properly communicate with individuals experiencing mental health issues due to social competence difficulties. Social communication skills training for brain injury survivors, whether conducted through telehealth or in-person methods, resulted in participants' perception of positive improvements in their communication abilities (Rietdijk et al., 2020). With regard to addressing the inaccuracy in identification rates within academic settings, professional development workshops for educators, mandatory in-school student screenings, and improved reporting and communication from medical personnel were some of the ways that the survey respondents wanted to address this inaccuracy (Glang et al., 2015).

Gaps in the Literature

There are several gaps in the literature that need to be addressed for the purpose of developing an educational course for law enforcement providers as well as designing a support group program for brain injury survivors. There is a significant problem associated with the lack of education provided to law enforcement personnel regarding a general understanding of brain

injuries and the communication needs and deficits of brain injury survivors (Loucks et al., 2013). The biggest issue is that the law enforcement community does not feel adequately prepared to intervene and properly communicate with those affected by a brain injury (Loucks et al., 2013). With regard to the brain injury community, the biggest gap reveals that most who suffer from a brain injury do not recognize that they in fact have an actual diagnosis of a brain injury (O'Rourke et al., 2018). Therefore, self-report of TBI is prone to be both under-reporting and may demonstrate false recall of injuries (O'Rourke et al., 2018). This has led to a diminished amount of support offered for the brain injury population with regard to post-injury recovery and community re-entry (O'Rourke et al., 2018). The literature states that the deficits of a brain injury, specifically, are not addressed in educational courses and programs for law enforcement providers as well as for those who go through police academy (Loucks et al., 2013).

The study limitations associated with Richard et al. (2021) state that the investigation of police responses to victims of head injury due to domestic violence was the first of its kind, which allowed for unique insight into police officers' anxiety around victims of head injury. Other study limitations included a disproportionate sample size, as the participants who were interviewed for the study consisted of 30.6% male officers and only 16.6% female officers (Richard et al., 2021). With regard to those who fall within the incarcerated brain injury community, sample sizes for studies were small when comparing to a match-control group (Richard et al., 2021). It was not possible to recruit sufficient numbers of young offenders without brain injury, which was the ideal group for comparison (Richard et al., 2021). Another interesting limitation included the rare discussion of members of the LGBTQ+ population, who are often neglected from consideration in domestic violence research and intervention (Richard et al., 2021). The fourth and final study limitation of Richard et al. (2021) included the influence

of self-selection and self-report bias. In this specific article, self-selection likely produced only the participants who held an interest around domestic violence victims. Therefore, this study only concludes the results of only part of the overall story of police officer responses to victims of head injury and domestic violence (Richard et al., 2021). Consequently, further research will need to be conducted to close these gaps within the literature (Richards et al., 2021).

Linden et al., 2020 explains how young offenders with TBI experience heightened vulnerability and need rehabilitative input to support their time in prison and return to the public community. O'Rourke et al. (2018) stated that their first limitation included a low response rate of 25% from participants willing to answer the survey. Additionally, the majority of the respondents were female, which forces the analysis of results to be skewed because of gender differences (O'Rourke et al., 2018). Another major limitation showed the beliefs of TBI being different for men and women, as women were seen to be less prejudicial than men (O'Rourke et al., 2018). Most of the limitations in this article addressed gender differences with regard to misconceptions about TBI, so further research needs to be conducted to increasing the specificity of the data and decrease generalizability of analysis of survey results (O'Rourke et al., 2018). Overall, misconceptions about brain injury were recorded as high, thus placing a lot of emphasis on addressing the "training deficit within probation services" (O'Rourke et al., 2018).

Ray & Richardson (2017) were unable to detect any underlying causal mechanisms, such as personality disorders, that might be linked to an increase in risk for people who have a TBI. Further research will need to be conducted to accurately measure the relationship between TBI and self-reported criminal behaviors (Ray & Richardson, 2017). O'Rourke et al., 2021 states that the limitations include the lack of focus on sub-sets of the prison population. For example, the researchers chose to focus their studies on the general adult population in the prison system

(O'Rourke et al., 2021). However, studies were not chosen for the systematic review if the studies' participants included elderly men and women, convicted murderers, or offenders on death row (O'Rourke et al., 2021). In addition, this article lacked the inclusion criteria of articles published in English, which limited the number of studies included in the review (O'Rourke et al., 2021). Rietdijk et al., 2020, is relevant for addressing how well social communication skills training programs led to perceived positive changes in communication skills for people who have a brain injury (Rietdijk et al., 2020). O'Rourke et al., 2021, discusses how probation officers have an over-reliance on brain injury survivors to identify, understand, and communicate the extent and severity of their injuries, which allows for my capstone project to fill in these gaps in literature with regard to the addressing this statement in the educational course for law enforcement providers. Glang et al., 2015, is vital for supporting the development of a capstone project in establishing a program that addresses ways to expand social support systems and emotional regulation techniques for brain injury survivors (Glang et al., 2015).

Discussions

The lack of education in law enforcement regarding the unique communication needs of brain injury survivors poses a significant challenge to the effective provision of justice and occupational engagement for brain injury survivors. Brain injury survivors often face communication deficits that are, specifically, not adequately recognized by law enforcement providers, resulting in potential unjust treatments within the criminal justice system (Glang et al., 2015). For instance, a survivor's impaired cognition may hinder their ability to comprehend legal proceedings, leading to misunderstandings that affect their defense (O'Rourke et al., 2018). In other instances, law enforcement officers and legal professionals are not adequately trained to recognize the signs of a brain injury, potentially resulting in a failure to provide necessary

support or accommodations (Loucks, 2013). Additionally, individuals with brain injury may struggle to adhere to strict parole or probation conditions, setting them up for disproportionate punishment for unintentional violations (O'Rourke et al., 2018). These issues highlight the need for increased awareness and education within the law enforcement community to ensure fair treatment, safety, and equal access to community participation (Glang et al., 2015). Additionally, O'Rourke et al. (2018) states there is an urgent need for educational training and awareness within the law enforcement community to address these communication needs of brain injury survivors to ensure their safety and equitable access to community participation.

When looking at the recent literature, there are several factors that contribute to confirming the need for an educational course for law enforcement personnel. Data suggest that police officers have laboring and stressful jobs that lead them to have anxiety around victims of head injuries due to the unpredictable behavior of brain injury survivors (Richards et al., 2021). Data also indicates the commonality of misconceptions regarding brain injury awareness within probation services, which included law enforcement officers (O'Rourke et al., 2016). Furthermore, data suggest that brain injury survivors lack the healthcare resources they need, due to the significant and negative changes in health that brain injury survivors face (Linden et al., 2020). In order to design an educational course with accuracy of information and offer ways to increase in awareness of brain injuries, an educational course strictly designed for law enforcement personnel will need to be developed as a means of gaining continued education (O'Rourke et al., 2018). Contents from an updated literature review and information via a thorough needs assessment will need to serve as the basis of course material (Richards et al., 2021).

An educational course designed for law enforcement personnel will need to address communication barriers with brain injury survivors based on data shown. The course will need to offer content and material that encompasses a comprehensive range of the various types of brain injuries and their potential impacts on cognitive and communicative functions (O'Rourke et al., 2016). It should address the specific emotional and behavioral challenges that survivors often face (Glang et al., 2015). Subsequently, the curriculum should emphasize effective communication strategies and practical tools tailored to accommodate the diverse needs of brain injury survivors and to enhance interactions (Loucks, 2013). Topics should include the importance of clear and concise forms of language, non-verbal cues, and the cultivation of a supportive and patient demeanor (Rietdijk et al., 2020). Additionally, the course should incorporate case studies to facilitate a hands-on approach, enabling course participants to apply their knowledge in realistic contexts (Rietdijk et al., 2020). Through the presentation of literature data and practical applications, this course should aim to foster a more proactive and responsive approach among law enforcement personnel when engaging with individuals who have experienced brain injuries, ultimately harboring a safer community (Loucks, 2013; Richards et al., 2021).

Conclusion

This literature review consists of an assortment of studies that collectively contribute to understanding the multifaceted challenges that brain injury survivors face. Linden et al. (2020) explores the lack of social competence that TBI offenders experience, while O'Rourke et al. (2018) addresses the most common misconceptions about TBI within probation services and discusses the need for specific interventions for this surprisingly large population. Similarly, Ray and Richardson (2017) investigate the recidivism rate of prisoners with TBI, discovering that the

rate increases to 85% after an individual sustains a TBI. Through the administration of the OSU-TBI-ID, this study sheds light on the lacking ability of correctional systems to understand the detrimental effects that are associated with TBI (Ray & Richardson, 2017). Glang et al. (2015) examines the current services and supports in place for students with TBI in educational settings. Richards et al. (2021) bring a qualitative perspective, uncovering the influence of fear, vulnerability, and powerlessness on police officers' response to victims of head injury in domestic violence cases, inducing generalized anxiety when confronting these victims. Lastly, the clinical trial on social communication skills training (Rietdijk et al., 2020) suggests that proactive approaches to improve communication outcomes for TBI survivors creates positive changes in communication skills for brain injury survivors.

These studies collectively accentuate the individual and complex nature of brain injuries, putting an emphasis on the importance of tailored interventions across a variety of settings. There is an immediate need for brain injury education within the criminal justice system, healthcare settings, and the academic field to enhance support systems and overall well-being for brain injury survivors (Linden et al., 2020; Richards et al., 2021). Data suggest the development of an educational course for law enforcement providers is essential for addressing this urgent need (Glang et al., 2015). It can be beneficial for improving the understanding of common communication deficits associated with brain injuries for professionals who work with brain injury survivors (O'Rourke et al., 2018). Such an initiative could empower more people to navigate the intricate complexities of brain injuries to ensure more effective and compassionate interactions (Glang et al., 2015; Loucks, 2013; O'Rourke et al., 2018).

Chapter 2: Needs Assessment

Introduction/Background/Context

Effective communication serves as the foundation of building trust and fostering collaboration among communities. However, within the realm of law enforcement, encounters with brain injury survivors often present unique challenges. These challenges that brain injury survivors face mostly involve communication deficits stemming from cognitive impairments and the demands of law enforcement interactions can lead to misunderstandings and misinterpretations, ultimately leading to communication barriers that hinder the delivery of safe services. Recognizing the critical need to address these challenges, this needs assessment endeavors to explore strategies for decreasing communication barriers between law enforcement personnel and brain injury survivors. Through collecting data from stakeholders via informal interviews to examine the importance of decreasing communication barriers, meaningful interventions to promote understanding and effective communication within interactions between the two parties could be addressed.

Three stakeholders were interviewed for the purpose of completing the needs assessment. Two stakeholders served as Site Mentors from the Brain Injury Association of Georgia (BIAG) for the capstone project. Those two Site Mentors, Morgan Barnett and Jane Jackson, were both professionally qualified in delivering data for the needs assessment. Morgan currently serves as the Executive Director of BIAG, while Jane Jackson served as the former Executive Director. A third Site Mentor, Cassie Palmer, from BIAG was interviewed before Morgan Barnett took her place. Each Site Mentor gave valuable and reliable information that was crucial for gaining insight into the unique dynamics of what it means to live with a brain injury and identified opportunities for improving communication and fostering positive interactions for brain injury

survivors who encounter law enforcement personnel. The needs assessment was also approved as “not human subjects research” by the Georgia State University Institutional Review Board (IRB) H24376 after an application was submitted.

Objectives and Goals

The primary goal of the needs assessment for this capstone project was to identify and understand the communication barriers that exist between law enforcement personnel and brain injury survivors. By conducting this assessment, the aim is to gain knowledge into the challenges faced by both parties in their interactions and to uncover potential areas for improvement. The secondary goal was to assess the current level of awareness and understanding among law enforcement personnel regarding brain injuries and their impact on communication. Unfortunately, time did not allow for an interview to occur with law enforcement subjects, but questions were established for the purpose of the sustainability plan. The tertiary goal of the needs assessment was to explore the experiences, perspectives, and communication needs of brain injury survivors when interacting with law enforcement and the local community. Through the resources provided by the Site Mentors, achievement in a comprehensive understanding of the factors contributing to communication barriers allowed for the decision-making in development of strategies for the purpose of program development. These strategies were designed to enhance the overall interaction between brain injury survivors and law enforcement. Ultimately, the goal is to promote greater empathy and effectiveness in communication between law enforcement personnel and brain injury survivors, leading to more positive outcomes for both groups.

Methodology

The methodological approach was informal interviewing. This approach involved engaging in face-to-face, open-ended discussions with the Site Mentors. A total of nine questions were composed, and each of the Site Mentors answered them thoroughly. Through these interviews, a knowledge of deeper insights into the specific challenges faced by brain injury survivors when interacting with law enforcement was obtained. The informal nature of the interviews allowed for a more conversational and flexible approach in a comfortable environment, allowing the Site Mentors to share their concerns and recommendations on behalf of brain injury survivors and in a way for the Site Mentors to contribute to the development of effective interventions.

Key Findings

A series of questions were formulated to gain a better understanding of how to decrease communication barriers and to design a program developed for the purpose of providing a social skills support group for brain injury survivors. Each Site Mentor gave a variety of answers that were compared and contrasted. Through the development of the needs assessment and the gathering of information, there were several key points that merit highlighting.

- 1. What specifically does your facility need with regard to establishing a social skills support group program for improved communication during encounters between law enforcement and the brain injury community?** An education or training program is certainly needed for the purpose of educating our law enforcement community on the nature and behaviors associated with brain injuries. There is a current program through NASHIA, TARC and the Shepherd SHARE Program that has been utilized for the Georgia Dept of Corrections. However, there has been limited interest from the Georgia Dept of Corrections thus far. Law

enforcement training should involve de-escalation strategies in dealing with behaviors or the inability of someone to follow directions. BIAG currently utilizes the De-escalation Crisis Tips and free apps on Mindfulness from the Veterans Affairs Organization as a resource for their clients to employ during stressful situations. Funding for a program like this is a big need. Financial access to support, transportation services, and the ability to have working technology are the biggest barriers for brain injury survivors to participate in a support group program. Establishing partnerships with the law enforcement communities as well as local and state level governments are vital for gaining support.

- 2. Tell me about the people within the brain injury community that you work with that discuss with you personally about having issues with aggression, emotional regulation, or behavioral changes and subsequently have run-ins with the law?**

BIAG frequently works with clients that reach out requesting legal aid or advice for an incident with the law. Most of the cases are litigated or they are already incarcerated. BIAG tries to connect these people with nonprofit law centers and organizations that have brain injury knowledge for use in defense of their case. Communication is often a challenge for most brain injury survivors. Some survivors are finding the right words, struggling with stuttering or tone of voice, or are deaf. As a result, BIAG clients with communication issues express feelings of not being understood. Accordingly, BIAG provides educational materials from brainline.org to connect survivors with support groups and peers to discuss tools they can use. Having a person-centered approach is key in understanding to address the individual you are

working with, rather than speaking over or around them. Communication may look like breaking things down in a specific manner or with a set goal in mind and ensuring that the person you are addressing fully understands before moving forward. Not all brain injuries are alike so their needs will be particular to them for social skills interactions.

- 3. With regard to developing a successful social skills training and support group program for brain injury survivors, what are the strengths that you see potentially occurring that will help the brain injury population overcome any communication barriers?** Some of the helpful strategies that have been employed in current programs include teaching survivors skills such as keeping eye contact, learning to stay on topic, recognizing body language, using writing or pictures to communicate more easily, and learning to recognize when they sense anger, anxiety, or feeling out of place, and how to manage it through expressions of feeling frustrated or needing a break.

Conclusions

It is evident that an educational program is essential to properly equip the law enforcement community with the necessary tools and resources to enhance their understanding of brain injuries for using effective communication strategies within the field. While some existing resources such as the programs offered by NASHIA, TARC and the Shepherd SHARE Program are available, there is an immediate need for increased awareness and engagement from law enforcement agencies. In order to implement more programs for the purpose of supporting the

brain injury community and educating law enforcement personnel, addressing the funding challenges and establishing partnerships with governmental bodies are crucial steps in this process. Specifically with regard to establishing a supportive program for brain injury survivors, a person-centered approach that focuses on individual needs and employing specific communication strategies tailored to each person is essential for effective interaction. It is essential to aim for a bridge of communication between the law enforcement and brain injury communities to close these gaps and limitations in order to foster better understanding and support for both parties.

Chapter 3: Capstone Experience Protocol for Program Development

Site Description

The Brain Injury Association of Georgia (BIAG) serves as a comprehensive organization and support network for individuals, families, and the community impacted by brain injuries across the state. The home of BIAG is specifically located in the city of Atlanta. An array of services and information tailored towards the diverse needs of brain injury survivors are provided by the staff of the organization. Information such as brain injury education, survivor and caregiver support group opportunities, becoming a donor or sponsor, the organization's mission and vision, and educational resources can be found on the organization's website. Services like educational workshops, counseling for survivors and their families, advocacy efforts, legal aid referrals, and programs of support are provided by highly qualified and trained staff members whose jobs range from Support Group Liaison to Resource Consultant. Each staff member plays a role in empowering each survivor and their families to access the support they require.

BIAG is committed to raising awareness, providing education, and advocating for the rights and lives of brain injury survivors. Through client testimonials and experiences, BIAG has gained a better understanding of the impact a brain injury has on an individual and on the lives of others affected by it. With this understanding, BIAG offers improved services and support for every person that walks through their door. BIAG offers access to articles, books, guides, and videos as forms of resources within their online library. These resources are relevant for brain injury awareness and education, prevention, rehabilitation, and recovery as well as navigating the healthcare system and exploring strategies for enhancing communication and social skills. In essence, the organization of BIAG serves as a beacon of hope and community engagement for

individuals and families impacted by brain injuries within the state of Georgia. BIAG also partners with other similar organizations that exist within the United States such as the Disabled American Veterans, the California Department of Vocational Rehabilitation, the Brain Injury Association of Washington D.C., and the Brain Injury Association of Texas.

Site Mentors

Morgan Barnett and Jane Jackson served as my site mentors and were appointed from BIAG to provide guidance for me throughout the fourteen-week capstone experience so that my project would be completed successfully. Before accepting the position of Site Mentor, both Morgan and Jane were given a contract and a Memorandum of Understanding from Capstone Coordinator to acknowledge the responsibilities of all parties involved in the capstone project experience.

Morgan currently serves as the Executive Director at BIAG and embodies dedication and passion in her role. With a full-time commitment to the organization and the former role she played as the Director of Resource Facilitation, Morgan demonstrated her longstanding commitment to the mission of BIAG. Her professional background is characterized by dedication, commitment, and facilitation to BIAG's mission and vision to make an impact on the lives of those who are affected by brain injuries. Jane served as the former Executive Director at BIAG before retiring the role. Jane's character and dedication to the organization of BIAG has allowed her to continue volunteering her time to helping those in need whom BIAG serves. She has served as the voice of BIAG, as she inaugurated the start of the organization when her husband sustained a traumatic brain injury. Like Morgan, she previously served as the Director of Resource Facilitation. She also served as the Bilingual Resource Facilitator to provide information for Spanish-speaking survivors who wanted connection in their community. She

advocates for caregivers of brain injury survivors as well as for safety laws and public policy changes to be made.

Site Mission

As quoted by the BIAG website, “our mission is to provide hope, help, and support to the citizens of Georgia who have sustained or been affected by brain injury. BIAG is dedicated to increasing access to quality health care and raising awareness and understanding of brain injury through prevention, education, and advocacy. Together with its network affiliates as well as support groups throughout the state of Georgia, BIAG is the Voice of Brain Injury for individuals, their families, and the professionals who serve them” (Brain Injury Association of Georgia, 2023). BIAG’s mission is to provide the highest quality of assistance and encouragement for their clients through supportive programs. BIAG’s Information and Resource Program is directed by a Certified Brain Injury Specialist (CBIS) who provides information, expert education, and customized resources specific to each person’s situations. The Peer Visitor Veterans Program is staffed with volunteers who provide hope, support, empathy, and inspiration for helping survivors and their families navigate the lifelong recovery process. The capstone project complements these programs by providing additional support.

Process for Developing Programs

Through the process of developing the literature review, the purpose of the capstone project came to life as current research was founded to explain the phenomena of why communication barriers exist between law enforcement personnel and brain injury survivors. The current research stated that increased education for law enforcement officers and more accessible support groups for brain injury survivors are key to eradicating communication barriers between

the two parties. After the literature review was completed, a needs assessment was formed for the site mentors at BIAG to gather information for creating a feasible and professional support program for brain injury survivors that is geared towards instilling social confidence in them during everyday interaction with their community. The needs assessment process and the literature review allowed for the pursuit of ideas to be included in both programs. Like the site mentors, other professionals were interviewed to gain insight for the best material to include in the programs. These other professionals consisted of rehabilitation specialists and caregivers of survivors from Rehab and Beyond, a police officer from Walton County Sheriff's Office, a yoga instructor from Laughter Yoga Atlanta, and an art therapist from Individual and Team Therapy Services (ITTS) for Children. Information gained from these stakeholders were obtained through their personal experiences. Stakeholders stated that the surrounding community can volunteer within current support services organizations to become more aware of the nature of brain injuries. Brain injury survivors also stated that most people are not aware or patient with brain injury survivors. A few survivors expressed knowing that they are sometimes slow to speak because they are slow to process things. Consequently, brain injury survivors wish to be given time to speak and not feel rushed by listeners.

After completing the needs assessment with the site mentors and obtaining more accurate information from the other professionals, program development went underway. The capstone purpose statement was established to summarize the goal of the capstone project. Learning objectives were defined in order to meet attainable goals through program development. Program implementation was discussed with site mentors, Faculty Mentor, and Capstone Coordinator. However, the short timing of the fourteen-week capstone experience could not be utilized properly in order to begin and finish program development, implement both programs, and

complete the final capstone paper. An executive decision was made by all parties involved in working through the capstone project to discuss the feasibility of only developing two programs without implementing them. After program development was completed, both programs were given to Morgan Barnett and Jane Jackson as a resource to use in the future.

Chapter 4: Results/Outputs

Program Materials, Format, and Dosage

Program 1: Brain Injury Response for Law Enforcement

The course was designed to provide educational material for law enforcement officers and personnel in order to increase their knowledge and understanding of brain injuries and communication tactics within the field. The course can be hosted in a classroom style room equipped with visual aids for presentations. The ideal number of participants varies but should be manageable for effective engagement and discussion. A group of approximately ten participants would allow for meaningful interaction and exchange of ideas. The course can be delivered in person or virtually. In-person sessions may facilitate more direct interactions and hands-on learning, while virtual sessions may offer flexibility and accessibility. Participants will be provided with PowerPoint presentation material which includes teaching content, program objectives, case studies, visual aids, and time allotted to open-ended discussions. Presenter notes and suggestions and literature review references are indicated by a bold font below the respective slide. Additionally, talking points including course objectives are indicated by an italicized font below the same respective slide. Refer to Appendix 3: Programs for details.

The course was divided into five components and consists of four total hours of material. The first section begins with an introduction consisting of three compelling stories that happened within the last 10 years that were broadcasted in the national news. These stories involve a brain injury survivor whose personality and behaviors were altered, and tragedy was the result. Specifically, each story involved a mass shooting where the survivor was the perpetrator. The purpose of exposing these stories to law

enforcement officers is to bring awareness on the drastic changes that occur in the brain and body when a person sustains a brain injury and to bring awareness to show the lack of support that survivors have and need within the community. After this introduction, the course addresses the importance and reason for the course as well as the connection to the capstone project.

The second section of the course dives into addressing a general overview of the definition, causes, signs, symptoms, and common behaviors of brain injuries. This overview consists of three total slides, geared towards stimulating participant discussion for understanding more about brain injuries and what they look like from their perspectives in the field. The next section addresses two case studies. These case studies are real-life examples that were pulled from personal experiences of police officers in the field. Both case studies present two different scenarios from two different police officers. The scenarios are used to be briefly discussed and to provoke ideas for approaching the situations to enhance discussion-based dialogue and for these ideas to be exchanged among participants. Evidence-based occupational therapy approaches will also be addressed within this section to promote education and increase awareness from a medical standpoint as well as provide suggestions that are not addressed in general law enforcement training or police academy.

The third section addresses the problem associated with the lack of education in law enforcement training and the challenges of providing effective and safe services for brain injury survivors. Accordingly, the evidence found in current research, the literature review, the needs assessment, and the interviews of relevant stakeholders served as educational material to address solutions to the problem. The current research states that

brain injuries resemble similarities with psychiatric disorders and other kinds of mental health conditions. Therefore, the differences are addressed within the course to allow for participants to distinguish the behavioral discrepancies of brain injuries and psychiatric conditions. The final portion of this section includes CT scan imaging of brain injuries compared to CT scan imaging of typical brains. The importance of these images is to instill a visual representation for participants to understand the severity of brain injuries, recognize signs of head trauma and respond appropriately, and enhance empathy while decreasing legal and ethical misunderstandings.

The fourth section addresses specific communication needs and deficits that brain injury survivors face. An illustration of the brain and its functions are shown in this section as well. The purpose of this illustration is to display the different parts of the brain, its corresponding abilities, and the impact an injury has on each part of the brain. For example, the illustration shows that the frontal lobe is responsible for reasoning and behavior. When the frontal lobe is affected by a traumatic or acquired injury, unexpected aggressive episodes and impulsivity may be appear through actions and words.

The fifth and final section expands on the needs assessment but is geared towards the audience of law enforcement officers. A total of twelve questions were developed and address a myriad of topics ranging from current training programs in place to personal experiences of interacting with brain injury survivors. Subsequently, community resources for law enforcement officers are provided in this section for the purpose of establishing partnerships and support in the field.

Program 2: Social Circuit Squad

The program was designed for brain injury survivors to discuss issues and increase confidence with social skills, explore ideas of helping people understand how they communicate, and provide support for how to enhance communication input and output during times of stress. This program can be hosted in a conducive room that allows for participants to be involved in group activities and discussions, preferably with ample space for individuals who need accessible accommodations. The room should be welcoming and inviting to therapeutic activities. The ideal number of participants may vary, but a group size of ten individuals would allow for personalized interaction. This program can be conducted virtually or in person, depending on the preferences and accessibility of the participants. In-person sessions may allow for more intimate engagement, while virtual sessions offer flexibility for those unable to attend in person. Depending on the specific session activity, participants will be provided with art materials such as oil pastels and markers, pre-drawn body images for engagement in those art activities, and course objectives for participant preparation. The program fosters a community outing during the last session where participants have the opportunity to apply their acquired skills in a real-world setting, if participants choose to be involved in person. Presenter notes and suggestions and literature review references are indicated by a bold font below the respective slide. Additionally, talking points including course objectives are indicated by an italicized font below the same respective slide. Refer to Appendix 3: Programs for details.

Equivalent to the *Brain Injury Response for Law Enforcement* course, *Social Circuit Squad* consists of four total session hours, with each session designed to last one hour. The program spans four different days, with one session scheduled once every third

week. Each session is represented by a title and corresponds with the specific activity planned for that session. For example, Session One, Introduction Day, will be scheduled during Week 3 of the fourteen-week capstone experience and will endure for one hour. Session Two, Art Day, will be scheduled during Week 6 and will endure for one hour. Session Three, Support Group Day, will be scheduled during Week 9, while Session Four, Community Day, will be scheduled during Week 12. Each session is independent, but each one allows participants to build their skills and knowledge from the previous session. Unlike the *Brain Injury Response for Law Enforcement* course, Social Circuit Squad essentially fosters an atmosphere akin to a support group in a professional setting. The focus is less on didactic instruction and discourse and more on experiential learning through activities and fostering connections with peers.

Session One, titled Introduction Day, addresses an overview of the capstone project as a whole. A summary of the literature review, insight gathered from site mentors and other stakeholders, and the process and purpose of both programs is provided during this session. The participant-centered needs assessment is implemented after the capstone overview and consists of twelve total questions. These questions range from discussing feelings of frustration during social interaction and coping with hardship to examining personal goals for program participation. The needs assessment was designed to be conducted for the purpose of gathering valuable information that will inform further development and implementation to ensure program sustainability. Overall, this session serves as a foundational step for the remainder of the program, as it outlines the program's objectives and expected outcomes.

Session Two, titled Art Day, builds upon Session One in the sense of providing a therapeutic experience for survivors to utilize for processing trauma and alleviating anxiety. This session was designed to bring forth an occupational therapy approach through engaging in creative activities via the domain of leisure and social participation. The objective of this session was designed to strategically offer a participant-tailored intervention for navigating challenging social situations and to equip survivors with tools for emotional regulation. Additionally, this session was designed to provide participants with an outlet to formulate a sense of placidity and homeostasis amidst potential stressors through connection with peers and artistic expression. The overall purpose of this session was developed to allow participants to apply this occupational activity within coping scenarios and to empower participating survivors to foster mental and physical well-being.

The specific art activity within Session Two consists of creating a body scan. Composing a body scan is a common technique used within art therapy to express emotions and bodily sensations and experiences. It allows the individual to utilize mindfulness and mental awareness of these experiences and sensations in order to deepen self-awareness to promote emotional healing. The session begins with the individual reclining on a body-sized sheet of paper, while another person traces the contours of their body using a pencil. In each section of the body, a corresponding illustration can be drawn or colored to depict the emotions and sensations experienced within that specific anatomical region. Examples may include drawing a fiery red circle at the head to represent feelings of anger and frustration or illustrating the disparities between pre- and post-injury to contrast the unaffected and affected segments of the body. Art materials

will be provided during implementation. Materials include oil pastel styluses, markers, watercolor tools, and clay. Research has shown that the use of clay in art therapy works well in bilateral activities and is beneficial for processing trauma due to the satisfaction of heavy pressing of hands and improvement in self-confidence (Glang et al., 2015).

Research further shows the impact of watercolor painting, particularly in facilitating the sensation of experiencing color diffusion across the canvas (Glang et al., 2015). The use of markers has been shown to allow the individual to cultivate contained and structured expression (Glang et al., 2015).

Session Three, titled Support Group Day, was designed to promote open-ended and meaningful discussions regarding participants experiences with communication and social obstacles. This session provides a safe environment for survivors to discuss their personal challenges and triumphs through connections and potential shared experiences as well as promoting encouragement and empathy for one another. This session allows participants to individually overcome communication barriers and learn to begin navigating social interactions post-injury. The overall objective for this session is for participants to contribute a piece of their lives to foster community and fellowship with peers. After the discussion, survivors will participate in a breathing activity together. This breathing activity is called Box Breathing, which is aimed at reducing stress and engages participants in structured inhaling and exhaling deeply for a count of four seconds. The participants will inhale through their nose for four seconds, hold their breath for four seconds, and exhale completely through their mouth for four seconds. The participants are instructed to pause for an additional four seconds before repeating another cycle of box breathing. When practicing box breathing with peers, it offers the benefits of social

support through a sense of fellowship and belonging. It motivates and encourages participants to sustaining the desire of accountability to continue practicing the technique in different environments, both familiar and unfamiliar.

A second activity that was developed for implementation within the Support Group Day includes a Laughter Yoga session. The concept of laughter yoga is based on scientific knowledge that shows that laughter generates physiological and psychological health benefits when combined with physical exercise. The purpose of this activity is to use intentional laughter as that form of physical exercise in a group setting to enhance health and well-being as well as allow participants to be in the social presence of others.

Session Four, titled Community Day, was developed to serve as a platform for practical application and integration of the skills, insights, and knowledge acquired throughout the previous three sessions. Since Session Four is the final day of program implementation, it is aimed to promote survivors to foster and hone the social interaction experience into improved skills. Community Day was designed to offer a lunch outing as the program activity. The participants, first, have the choice to vote between two restaurants. The majority vote is picked, and all participants will make a trip to that restaurant. This outing presents an opportunity for participants to enjoy a pleasant experience with peers and to apply the social skills they have acquired throughout the past fourteen weeks. This session was designed to instill the confidence and proficiency in social interaction through conversing with both familiar and unfamiliar faces and encourages participants to approach social situations with enthusiasm and an open mind for furthering the development of skills in different environments.

Intended Participants

The *Brain Injury Response for Law Enforcement* course was specifically developed to cater to the educational needs of law enforcement officers and related personnel such as sheriff deputies and correctional officers, state troopers, criminal investigators, and security officers and campus police. This course was intended to take participants through a comprehensive curriculum in order to provide valuable insight into the complexities of brain injuries. Due to the lack of education provision in police academy and daily training, the curriculum was designed to equip participants with elaborate information to effectively support positive interactions with brain injury survivors in the field. The course focuses on discussing and applying practical skills that law enforcement providers can utilize to navigate interactions in a compassionate and informed manner. The *Social Circuit Squad* program was developed for brain injury survivors, specifically for TBI and ABI survivors. The primary goal through participation is to instill hope and feelings of support through meaningful social interactions. This program was established to empower survivors through friendships, shared experiences, and community engagement to enhance overall quality of life. Caregivers are also recommended to join but are not required.

Training needed for Implementation

To effectively implement the programs for both law enforcement providers and brain injury survivors, separately, it's imperative to select a future capstone student within Georgia State University's occupational therapy program who is interested and willing to continue sustaining this capstone project. Other future implementers can include faculty members of BIAG as well as law enforcement providers themselves. The second objective is to address the training needs for future implementers as well as aiding in the identification of site mentors.

Training should begin with establishing an overview of the purpose of the capstone project. This will include the importance of the purpose statement, the process of the literature review, the needs assessment, development of programs, understanding the current research associated with the project topics, and the need to implement the programs to decrease communication barriers. Training should encompass the discussion of topics related to occupational therapy strategies for decreasing communication barriers between law enforcement providers and brain injury survivors. Future implementers should become familiar with de-escalation tips and conflict resolutions tailored to the needs of both brain injury survivors and law enforcement personnel. Site mentors have a crucial role in aiding the student to complete project implementation. Training should focus on assisting site mentors with coordinating participant recruitment. Mentors should be trained in recruitment strategies if necessary and should offer support for potential participants to help them be involved and engage in the programs.

Summary

Both programs cater to specific audiences, with caregivers also encouraged to participate in the *Social Circuit Squad* program. Training future capstone students to sustain this project involves understanding program objectives and goals, current data associated with existing research and gaps in the literature, and participant recruitment strategies. Site mentors play a vital role in guiding the capstone student through program adjustment and implementation and providing support throughout the process of capstone project completion. By addressing the needs of both the target audiences, the capstone site, and the student's project objectives, project sustainability can be accomplished through fostering improved understanding and support of communication between law enforcement personnel and brain injury survivors.

Chapter 5: Discussion and Impact

Importance of Program Development

The development of both programs for both audiences is crucial in resolving the education gaps in law enforcement training. *Brain Injury Response for Law Enforcement* is necessary for improving the understanding of common communication deficits associated with brain injuries. By developing this course tailored to the needs of law enforcement officers, this capstone project was completed in order to bridge those gaps in law enforcement training, ultimately bridging the gaps found within the literature. *Brain Injury Response to Law Enforcement* was developed for the purpose of equipping police officers and other law enforcement personnel with the knowledge, resources, tools, and skills to interact effectively and compassionately with individuals who have experienced a brain injury as well as equipping them with enhanced awareness and competence during interaction in the field. Research states the significance of educating the law enforcement community about mental health conditions, highlighting the roles of medical professionals as educators (Loucks, 2013).

Social Circuit Squad was developed as an essential program for increasing support for brain injury survivors. The literature states a lack of resources and aid in the community for those affected by brain injuries (Linden et al., 2020). Social Circuit Squad is tailored specifically to increase social skill confidence for survivors as well as alleviate communication barriers during interaction with law enforcement providers by addressing and practicing emotional regulation, executive function skills, impulsivity reduction, communication abilities, and stress relief techniques. This program was designed to empower survivors to navigate interactions with specifically law enforcement as well as the greater community. Linden et al., 2020, emphasizes the impact of brain injuries on social competence and the lack of interventions for social deficits

throughout the criminal justice field. Both programs were designed for the purpose of fostering self-efficacy and improvements in communication for both audiences.

Both programs address and reduces the misconceptions and challenges surrounding communication for both target audiences. O'Rourke et al. (2018, 2020) acknowledges the value of alleviating these misconceptions about brain injuries among probation services and prison populations and emphasizes the need for education and awareness initiatives. Both programs contribute to educational and awareness efforts and promote self-initiation in understanding the importance of improving communication efforts and skills for the benefit of improving social relationships. The development of these programs in the context of service provision offers recommendations for more efficient safety and supports for brain injury survivors, as stated by Glang et al. (2015). Both programs serve as a catalyst for promoting education for fostering effective communication to establish better outcomes for both law enforcement officers and brain injury survivors. These programs are geared towards encouraging community engagement and inclusivity by means of support and understanding.

Impacts of Intended Implementation

For the *Brain Injury Response for Law Enforcement* participants, significant impacts are intended to enhance their interactions in the field with brain injury survivors. The goal of participation is for law enforcement personnel to increase their understanding of common communication deficits and needs associated with brain injuries. Consequently, participants can become more advanced and well-rounded in their field training, responding safely and effectively to individuals exhibiting such deficits. Increased awareness in continued education can improve outcomes and skills during interaction and allows for law enforcement officers to become more adept to recognizing those needs and deficits. O'Rourke et al. (2018) stresses the

lack of education and training in law enforcement precincts, indicating a clear need for this type of education for this population.

Participation in this course can contribute to reducing rates of recidivism among brain injury survivors who come in contact with the criminal justice system. Ray and Richardson (2017) and Linden et al. (2020) address the correlation between brain injury acquisition and recurring incarceration. By equipping law enforcement officers and others who hold valuable positions within the criminal justice system with reliable and authentic knowledge, the tools necessary for optimizing skills, and resources for promoting reintegration into society, reincarceration problems in prison populations can be reduced for brain injury survivors who need proper support and rehabilitation. *Brain Injury Response for Law Enforcement* is intended to serve as an intervention in breaking the cycle associated with the unaddressed communication barriers that exist between law enforcement personnel and brain injury survivors.

Participants who choose to be involved in the *Social Circuit Squad* program can be exposed to the impact of peer-support and the opportunity to develop and enhance their communication abilities, which are often impaired following a brain injury. Rietdijk et al. (2021) emphasizes the positive effects of functional social communication skills training for individuals with a traumatic or acquired brain injury. Through the strategically designed session activities within *Social Circuit Squad*, participants can learn self-initiated strategies to navigate social interactions and build social confidence in community engagement. Richards et al. (2021) acknowledges the importance of biweekly participation in order to maintain the acquired social skills.

The capstone project has sought to develop these two programs to coincide and be connected with one another. By developing *Brain Injury Response for Law Enforcement*, the

course is aimed to provide law enforcement participants with an understanding of the communication challenges that brain injury survivors face and focuses on ways to decrease those challenges from a law enforcement standpoint. Additionally, *Social Circuit Squad* is aimed to provide participants with the production of *Brain Injury Response for Law Enforcement* to empower survivors with confidence in improving social and communication skills. This is designed to be pivotal, due to the necessity of both programs as stated by the current research.

Program Development Reflections

Program development was successful partly because of the information gathered from the needs assessment as well as speaking with other relevant and important stakeholders. Through informal interviews with brain injury survivors, their caregivers, and rehabilitation specialists, a recurring theme emerged from these conversations. The need for the non-survivor community to have increased patience and understanding was a common, interpreted solution to potentially alleviating communication deficits and challenges that often arise post-brain injury. Brain injury survivors expressed a desire for people to give them time to represent themselves, acknowledging that their communication and cognitive abilities may be slower due to their injury. Survivors also shared frustrations about how their families and friends perceive them post-injury, wishing for recognition of their continued success and adjustment to a new way of living. These conversations highlighted the importance of raising awareness about the challenges faced by brain injury survivors and the need for greater understanding, empathy, and support from the rest of society.

Insights from other stakeholders provided valuable perspectives on other struggles faced by survivors. Rehab and Beyond was one of the sites in which stakeholders gave valuable insight. This rehabilitation facility focuses on providing services for brain injury survivors to

help maximize their quality of life. Their approach includes addressing physical, emotional, and social aspects of recovery through individualized treatment plans. In relation to the capstone project program development, Rehab and Beyond served as a reference point and place of resource for several reasons. Both Rehab and Beyond and the capstone project contribute to raising awareness in the community and supporting brain injury survivors in their recovery journey. Therefore, both Rehab and Beyond and the capstone project promote social inclusion and an extension of rehabilitation for brain injury survivors. The capstone project complements the supportive environment and services of Rehab and Beyond by allowing the practice of social interaction and communication skills as an approach to rehabilitation. The owner of Rehab and Beyond, Coach Stan, expressed the importance of the need for ongoing efforts to foster increased understanding, patience, and inclusivity for brain injury survivors within the community. Coach Stan suggested the concept of having survivors own an “identity tag” stating their acquisition of brain injury for the purpose of law enforcement officers to have the opportunity to observe different behaviors associated with brain injuries and be able to move forward with safe and effective communication. Coach Stan suggested that law enforcement officers volunteer at places like Rehab and Beyond to gain a first-hand experience of what living with a brain injury entails and to begin planting the seed for the sustainability plan. This allows both audiences to become more acquainted with one another in a safe environment and foster increased understanding of each other’s roles in the community. It is apparent that there is an immediate need for ongoing efforts from both parties to cultivate patience and awareness in order to successfully interact with one another within the community.

Summary

The development of both programs is essential for addressing the gaps that exist within literature as well as the needs that were discovered through the needs assessment. Both programs are vital for addressing the education gaps and support needs within both the law enforcement and brain injury survivor communities. The intended impact for *Brain Injury Response for Law Enforcement* aims to equip officers with the knowledge, resources, and skills necessary to effectively interact with brain injury survivors. Meanwhile, *Social Circuit Squad* aims to empower survivors to confidently increase their social and communication skills and alleviate anxiety-inducing stress related to social interactions, particularly with law enforcement providers. Both programs are informed and dedicated by research that has emphasized the lack of education, resources, and intervention methods for both brain injury survivors and law enforcement officers. The connection between these two programs mutually reinforces each other's objectives. The capstone project, as a whole, bridges the gaps in law enforcement training and support for brain injury survivors. It holds the promise for fostering effective communication outcomes for both audiences through valid research, awareness, and community engagement.

Participation in *Brain Injury Response for Law Enforcement* enhances knowledge and understanding for appropriate response to communication and social deficits associated with brain injuries with the hope of reducing recidivism rates among brain injury survivors who come in contact with the criminal justice system. Participation in *Social Circuit Squad* strengthens peer support and opportunities for enhancing communication abilities impaired by brain injuries. Participants in both programs can learn self-initiated strategies to navigate social interactions and improve the lack of interventions for social deficits within the field of criminal justice.

Limitations

The process of program development throughout the capstone experience forfeited some inevitable limitations. Despite the number of limitations that occurred or were noticed, the limitations can be reduced in the future if the foundational work laid out in program development is refined and geared towards promoting implementation within a timely manner. One of the most significant limitations was the short duration of the fourteen-week capstone experience. Therefore, implementation of both programs could not be executed and hindering discussion of implementation results. Additionally, pursuing program development without program implementation had its own limitations. During the capstone process, the absence of a physical site posed challenges in maintaining motivation to work outside of a home environment. Therefore, it felt imperative to venture beyond the confines of the home environment to engage with potential stakeholders and prospective participants in order to acquire the necessary information for program development. Funding is a major barrier with pursuing program implementation as well as a limited interest coming from organizations to host themselves as a capstone project site for program implementation.

Specifically with Program 1, *Brain Injury Response for Law Enforcement*, the course material covered extensive and comprehensive information related to brain injury education, real-life scenarios used for case studies, occupational therapy approaches to intervention, and general ways to open supportive and safe communication pathways. However, the limitation associated with this includes the lack of opportunity for real-world application within the course due to the absence of program implementation. Consequently, there is a lack of feedback from participants to provide information on their views of the course's relevance, practicality, and clarity. Similarly, Program 2, *Social Circuit Squad*, faced a number of limitations due to the

absence of implementation. Development for this program took longer than program development for *Brain Injury Response for Law Enforcement*, since the site mentors' expertise was related to helping with the development of the program for brain injury survivors. While the sessions in *Social Circuit Squad* were deliberately crafted and well-established to provide the right kind of social support for brain injury survivors, the absence of program implementation prevented the evaluation of relevance and effectiveness in improving participants' social confidence and communication abilities. Without that in-person interaction, feedback from participants cannot be given in order to accurately measure the impact of the program.

With regard to intended participation for the *Brain Injury Response for Law Enforcement* course, limitations include the potential challenge of ensuring commitment from law enforcement officers and personnel, given their demanding and inconsistent schedules. Additionally, the lack of education provision and daily training may inhibit law enforcement officers to engage well and be motivated to utilize the resources given throughout the course. Consequently, there may be skepticism or resistance among participants within this course regarding the importance of course content, which may hinder their willingness to sustain participation throughout the entire duration of the course.

With regard to intended participation for the *Social Circuit Squad* program, limitations include the effectiveness of achieving the goals of instilling sustained hope and support for brain injury survivors. The course is currently only designed to be implemented for four total hours, which may hinder the continued support for survivors during times when the course is not being implemented. Therefore, there may be challenges affirming consistent participation to overcome social barriers to interaction independently. While the program aims to empower survivors through meaningful social interactions, friendships, and community engagement, there may be

challenges with voluntary participation due to the potential limitation of caregivers not being actively involved or supportive.

Furthermore, the success and sustainability of both programs depends upon the availability and amount of time to adequately trained professionals to enact implementation and facilitate participant engagement. Being able to identify and properly train a future capstone student with the interest and dedication in this project is necessary for securing sustainability and guaranteeing the effectiveness of both programs. Additionally, limitations in finding site mentor candidates with the qualified experience and expertise may be challenging.

There are other limitations associated with program development and implementation. Tailoring both programs to the needs of the respective participants can show gaps in understanding due to the complexity of brain injuries and the diverse needs of both law enforcement officers and brain injury survivors. The success of program implementation solely relies on the willingness of participants to engage and be open to having attitudes, views, and perceptions change. Another limitation associated with sustaining these programs include keeping the momentum of program implementation long term. Both programs aim to reduce misconceptions and communication barriers between the two audiences, but there is a possibility that stigma and bias may arise in both sets of participants and may persist despite education and awareness efforts. Other limitations with regard to sustainability may be impacted by external factors like style of student and site mentor leadership, organizational ideas, and the number of stakeholders involved in the project.

Sustainability Plan/Implementation Plan

The sustainability plan is to ensure the continued success and impact of the purpose of the capstone project. The overall goal is to not only establish communication barriers between law enforcement providers and brain injury survivors but to establish lasting partnerships and advocate for brain injury survivors within the community. Therefore, the sustainability plan focuses on seven items necessary for future implementation.

1. Encouragement of a future capstone student to establish ongoing partnerships with potential site mentors and key stakeholders to aid in project implementation.
2. Utilization and modifications of the needs assessment for the future capstone student or other implementers to use for site mentors, other stakeholders, and potential participants as a foundational resource for understanding the challenges of both law enforcement officers and brain injury survivors. The needs assessment will serve as a reference for planning and implementing the capstone project.
3. Provide completed capstone project for current site mentors, Faculty Mentor, and future implementers to use for sustaining program execution.
4. Encourage Faculty Mentor to remain active as a project stakeholder for future Georgia State Occupational Therapy capstone students and guide them to ensure the capstone project's continuity and success and support a future capstone student implementer in fostering further collaboration and communication with key stakeholders for effective implementation.
5. Provide access to finished project manuscript and programs to future implementers and Faculty Mentor to serve as a resource for understanding the project's goals, methodologies, and outcomes.

6. Highlight the positive impact of program development to future implementers and Faculty Mentor in order to share the ongoing needs for program implementation, advocacy of brain injury survivors, and education of law enforcement providers.
7. Encourage future implementers to develop a public awareness product, such as a t-shirt for participants, as a means to inform the community about the capstone project and general awareness of brain injuries.
8. Encourage future implementers to assess the programs via The Common Misconceptions about TBI questionnaire and The Law Enforcement Survey. These outcome measures display the lack of education in the law enforcement community that exists regarding brain injury awareness and supports the need for program implementation.

Conclusion

The challenges faced by brain injury survivors with communication deficits often manifest in behaviors like aggression, emotional dysregulation, and confusion. These challenges are often accompanied with external factors within society that hinder emotional regulation such as a lack of brain injury awareness and understanding, specifically concerning interactions with law enforcement. The capstone project sought to address these issues through program development for both law enforcement officers and brain injury survivors. The literature review, needs assessment, and engagement with stakeholders provided valuable insights into establishing and exceeding the needs of the site and participants. In summation, the capstone project emphasized the importance of fostering increased understanding, empathy, and support for both law enforcement personnel and brain injury survivors, and it highlights the need for ongoing efforts from both participating audiences to continue cultivating patience and understanding with each other during interactions. By implementing the developed programs, the capstone project can bridge the communication gaps and barriers between the two parties and promote a more inclusive and empathetic community.

Implications for Future Occupational Therapy Work

Future occupational therapy work would include working towards making continued efforts to close the communication barriers between law enforcement officers and brain injury survivors. This may look like designing and delivering occupation-based and client-based interventions tailored towards the unique needs of brain injury survivors. Specifically, this may include incorporating sensory integration techniques into therapy like weighted vests and tactile stimulation to promote optimal arousal levels and enhance social engagement. Other ways to move forward with future occupational therapy work includes providing training sessions on

communication strategies, emotional regulation techniques, and conflict resolution skills for both groups. Collaborating with community organizations, other occupational therapists, and advocacy groups to raise awareness about brain injuries and promote understanding and acceptance of individuals living with these conditions is vital for creating a more inclusive environment for all members of society.

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Appendix 1: Learning Objectives

Learning objectives (LTGs)	Short-term objectives (STGs)	Learning activities	Outcome measures	Timeline for completion
<p>1. The student will develop a social skills support group program for brain injury survivors to decrease communication barriers during daily encounter with the community, reduce heightened feelings of aggression, and enhance emotional regulation by the end of the 14-week capstone experience.</p>	<p>1A. The student will develop and complete a needs assessment for BIAG stakeholders before designing the social skills support group program sessions. 1B. The student will develop a needs assessment for brain injury survivor participants to address what their personal social goals are for the program. 1C. The student will design four one-hour social skills training and support group sessions to understand the communication needs of brain injury survivors and how to advocate for awareness of these needs in the local community.</p>	<p>1a. The student will design discussions groups and occupational therapy activities during the social skills support group sessions with BIAG participants to prompt and support social interaction. 1b. The student will improve understanding of the current support groups and existing resources used by BIAG that help brain injury survivors stay connected within the community. 1c. The student will design emotional regulation activities with self-grounding techniques within the program sessions for participants to use during phases of overwhelming</p>	<p>i. The student will complete a literature review to obtain accurate information for establishing the social skills support group program thoroughly.</p>	<p>April 15, 2024.</p>

		emotions and sensations.		
2. The student will provide an occupational therapy perspective through course development for law enforcement providers regarding advocacy for the brain injury population in order to establish reduction of communication barriers between the two parties during encounter.	2A. The student will develop an educational course for law enforcement providers to address common communication deficits for brain injury survivors. 2B. The student will develop an educational course for law enforcement providers to address common personality changes that arise after a brain injury occurs. 2C. The student will provide community resources from BIAG for the law enforcement course to allow for course participants to better understand communication needs and deficits of brain injury survivors.	2a. The student will provide an overview of information regarding brain injuries and the common causes, signs, symptoms, and behaviors of brain injuries. 2b. The student will provide case studies that discuss real-life scenarios of encounters between brain injury survivors and law enforcement personnel to provide an opportunity for discussion on how to approach each situation properly and carefully. 2c. The student will provide a section within the law enforcement course that discusses the	i. The student will complete a literature review to obtain accurate information for establishing the law enforcement course thoroughly.	April 15, 2024.

		<p>differences between brain injury behaviors and behaviors of psychiatric conditions.</p> <p>2d. The student will develop a needs assessment for course participants to understand what their personal learning goals are for the course.</p>		
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Appendix 2: Supervision Plan

Site: Brain Injury Association of Georgia (BIAG)

	Student: Colleen Johnson	Site Mentors: Morgan Barnett and Jane Jackson	Faculty Mentor: Dr. Rowe
Week #	Responsibilities	Responsibilities	Responsibilities
1	<ul style="list-style-type: none"> • Demonstrate self-directed preparation with organizing materials and ideas for the <i>Social Circuit Squad</i> Program • Schedule virtual meeting with Capstone Coordinator and Faculty Mentor to discuss the program materials and delivery method via implementation and sustainability plan • Inquire about Site Mentors' availability to schedule meetings and check-ins • Demonstrate self-directed preparation with <i>Brain Injury Response for Law Enforcement</i> course design via increasing literature review for gaining the most accurate information for course content • Schedule virtual meeting with Capstone Coordinator to discuss ideas for <i>Brain Injury Response for Law Enforcement</i> course materials • Schedule virtual meeting with Faculty Mentor to discuss student's plan for course design 	<ul style="list-style-type: none"> • Assess availability to meet with student, Faculty Mentor, and Capstone Coordinator to discuss project overview, Program materials and deliverance method via implementation and sustainability plan • Attend virtual meeting with student and Capstone Coordinator to gain insight on student's capstone project and discuss how the student's ideas can meet the needs of the site 	<ul style="list-style-type: none"> • Attend student-scheduled virtual meeting to review and provide feedback for revised "Capstone Supervision Plan" for the <i>Social Circuit Squad</i> Program design and implementation • Provide ethical considerations to ensure student's application of ethical, occupational therapy guidelines when working with brain injury survivor participants • Attend student-scheduled virtual meeting to review and provide feedback for revised "Capstone Supervision Plan" for the <i>Brain Injury Response for Law Enforcement</i> course design

2	<ul style="list-style-type: none"> • Schedule virtual meeting with Site Mentors to discuss the learning objectives for the <i>Social Circuit Squad</i> Program • Assess participant-related goals and needs assessment with Site Mentor • Schedule virtual meeting with Faculty Mentor and Site Mentors to inquire about potential resources for establishing a participant-related needs assessment • Submit IRB application 	<ul style="list-style-type: none"> • Provide potential resources for participant-related needs assessment for Program content during virtual meeting • Provide feedback and answers for the needs assessment questions and discuss ideas for Program plans with student 	<ul style="list-style-type: none"> • Attend virtual meeting with student to provide feedback regarding the flow of the plan for the capstone experience • Attend virtual meeting to encourage and provide student with potential resources for completing a needs assessment with brain injury survivors
3	<ul style="list-style-type: none"> • Continue working on Course and Program development • Continue working on establishing formal literature review for the final capstone paper • Schedule virtual meeting with Site Mentors to discuss updated work for Program plans • Ensure IRB application looks correct before second submission. 	<ul style="list-style-type: none"> • Continue to provide support for student through capstone experience • Provide feedback to student regarding current Program plans and feasibility of plan via virtual meeting 	<ul style="list-style-type: none"> • Continue to provide support for student regarding the flow of the Program and Course design • Provide feedback to student regarding IRB application so that second submission can be sent correctly
4	<ul style="list-style-type: none"> • Demonstrate self-directed preparation with organizing materials and ideas for the <i>Social Circuit Squad</i> Program • Schedule virtual meeting with Site Mentors to discuss the Program materials, flow of development, and complete first monthly check-in together • Meet with Art Therapist at ITTS to gain insight and ideas about the positivity and benefits 	<ul style="list-style-type: none"> • Attend virtual meeting with student to discuss the program materials and development method, and complete first monthly check-in together with student 	<ul style="list-style-type: none"> • Continue to provide support for student regarding the flow of the Program and Course design • Attend virtual meeting with student to provide constructive feedback about the format of the Capstone Final Paper

	<p>of art therapy and to include this for Program development</p>		
5	<ul style="list-style-type: none"> • Continue working on Program and Course development • Continue formalizing final capstone paper • Schedule virtual meeting with Site Mentors to discuss week updates with Program development and discussions with Art Therapist at ITTS 	<ul style="list-style-type: none"> • Attend virtual meeting with student to discuss updates with Program development and provide feedback regarding the flow and feasibility of the Program 	<ul style="list-style-type: none"> • Continue to provide support for student regarding the flow of the Program and Course design
6	<ul style="list-style-type: none"> • Continue working on Program and Course development • Continue formalizing final capstone paper, specifically with Table of Contents and Summary Pages • Schedule virtual meeting with Site Mentors to discuss week updates with Program development and discussions with Art Therapist at ITTS • Schedule a morning at Rehab and Beyond to gain some insight from brain injury survivors to learn about their personal experiences with communication needs and deficits and understand how the general community can better support their needs in their environment 	<ul style="list-style-type: none"> • Attend virtual meeting with student to discuss updates with Program development and provide feedback regarding the flow and feasibility of the Program 	<ul style="list-style-type: none"> • Continue to provide support for student regarding the flow of the Program and Course design
7	<ul style="list-style-type: none"> • Continue working on final capstone paper, specifically on Needs Assessment (chapter 2) and re-tweak summary pages 	<ul style="list-style-type: none"> • Attend virtual meeting with student to discuss updates with Program development and discuss 	<ul style="list-style-type: none"> • Continue to provide support for student regarding the flow of the Program and Course design

	<ul style="list-style-type: none"> • Schedule virtual meeting with Faculty Mentor to discuss midterm progress • Schedule virtual meeting with Site Mentors to discuss midterm progress and overall weekly update with Program development • Continue making progress on Program and Course development 	<p>the midterm evaluation with the student</p>	<ul style="list-style-type: none"> • Attend virtual meeting with student to discuss midterm updates and provide guidance for finishing the capstone project strong
8	<ul style="list-style-type: none"> • Continue working on final capstone paper, specifically on Needs Assessment (chapter 2) and re-tweak summary pages • Schedule virtual meeting with Site Mentors to discuss weekly capstone project update and overall Program development • Continue making progress on Program and Course development 	<ul style="list-style-type: none"> • Attend virtual meeting with student to discuss updates with Program development and final paper progress 	<ul style="list-style-type: none"> • Continue to provide support for student regarding the progress of the Program and Course design as well as progress with final paper
9	<ul style="list-style-type: none"> • Schedule virtual meeting with Site Mentors to discuss weekly capstone project update and overall Program development • Finalize Results and Output section of the final capstone paper (Chapter 4) • Make progress on Discussion and Impact section of the final capstone paper (Chapter 5) • Continue making progress on Program development with information gathered from Rehab and Beyond • Finish program development for <i>Brain Injury Response for</i> 	<ul style="list-style-type: none"> • Attend virtual meeting with student to discuss updates with Program development and give feedback on finished program development for <i>Brain Injury Response for Law Enforcement</i> 	<ul style="list-style-type: none"> • Continue to provide support for student regarding the progress of the Program and Course design as well as progress with final paper

	<p>Law Enforcement and present to Site Mentors</p> <ul style="list-style-type: none"> • Gain insight from Coach Stan about his personal experiences with his knowledge on brain injuries 		
10	<ul style="list-style-type: none"> • Schedule virtual meeting with Site Mentors to discuss weekly capstone project update, overall Program development, and progress on final paper • Finalize Discussion portion of the final capstone paper • Peer review edits for fellow students under Dr. Rowe's group • Begin to finalize Program development for <i>Social Circuit Squad</i> • Work on Limitations and Sustainability Plan for final paper 	<ul style="list-style-type: none"> • Attend virtual meeting with student to discuss updates with Program development 	<ul style="list-style-type: none"> • Continue to provide support for student regarding the progress of the Program and Course design as well as progress with final paper
11	<ul style="list-style-type: none"> • Schedule virtual meeting with Site Mentors to discuss weekly capstone project update, overall Program development, and progress on final paper • Fill out and receive monthly check-in with site mentors • Make changes based on peer-reviewed paper • Schedule an attend meeting with a stakeholder in the community to gain more insight from their perspectives in order to improve accuracy of Program 	<ul style="list-style-type: none"> • Attend virtual meeting with student to discuss updates with Program development 	<ul style="list-style-type: none"> • Continue to provide support for student regarding the progress of the Program and Course design as well as progress with final paper

	<ul style="list-style-type: none"> • Weekly meeting with site mentors • Read and give feedback on classmate's final paper draft 		
12	<ul style="list-style-type: none"> • Schedule virtual meeting with Site Mentors to discuss weekly capstone project update, overall Program development, and progress on final paper • Finish final capstone paper/manuscript • Begin presentation slides for final capstone presentation 	<ul style="list-style-type: none"> • Attend student-scheduled virtual meeting to discuss finished product of Program development 	<ul style="list-style-type: none"> • Provide feedback for student regarding finished product of both Program and Course development
13	<ul style="list-style-type: none"> • Schedule virtual meeting with Site Mentors to present the final product of Program development for Social Circuit Squad • Schedule virtual meeting with Faculty Mentor to discuss final stages of capstone project • Finish final capstone paper before handing it to Faculty Mentor for final review before submission • Begin creating final capstone presentation • Make edits to student-reviewed paper 	<ul style="list-style-type: none"> • Attend student-scheduled virtual meeting to discuss finished product of Program development 	<ul style="list-style-type: none"> • Provide feedback for student through virtual meeting regarding finished product of both Program and Course development
14	<ul style="list-style-type: none"> • Schedule virtual meeting with Site Mentors to discuss final evaluation and discuss presentation attendance for final capstone presentation • Finish final capstone presentation slides 	<ul style="list-style-type: none"> • Attend student-scheduled virtual meeting to final evaluation and attendance for capstone presentation 	<ul style="list-style-type: none"> • Provide feedback for student regarding final capstone paper

	<ul style="list-style-type: none">• Make final paper edits from Faculty Mentor• Submit final capstone work		
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Appendix 3: Programs

Social Circuit Squad

Social Circuit Squad

Developed by: Colleen Johnson



Welcome to Social Circuit Squad! This is meant to be a supportive community tailored for you if you are seeking to enhance your social skills and confidence and to be heard! I am thrilled to embark on this journey with you where we will navigate social interactions together and foster meaningful connections in a safe and encouraging environment.

At Social Circuit Squad, we understand the unique challenges that you face and are committed to providing personalized support to help you thrive in social settings. Whether you are looking to build your communication skills, navigate social situations with ease, or simply connect with others who understand your journey, Social Circuit Squad is here to empower you every step of the way.

We will engage in activities, discussions, and mutual support. This program aims to equip you with the tools and confidence needed to navigate the social landscape with grace and resilience. I can't wait to see what a transformative journey we have together where each participant is celebrated and supported. We will unlock new possibilities, cultivate meaningful relationships with each other and the community, and work towards attaining greater social confidence and fulfillment. Welcome! I'm so glad you are here!

Feel free to change the name of this program or make any other changes! You will, however, see the reason for the name on slide 4, but please make any changes necessary or tailored to your style of teaching/leading!

Program Overview

- 4 total days!
- What is the purpose of this program?

This Program consists of 4 total days! Every Session day will hold a new theme and activity associated with that theme! The 4 themes of the Program are: Intro Day, Art Day, Support Group Day, and Community Day.

What is the purpose of this program?

- *The purpose of this Program is to allow for you guys to feel supported in your everyday social lives!*
- *Throughout the Program, we will get to know one another on a level of connectedness, have discussion on issues with social skills you may be having, understand what your needs are regarding feeling better socially supported in the community, and sharing ideas about how to help people understand what your communication needs and deficits are.*
- *This Program aims to provide support for you in how to enhance communication input and output during every-day social interaction and during times of stress.*

Welcome to Intro Day! Here, I will address the overall program and what you can expect out of it. First, I'll address my capstone project and the purpose of this program and then I will ask you of your expectations and what you hope to gain from this program!

Intro Day!

- Capstone Project

I am developing a project for school to promote education about brain injuries and the changes in communication input and output that brain injury survivors experience. One of the most interesting things I have found throughout my research is the heightened potential of

incarceration once a person sustains a brain injury (Ferguson et al., 2012). So many things change and are altered in a person once a brain injury occurs (Colantonio et al., 2014). Personality changes, emotional regulation issues form, social and communication abilities are altered, and aggressive behavior is common due to frustration of not being understood (Fishbein et al., 2016). The other thing that I have found throughout my research is the lack of education that law enforcement receive regarding brain injuries, these common changes that happen, and how to handle escalating situations when encountering someone with a brain injury in the field (Loucks, 2013).

The purpose of this capstone project is to develop an educational course for law enforcement providers to address the need for understanding common communication deficits associated with brain injuries. Additionally (and more importantly for us), this project aims to develop a social skills program for brain injury survivors to alleviate communication barriers between the two parties during encounter and in your everyday social lives.

Why is this program called Social Circuit Squad? The acronym SCS (Social, Circuit, Squad)

- *S: social skills. This program helps empower you to enhance your social skills and abilities*
- *C: communication. This program offers ways to enhance communication skills and feel confident in them!*
- *S: support. The purpose of this whole program is to provide you with support from me but also from your peers in this program!*

Intro Day!

- Needs Assessment

For this slide, I just want to ask a few questions about your goals for this Program and understand your personal experiences associated with social challenges you come across in the community.

There are 12 total questions within this needs assessment!

Intro Day!

1. Do you experience feelings of frustration or anxiety during everyday social interactions?
2. Can you tell me about a time when you were involved in a social interaction with someone and you experienced frustration or anger with them because they seemed to not understand you.
3. What are some issues you may have that inhibit you to have an easy conversation with a family member?
4. What are some issues you may have that inhibit you to have an easy conversation with a stranger or someone out in the community?
5. How do you cope with social hardship in your life?
6. What support groups do you currently participate in that help you address any overwhelming emotional feelings?

Ask the questions one by one to facilitate discussion amongst participants.

Below is where you will write or type out your notes/participant responses per question:

- 1. Do you experience feelings of frustration or anxiety during everyday social interactions?**

- 2. Can you tell me about a time when you were involved in a social interaction with someone and you experienced frustration or anger with them because they seemed to not understand you.**

- 3. What are some issues you may have that inhibit you to have an easy conversation with a family member?**

- 4. What are some issues you may have that inhibit you to have an easy conversation with a stranger or someone out in the community?**

- 5. How do you cope with social hardship in your life?**

- 6. What support groups do you currently participate in that help you address any overwhelming emotional feelings?**

Intro Day!

7. What support groups do you currently participate in that help you address any communication deficits and needs?
8. What are your personal social goals that you want to obtain in this program?
9. What are some communication deficits that you wish to improve through this program?
10. Can you tell me about a time when you were involved in a social interaction with a police officer and how did that interaction go?
11. What is something you can tell me about your personal experiences with social interaction that would be helpful to know for the general public?
12. What is something you can tell me about your personal experiences with social interaction that would be helpful to know for law enforcement providers when taking an educational course on how to break barriers in communication with brain injury survivors?

Ask the questions one by one to facilitate discussion amongst participants.

Below is where you will write or type out your notes/participant responses per question:

- 7. What support groups do you currently participate in that help you address any communication deficits and needs?**

- 8. What are your personal social goals that you want to obtain in this program?**

- 9. What are some communication deficits that you wish to improve through this program?**

- 10. Can you tell me about a time when you were involved in a social interaction with a police officer and how did that interaction go?**

- 11. What is something you can tell me about your personal experiences with social interaction that would be helpful to know for the general public?**

- 12. What is something you can tell me about your personal experiences with social interaction that would be helpful to know for law enforcement providers when taking an educational course on how to break barriers in communication with brain injury survivors ?**

Welcome to Session 2: Art Day! Today we are going to do a therapeutic art activity! The activity is called a Body Scan. A body scan is a technique used to explore and express emotions, sensations, and experiences through drawing or visual representation of the body (Rietdijk et al., 2020). It involves creating a visual representation of how you perceive your own body by tracing its outline on paper and then filling in or marking different parts of the body to represent various emotions, sensations, or experiences (Rietdijk et al., 2020). Let's begin!

Art Day!

- Therapeutic Art: Body Scan

Let's cut out a body-sized sheet of paper and lay down on it and someone is going to come around and trace your body with a pencil! (this is good for feeling initial sensation of being traced). If you wish to not lay down and be traced, I have some pre-traced bodies on another sheet of life-sized paper!

You will need to provide life-sized paper sheet, drawing/writing tools (oil pastels, markers, watercolors, acrylic washable paint, pencils, clay if people want to get messy

Think of other materials you might need!

Notes from meeting with Art Therapist Stakeholder (Kim Irwin from ITTS in Chamblee):

- **Bilateral drawings: helps with processing trauma and bodily movements**
- **Body scans are one of the best ways to express emotions, sensations, and feelings without having to communicate or talk.**
- **Oil pastels are good for heavy, traumatic expression, good for bilateral drawing**
- **Markers are more contained and can be controlled the easiest (they don't bleed all over the paper and have a finer line versus watercolors).**
- **Clay works well for bilateral and sensory driven, good with trauma, can smooch your hands into it, it's satisfying bc build self-confidence.**
- **Watercolors are hard to control, nice to enjoy the sensory part of letting them bleed across the page, used mostly for sensorimotor**

- **However, might be a mistake to use for people who aren't regulated enough bc they may say "it's not supposed to look like this" due to the uncontrolled bleeding of watercolors. This is why markers are a better form of drawing/writing tool.**

Notes from meeting with Site Mentors (Morgan Barnett and Jane Jackson of BIAG):

- **Could offer body scan OR bilateral drawing activity**
- **Have someone draw their body OR have a pre-drawn body print out (one with wheelchair and one without, for inclusivity)**
- **Sustainability plan think of this with hybrid vs virtual only vs in-person only**

Welcome to Session 3: Support Group Day! This session is a 2-parter!

First, today is a day where we have open discussions with one another and talk about our experiences with social interactions with people you encounter on a daily basis, whether or not they can relate to you! You can be as personal as you want to be! This is a safe space to share anything you want! We are in full support of you!!

Second, we will go through a breathing activity together where we get to relax as we support one another in regulating ourselves!

Support Group Day!

- Talk about your experiences regarding communication and social obstacles you face or have faced in the past.
- Connect with one another and share about your experiences. Let's have discussions!

Anyone may start! Feel free to share any of your own experiences in this regard! Maybe you have anxiety or depression or a social obstacle you want to overcome!

Questions to ask throughout the discussion:

Are there any social or communication obstacles you've had with law enforcement providers?

Ask questions based off what is happening in the discussion!

Support Group Day!

Activity!

- Box Breathing
 - Inhale quietly through your nose for a count of 4 seconds.
 - Hold your breath for a count of 4 seconds.
 - Exhale completely through your mouth for a count of 4 seconds.
 - Pause for a count of 4 seconds.
 - Repeat cycle 4 times.

Take the participants through this activity just as the bullets read.

Support Group Day!

Activity!

- Laughter Yoga
 - **WHERE:**
 - Laughter Yoga Atlanta
 - OR online at <https://celestegreenelaughs.com/free-online-laughter-classes/>
 - **WHEN:**
 - Tuesdays 7:30 PM EST
 - Fridays 11:30 AM EST
- Classes are FREE online and in-person during the monthly scheduled sessions!

This can be a Part 3 but may not have time! Might need to incorporate this instead of Box Breathing if desired! However, this slide is intended to tell participants about a Laughter Yoga studio in Atlanta and address the benefit of Laughter Yoga! (I actually went to a laughter yoga session that was taught by the Laughter Yoga owner, Celeste Greene (the reference point for Laughter Yoga), and I think everyone should try it at

least once! You can actually get certified to be a laughter yoga instructor if you wanted to in order to facilitate this activity within this program!)

Laughter Yoga (reference Celeste Greene):

Email: green.celeste@gmail.com

- *The third (potential) activity we are going to do today is Laughter Yoga at Laughter Yoga Atlanta. The purpose of this activity is to use intentional laughter as a form of physical exercise to enhance health and wellbeing as well as allow you to be a part of your community and be in the social presence of others.*
- *The concept is based on scientific knowledge that shows whether you are laughing at something funny or having fun choosing to laugh, both generate physiological and psychological health benefits.*
- *During a Laughter Yoga session, participants initiate laughter as exercise in a group setting, and through making eye contact and enacting a sense of self-initiated intentional laughter, the session soon becomes genuine and contagious.*
- *Laughter Yoga is not postural yoga and requires limited physical ability, and no special exercise clothing or equipment needed!*

Welcome to the final session of Social Circuit Squad! Today we are going on an outing!

Community Day!

Lunch outing!

Vote for your restaurant of choice!

1. Chick-fil-A
2. Chipotle

Today, we are going to a Lunch Outing! I want this outing to be enjoyable and a way for you guys to get some experience in applying practical social skills in your environment and with those around you (Rietdijk et al., 2020). First, let's vote on which place we would all like to eat at, and majority wins!

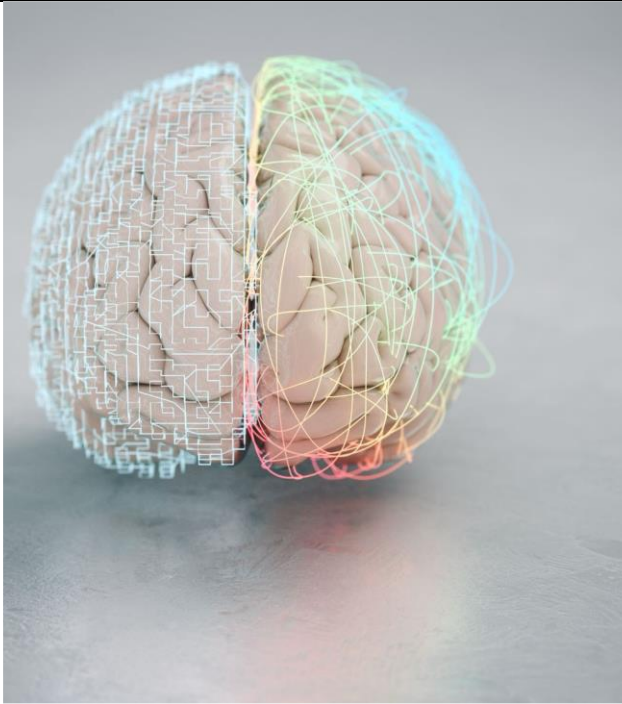
Other ideas for “outings” local to Atlanta/BIAG

- **Georgia Aquarium**
- **World of Coke**
- **Museum (i.e., Fernbank, High Museum of Art, Delta Flight Museum, the Tellus Science Museum, Civil and Human Rights Museum, etc.)**
- **“Beach” day at Fort Yargo in Winder**

Other ideas from Site Mentors

- **IHOP, picnic in the park**
- **A buffet place with the food options you can see and choose for yourself**

Brain Injury Response for Law Enforcement



Brain Injury Response for Law Enforcement

Colleen Johnson

Welcome to Brain Injury Response for Law Enforcement! This is an essential educational course designed to equip police officers with the knowledge and skills necessary for effectively navigating social interactions with brain injury survivors in the field.

This course is comprehensive and tailored to address the unique challenges that law enforcement personnel may encounter when engaging with individuals who have experienced brain injuries. In this course you will learn:

- *The behavioral and cognitive manifestations of brain injuries*
- *Techniques for de-escalating potentially volatile situations*
- *Insights and practical strategies to enhance communication and promote positive outcomes during encounters with brain injury survivors*
- *Critical topics to empower law enforcement officers to respond with empathy, competence, and professionalism in their interactions with individuals affected by brain injuries*

These talking points can be changed or edited, depending on your presentation/speaking style!

Potential places to teach course and create a crisis response team:

- **The Link Center Police Academy through Georgia Dept of Behavioral Health and Disabilities. This was recommended by the Site Mentors, Morgan Barnett and Jane Jackson**

Why is this course important?

- Parkland, FL
- *Nikolas Cruz's defense says his brain was 'poisoned' by birth mother's addictions in death penalty trial*
 - <https://www.cnn.com/2022/08/22/us/nikolas-cruz-trial-defense/index.html>

Why is this course important?

This is supposed to be the “selling piece” to draw in participants to remain engaged and serve as “attention-grabbers”, as recommended by Dr. John Sandford, professor in GSU OT Department.

1. *Having a course about brain injuries to educate law enforcement providers is crucial for several reasons, especially in light of incidents like the shooting in Parkland, FL in 2018 (Ray and Richardson, 2017).*
 1. *Important for understanding behavioral changes in brain injuries, like impulsivity, aggression, and difficulty regulating emotions (O'Rourke et al., 2016).*
 2. *Enhancing crisis intervention and be equipped with the knowledge and skills to handle crises effectively. Training can provide police officers with strategies for approaching and communicating with brain injury survivors in crisis, potentially preventing escalations like the one seen in the Parkland, FL shooting (Rietdijk et al., 2020).*
 3. *Promoting empathy and compassion for fostering a greater understanding towards individuals exhibiting communication and behavioral challenges due to their condition. This can reduce the likelihood of unnecessary use of force or*

escalation of conflicts and lead to more compassionate interactions (Richards et al., 2021).

- 4. Improving community relations by providing awareness about brain injuries and demonstrating a commitment to community safety (O'Rourke et al., 2018).*

Significance of the Parkland, FL shooting/Nicolas Cruz (the shooter):

- Nicolas Cruz was diagnosed with ODD, ADHD, Fetal Alcohol Syndrome, APD, and emotional and learning disabilities*
- Cruz had behavioral issues since preschool. He was transferred between schools six times in three years in an effort to deal with these problems. There were reports that he made threats against other students.*
- Broward County PD responded to these reports and Sheriff Scott Israel described Cruz's online profiles and accounts as "very, very disturbing". They contained pictures and posts of him with a variety of weapons, including long knives, a shotgun, a pistol, and a BB gun. Police said that he held "extremist" views; social media accounts that were thought to be linked to him contained racial and religious slurs against specific communities. YouTube comments linked to him include "I want to die Fighting killing a ton of people", threats against police officers and intent to mimic another shooting that happened in Texas at the University of Texas.*
- The Sheriff said that his office received 23 calls about Cruz during the previous decade before the shooting. On February 5, 2016, the calls included an anonymous tip that Cruz had threatened to shoot up the school, and a tip on November 30, 2017, that he might be a "school shooter in the making" and that he collected knives and guns. On September 23, 2016, a peer counselor notified the school resource officer of his suicide attempt and intent to buy a gun, and the school indicated it would do a "threat assessment" that was never actually performed. In the days following the shooting, calls for Israel's resignation intensified as more information that alluded to the department's inaction was revealed. One source displays a total of 5 paragraphs of "early warnings to law enforcement" that were not dealt with properly.*
- As he could not be expelled from the Broward County School system completely, he was transferred to alternative placement. The school administration had circulated an email to teachers, warning that Cruz had made threats against other students. The school banned him from wearing a backpack on campus.*
- A former classmate said Cruz had anger management issues and often joked about guns and gun violence, which included threats of shooting up establishments, and in which the police were called again, and Cruz was advised to seek out a psychiatric evaluation by a mental health institution stating, "he is at low risk of harming himself or others".*

- *The day after the shooting, an officer who was allegedly attacked by Cruz had told him to “not drag his sandals on the ground” while he was walking in the jail's dayroom. It was claimed Cruz responded by "displaying his middle finger" and striking the officer in the face. He also grabbed the stun gun out of the deputy's holster. The weapon discharged during the brawl before the deputy regained control and Cruz was placed in solitary confinement.*
- *The bottom line is that Cruz slipped through the cracks from the very beginning.*

Why is this course important?

- Louisville, KY
- *Louisville mass shooting suspect's brain will be tested for CTE (Chronic Traumatic Encephalopathy), family spokesperson says*
 - <https://abcnews.go.com/US/louisville-mass-shooting-suspects-brain-tested-cte-family/story?id=98582846>
- Rock Hill, SC
- *Former NFL player Phillip Adams had CTE when he allegedly gunned down 6 people: BU CTE Center*
 - <https://abcnews.go.com/US/nfl-player-phillip-adams-cte-allegedly-gunned-people/story?id=81745487>

Here are other real-life stories from the news, regarding two more people who suffered from brain injuries.

Again, this is supposed to be the “selling piece” to draw in participants to remain engaged and serve as “attention-grabbers, as recommended by Dr. John Sandford, professor in GSU OT Department.

Louisville, KY:

- *Connor Sturgeon (suspect) was about to get fired from job at bank, shoots up the place.*
- *“Connor Sturgeon experienced multiple concussions from playing sports as a child.”*
- *“While Connor, like many of his contemporaries, had mental health challenges which we, as a family, were actively addressing, there were never any warning signs or indications he was capable of this shocking act.”*

- *There's a growing awareness of the potential impact of brain injuries on behavior and mental health. The family is seeking to understand if there might be a link between the suspect's actions and any potential brain trauma, emphasizing the need for a comprehensive examination of such cases beyond just immediate circumstances. This brings attention to the importance of investigating all potential factors, including medical conditions, when addressing criminal behavior.*

Rock Hill, SC:

- *A former NFL player (Phillip Adams) who police said gunned down six people he carried out in the mass shooting at a house in his hometown.*
- *"It is shocking to hear how severe his condition was," his family said.*
- *"Adams "had an extraordinary amount of CTE pathology in the frontal lobe," which "is associated with violent, impulsive or explosive behavior, a 'short fuse,' and lack of self-control."*
- *"CTE has been associated with behavioral symptoms like aggression, impulsivity, explosivity, depression, anxiety, paranoia, and suicidal ideation, along with progressive cognitive symptoms."*

Why is this course important?

- Exposure to brain injury survivors can pose a significant challenge for law enforcement personnel, specifically tactical officers and breachers, who are routinely exposed to explosive and unpredictable events in training and in the field.
- 80% of the population that law enforcement personnel deal with have a brain injury. Enhanced understanding of this large population can allow for law enforcement personnel to approach interactions with greater empathy and adaptability
- Brain injury survivors might exhibit behaviors or reactions that could be misinterpreted without proper knowledge. The goal of this course is to help law enforcement learn effective communication techniques tailored to interact with individuals affected by brain injuries, minimizing misunderstanding and potential escalations.
- Communication barriers often contribute to misunderstandings and conflicts. De-escalation techniques can help law enforcement decrease these barriers more effectively and peacefully, reducing the likelihood of confrontations and use of force.

Who gets called when situations like the stories I have brought up happen? POLICE! You are considered FIRST Responders.

All law enforcement personnel take an oath before sworn in (Richards et al., 2021). Each jurisdiction has varying oaths, but they emphasize the officer's commitment to uphold the law, protect and serve the community, and adhere to the duties and responsibilities of their role

with integrity and fairness (Borum et al., 1998). Every day, law enforcement officers encounter diverse situations that require effective communication (Borum et al., 1998). However, some individuals they interact with might have brain injuries, leading to communication barriers that can complicate interactions (Richards et al., 2021).

Needs Assessment

1. What is it that your facility needs with regard to decreasing communication barriers between law enforcement and the brain injury community?
2. Discuss the descriptions of potential encounters with the brain injury populations that those working in law enforcement experience in the field?
3. Discuss how law enforcement providers feel adequately or inadequately prepared to handle encounters with those who have a brain injury properly.
4. Is there a protocol that law enforcement providers follow when handling encounters with people who have a brain injury? If so, how do law enforcement providers recognize that they are dealing with someone with a brain injury during encounter?
5. What is the current protocol you follow when handling situations with an aggressive person?
6. Are there currently any programs that are already established with regard to providing educational information about how to communicate with the brain injury population during encounters?

First, I want to understand the needs of police officers within this site by asking a series of questions to help assess this program as well as understand ways to address communication barriers between law enforcement officers and brain injury survivors.

This needs assessment is the one to ask participants! Ask this first before proceeding further.

Below is where you will write or type out your notes/participant responses per question:

- 1. What is it that your facility needs with regard to decreasing communication barriers between law enforcement and the brain injury community?**

- 2. Discuss the descriptions of potential encounters with the brain injury populations that those working in law enforcement experience in the field.**

- 3. Discuss how law enforcement providers feel adequately or inadequately prepared to handle encounters with those who have a brain injury properly.**

- 4. Is there a protocol that law enforcement providers follow when handling encounters with people who have a brain injury? If so, how do law enforcement providers recognize that they are dealing with someone with a brain injury during encounter?**

- 5. What is the current protocol you follow when handling situations with an aggressive person?**

- 6. Are there currently any programs that are already established with regard to providing educational information about how to communicate with the brain injury population during encounters?**



Needs Assessment

7. How do law enforcement providers know the difference between what a brain injury looks like versus other mental health/psychiatric conditions?
8. What do people in the law enforcement field need in order to feel adequately prepared to handle encounters safely with those who have a brain injury?
9. What sort of educational programs would law enforcement providers feel like they need with regards to improving communication in the field in general?
10. What are the current steps you are taking to address concerns regarding communication behavior with people in the brain injury community?
11. With regard to developing this educational program for those serving in law enforcement, what are the potential strengths and opportunities that you see?
12. With regard to developing this educational program for those serving in law enforcement, what are the potential weaknesses and threats that you see and how can I fill in the gaps to provide a program that addresses these components?

Below is where you will write or type out your notes/participant responses per question:

7. How do law enforcement providers know the difference between what a brain injury looks like versus other mental health/psychiatric conditions?

8. What do people in the law enforcement field need in order to feel adequately prepared to handle encounters safely with those who have a brain injury?

9. What sort of educational programs would law enforcement providers feel like they need with regards to improving communication in the field in general?

10. What are the current steps you are taking to address concerns regarding communication behavior with people in the brain injury community?

11. With regard to developing this educational program for those serving in law enforcement, what are the potential strengths and opportunities that you see?

12. With regard to developing this educational program for those serving in law enforcement, what are the potential weaknesses and threats that you see and how can I fill in the gaps to provide a program that addresses these components?



What is a Brain Injury?

- TBI (Traumatic Brain Injury): brain dysfunction caused by an outside force, usually a violent blow to the head
- ABI (Acquired Brain Injury): brain dysfunction caused after birth and from internal factors, such as from a medical condition or illness

There are two types of brain injuries that I will discuss throughout the remainder of the course. TBIs and ABIs.

Common Causes of Brain Injury

- Falls
 - From a bed, ladder, stairs, bathtub or shower
- VMA:
 - Collisions with other cars, bikes, or pedestrians being struck by vehicles
- Violence
 - Gunshot wounds, domestic violence, assault, explosive blasts
- Sports
 - Contact with head in practices and games
 - Most common in football, boxing, and soccer

Briefly discuss the 4 main causes of brain injuries and read a few examples of each cause (Colantonio et al., 2014).

Overview of Brain Injury (BI)

Signs	Symptoms	Behaviors
Convulsions or seizures Unequal pupil size Slurred speech Changes in sleep patterns Decreased LOC Loss of balance Loss of skills (toileting) Paralysis of facial muscles	Headaches Blurred vision Confusion and disorientation Light and sound sensitivity Problems remembering Anxiety and depression Drowsiness, fatigue, and dizziness Insomnia	Unexpected frustration and irritability Mood swings/emotional lability Anxious Combativeness Social difficulties Lacking attention and concentration Memory Judgement and Reasoning Communication problems Lacking self-control and self-awareness Risky, impulsivity Lack of empathy for others

First, discuss a few examples from each section. Then, talk about these points (below) as they pertain mostly with the main purpose of the capstone project.

Social difficulties (Behaviors): (O'Rourke et al., 2018).

- *Problems with turn-taking/interruptions*
- *Problems with emotional expression and understanding nonverbal cues*
- *Problems with starting and/or stopping conversation*
- *Dysarthria (ability for mouth muscles to form words) is a common problem as well*

Communication problems (Behaviors): (O'Rourke et al., 2018).

- *Difficulty understanding speech and/or writing and speaking*
- *Challenges with organizing thoughts for response and participating in conversation*

Outcomes from these behaviors: (O'Rourke et al., 2018).

- *Low self-esteem*
- *Social isolation*
- *Low employment rates*
- *Lifelong supports*
- *Family/caregiver burden*
- *Decreased occupational engagement and participation in community = decrease in quality of life*

Case Study 1

- **Scenario:**

- Officers respond to a disturbance call at a local park where a man, John, is reportedly acting erratically and causing a scene. Upon arrival, they find John pacing frantically, yelling incoherently, and exhibiting erratic movements. His behavior seems unpredictable and confusing. The officers approach cautiously, maintaining a safe distance and using calm, non-threatening language. They note John's behavior and assess the situation.

- **How do you approach the situation?**

There are 2 case studies that we will review throughout this course. These case studies are presented as scenarios that are commonly seen within the field and present common behaviors

of brain injury survivors (Ray and Richardson, 2017). I'll read the first scenario, and then we will have some time to discuss some ideas on how to approach the situation.

Before going to next slide: Provide 5-minute period for open discussion among participants and yourself.

Case Study 1

- **Communication Approach:**
 - **Non-verbal Cues:** maintain open body language and avoid sudden movements
 - **Simple Language:** speak in clear, simple sentences, avoiding complex instructions or rapid speech
 - **Reassurance:** offer reassurance and maintain a calm tone to help alleviate John's anxiety
- **De-escalation Techniques:**
 - **Space and Time:** provide physical space and time for person to calm down, avoiding unnecessary contact or attempts to restrain unless for safety reasons
 - **Environmental Adjustment:** try to minimize sensory stimuli by reducing noise and guiding John away from the crowded area to a quieter, less stimulating environment
 - **Establishing Rapport:** attempting to establish rapport can help to inquire about John's well-being, allowing him to express himself at his own pace
 - **Calling for Specialized Assistance:** officers can call the Crisis Intervention Team (CIT) member or a trained mental health professional who has experience in dealing with individuals with brain injuries

Here are some evidence-based approaches to use during interactions where you must handle escalating situations with brain injury survivors. This may or may not translate to other diagnoses but are at least specifically used with brain injury survivors.

Evidence to these approaches:

1. **Fleminger, S., & Ponsford, J. (2017). Long term outcome after traumatic brain injury: More attention needs to be paid to neuropsychiatric functioning. BMJ. 331,7530, 1419–1420.doi: 10.1136/bmj.331.7530.1419**
2. **Center for Disease Control and Prevention. Traumatic brain injury and concussion (n.d).**
3. **Rietdijk, R., Power, E., Attard, M., Heard, R., & Togher, L. (2020). A Clinical Trial Investigating Telehealth and In-Person Social Communication Skills Training for People With Traumatic Brain Injury: Participant-Reported Communication Outcomes. J Head Trauma Rehabil, 35(4), 241-253.**



Case Study 1

- What are some other ways you can resolve the situation?

What are some other ways that this scenario can be resolved?

Provide some time for open discussion and interpretations. Accept questions and ask questions!



Case Study 2

- **Scenario:**
 - Officer Taylor responds to a call about a disturbance in a local neighborhood. Upon arrival, the officer encounters a man, Mr. Chapman, who is acting irrationally and aggressively. Mr. Chapman is agitated, yelling, and exhibiting erratic behavior. Officer Taylor observes signs of potential impairment, such as slurred speech and difficulty maintaining balance.
- **How do you approach the situation?**

Case study looks similar to case study 1, but let's look at the differences.

Before going to next slide: Provide 5-minute period for open discussion among participants and yourself.

Case Study 2

▪ **Communication Approach:**

- **Assessment:** Officer Taylor begins by assessing the situation and recognizing potential indicators of a medical condition. He takes note of Mr. Chapman's behavior and attempts to communicate calmly and clearly.
- **Calling for Medical Assistance:** recognizing the possibility of a medical issue, Officer Taylor calls for an ambulance to ensure Mr. Chapman receives appropriate medical attention.
- **Establishing Communication:** Officer Taylor tries to establish a line of communication with Mr. Chapman by maintaining a safe distance, using non-threatening body language and speaking in a calm and reassuring manner. Officer Taylor consider that Mr. Chapman's behavior may be influenced by a medical condition.
- **Requesting Specialized Assistance:** Officer Taylor requests the presence of a Crisis Intervention Team (CIT) member who is trained to handle situations involving individuals with mental health issues.
- **Securing the Environment:** Officer Taylor takes steps to ensure the safety of himself, Mr. Chapman, and others in the area. This may involve temporarily clearing the immediate vicinity and securing any potential hazards.
- **Des-escalation Techniques:** Officer Taylor employs these techniques, such as maintaining a calm tone, avoiding sudden movements, and providing simple and clear instructions to help the level of agitation.
- **Transport to Medical Facility:** Mr. Chapman is transported to a medical facility once the ambulance arrives for a thorough assessment and appropriate care.

Read through each bullet directly and address the evidence-based approaches below per bullet.

Evidence to these approaches:

- 1. Assessment of Recognition of Medical Conditions: Loucks, J. S. (2013). Educating law enforcement officers about mental illness: nurses as teachers. J Psychosoc Nurs Ment Health Serv, 51(7), 39-45.**
- 2. Calling for Medical Assistance: O'Rourke C, Linden MA, Lohan M, et al. Traumatic brain injury and co-occurring problems in prison populations: a systematic review. Brain Inj. 2016;30:839–854**
- 3. Establishing Communication and Recognizing Medical Influence: Linden, M. A., O'Rourke, C., & Lohan, M. (2020). Traumatic brain injury and social competence among young male offenders. Disabil Rehabil, 42(17), 2422-2429.**
- 4. Requesting Specialized Assistance: O'Rourke C, Linden MA, Lohan M. Misconceptions about traumatic brain injury among probation services. Disabil Rehabil. 2017;40:1119–1126.**
- 5. Securing the Environment: Richards, J., Smithson, J., Moberly, N. J., & Smith, A. (2021). "If It Goes Horribly Wrong the Whole World Descends on You": The Influence of Fear, Vulnerability, and Powerlessness on Police Officers' Response**

to Victims of Head Injury in Domestic Violence. *Int J Environ Res Public Health*, 18(13).

6. **De-escalation Techniques:** Rietdijk, R., Power, E., Attard, M., Heard, R., & Togher, L. (2020). A Clinical Trial Investigating Telehealth and In-Person Social Communication Skills Training for People With Traumatic Brain Injury: Participant-Reported Communication Outcomes. *J Head Trauma Rehabil*, 35(4), 241-253.
7. **Transport to Medical Facility:** Glang A, Ettel D, Todis B, et al (2015). Services and supports for students with traumatic brain injury: survey of state educational agencies. *Exceptionality*. 2015;23:211–224.



Case Study 2

- What are the similarities between Case Study 1 and Case Study 2?
- What are the differences?
- What are some other ways you can resolve the situation?

Similarities with Case 1: might sound the same with this Case Study

Differences: aggressive behavior is CS2, need for medical attention/ambulance.

Provide some time for open discussion and interpretations. Accept questions and ask questions!



The Problem

The lack of education in law enforcement regarding the unique communication needs of brain injury survivors poses a significant challenge to the effective provision of justice and occupational engagement. Brain injury survivors often face communication deficits that are not adequately recognized by law enforcement providers, resulting in potential misinterpretations and unjust treatment within the criminal justice system. Therefore, there is an urgent need for educational training and awareness within the law enforcement community to address these communication needs of brain injury survivors to ensure their safety and equitable access to community participation.

This is the problem statement. Please read aloud.

The problem addresses the purpose of the capstone project and the need to have program implementation



What does current research say?

- The lack of education in law enforcement regarding the unique communication needs of brain injury survivors poses a significant challenge to the effective provision of justice and occupational engagement.
- Brain injury survivors often face communication deficits that are not adequately recognized by law enforcement providers, resulting in potential misinterpretations and unjust treatment within the criminal justice system.
- There is an urgent need for educational training and awareness within the law enforcement community to address these communication needs of brain injury survivors to ensure their safety and equitable access to community participation.

Read each bullet as a summary. Between this slide and the next, these bullets are the 6 main takeaways (only 3 on this slide) from the literature review. The full literature

review provides more in-depth information that addresses what the current research says. You can view that for assessing any changes you would like to make for this slide. There are more than 6 gaps in the literature, but these 6 are the ones I wanted to put an emphasis on for this course.

- 1. Rietdijk et al., 2020**
- 2. O'Rourke et al., 2018**
- 3. Loucks, 2013**



What does current research say?

- Police officers have laboring and stressful jobs that lead them to have anxiety around victims of head injuries due to the unpredictable behavior of brain injury survivors.
- There is a commonality of misconceptions regarding brain injury awareness within probation services, which included law enforcement officers.
- Brain injury survivors lack the healthcare resources they need, due to the significant and negative changes in health that brain injury survivors face.

These 3 points are the remaining takeaways. Again, same thing: The literature review provides more in-depth information that addresses what the current research says. You are welcome to view the literature review to make any changes or enhance any points.

- 1. Richards et al., 2021**
- 2. O'Rourke et al., 2018**
- 3. Glang et al., 2015**

BI vs. Psychiatric/Mental Health Conditions

- Psychiatric disorders are an issue to mental health versus brain injuries contain issues that affect mental health developing
- Mental health illnesses affect someone's mood, thoughts, and behaviors. It impacts the way they perceive the world around them.
- Brain injuries affect these mood, thoughts, and behaviors not because of what they perceive but because physical trauma or an internal factor that happened to the brain.

This slide addresses the differences between brain injuries and other psychological/mental conditions that police officers potentially encounter. The importance of this slide is supposed to acknowledge that police officers might typically encounter someone who has schizophrenia, PTSD, or suicidal ideation/thoughts (Kisely et al., 2010). This may all look the same to them or they may not know the differences, but this slide addresses the specifics to what brain injuries look like on the outside.

Feel free to make any changes to this slide based on your style of teaching.

Brain injuries and mental health conditions like schizophrenia or PTSD can manifest in different ways, both externally and internally. Here's a comparison of how they might appear:

- *Brain Injuries: (Sarapata et al., 1998).*
 - *External Signs: Depending on the severity and location of the brain injury, external signs may vary. Physical symptoms such as scars, bruises, or visible impairments in motor function (e.g., difficulty walking, coordination issues) may be present.*
 - *Behavioral Signs: Individuals with brain injuries may exhibit changes in behavior, mood swings, difficulty with memory, concentration, or decision-making. They may struggle with communication, have difficulty processing information, and experience frustration or emotional outbursts.*
- *Schizophrenia: (Kisely et al., 2010)*

- *External Signs: Schizophrenia is primarily characterized by disturbances in thought processes, perception, and behavior rather than physical symptoms. Externally, individuals may not show obvious physical signs of the condition.*
- *Behavioral Signs: Symptoms of schizophrenia can include hallucinations, delusions, disorganized speech or behavior, social withdrawal, and reduced emotional expression. These behavioral signs may be observable in how individuals interact with others or respond to their environment.*
- *Post-Traumatic Stress Disorder (PTSD): (Kisely et al., 2010)*
 - *External Signs: Like schizophrenia, PTSD may not always have obvious external signs. Physically, individuals may experience symptoms such as heightened arousal (e.g., increased heart rate, sweating) in response to triggers or flashbacks.*
 - *Behavioral Signs: Individuals with PTSD may exhibit avoidance behaviors, hypervigilance, irritability, difficulty concentrating, and sleep disturbances. They may also experience intense emotional reactions or distress when reminded of traumatic events.*

BI vs. Psychiatric/Mental Health Conditions

▪ **Brain Injury:**

- **Physical Symptoms:** Depending on the severity and location of the injury, behaviors resulting from brain injury can manifest in various ways. Physical symptoms like motor impairment, speech difficulties, and coordination issues might be present.
- **Cognitive Changes:** Brain injury can lead to cognitive changes such as memory problems, difficulty concentrating, impaired judgment, and reduced problem-solving abilities.
- **Emotional Responses:** Individuals with brain injuries might exhibit emotional changes, including mood swings, irritability, heightened emotional reactions, or difficulties in regulating emotions.
- **Impulsivity and Lack of Inhibition:** Some may display impulsive behavior or have challenges controlling impulses and exhibiting appropriate social behavior.
- **Executive Functioning Issues:** Difficulties in planning, organizing, and executing tasks might be observed due to the injury's impact on executive functions.

This slide shows a more detailed appearance of what brain injuries look like on the outside (Yeates et al., 2007).

Please review each section and briefly address these appearances.

BI vs. Psychiatric/Mental Health Conditions

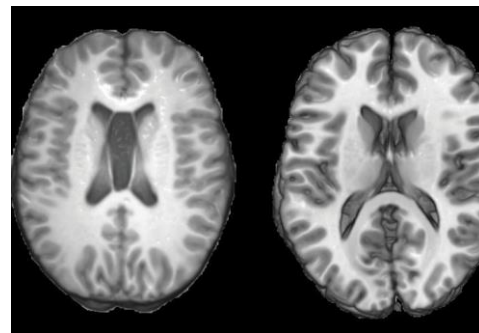
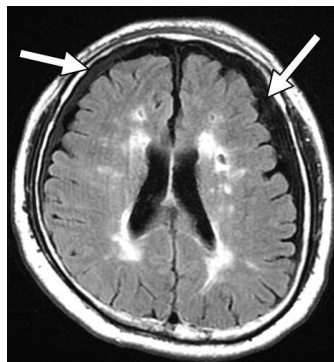
■ Mental Health Illnesses:

- **Mood Disorders:** Mental health conditions like depression, anxiety, bipolar disorder, or schizophrenia can lead to a range of behaviors. For instance, depression might cause social withdrawal, lack of interest, or changes in sleep and appetite.
- **Psychotic Symptoms:** Conditions like schizophrenia can lead to hallucinations, delusions, and impaired thinking.
- **Anxiety Disorders:** Behaviors might include excessive worry, panic attacks, avoidance behaviors, or compulsive rituals.
- **Personality Disorders:** Conditions like borderline personality disorder or narcissistic personality disorder might manifest in behaviors like intense emotional swings, unstable relationships, or difficulties in regulating emotions.
- **Eating Disorders:** Behaviors associated with eating disorders could involve extreme food restriction, binge eating, or purging behaviors.

This slide also shows a more detailed appearance of what other mental health conditions look like on the outside. CITE

Please review each section and briefly address these appearances.

Imaging



These are just some images to give a visual of what a brain injury looks like vs non-brain-injury on CT scan.

- *Far left image:*
 - *The left arrow indicates “normal” spacing (black space)*
 - *The right arrow indicates more spacing (black space), abnormal due to brain damage from matter loss.*
- *Top image:*
 - *Red circle indicates blunt force trauma object that pierced brain matter.*
- *Bottom right image:*
 - *Left: matter loss in thalamus*
 - *Right: hemorrhage in occipital lobe with medullary vein damage*

Communication Needs

- **Structured communication:** “Would you like tacos or pasta for dinner tonight?” VERSUS “What would you like for dinner tonight?”
- **Patience and Understanding:** Brain injury survivors might have difficulties processing information or expressing themselves. Law enforcement officers should be patient, allowing extra time for responses and avoiding pressuring or rushing the individual.
- **Clear and Simple Instructions:** Using straightforward language and clear instructions can aid understanding. Complex or ambiguous commands might confuse someone with a brain injury, leading to misunderstandings or stress.
- **Non-Verbal Communication:** Most survivors might struggle with verbal communication. Law enforcement officers can use non-verbal cues like gestures or visual aids to convey information effectively.
- **Reduced Stressful Environments:** High-stress situations can exacerbate challenges for brain injury survivors. Officers can minimize stress by reducing unnecessary noise, distractions, or crowded spaces when interacting with them.

Please briefly discuss each bullet which addresses common communication needs of brain injury survivors (Hughes et al., 2015, McCarthy et al., 2016, McKinlay & Albicini, 2016, McKinlay et al., 2010).

Site Mentors (Morgan Barnett and Jane Jackson) and Rehab and Beyond owner (Coach Stan) all addressed the importance of first asking for an ID card (as a police officer when talking to someone with a brain injury in the field). This card is something that BIAG gives to their clients to carry with them when in the community. Please review each section and briefly address.

Communication Needs

- **Sensory Sensitivities:** Brain injury survivors might have heightened sensitivity to lights, sounds, or physical contact. Being aware of these sensitivities and trying to minimize triggers during interactions can help prevent agitation or discomfort.
- **Flexibility and Adaptability:** Not all brain injuries affect communication in the same way. Being flexible in communication approaches and adapting to the individual's needs can enhance understanding and cooperation.
- **Communication Partners:** In some cases, having a trusted communication partner, like a family member or caregiver, present during interactions with law enforcement can facilitate communication and understanding.
- **Visual Aids and Support Tools:** Utilizing visual aids, written instructions, or communication boards can assist in conveying information to someone with communication difficulties due to a brain injury.
- **Training and Awareness:** Law enforcement officers benefit from training that raises awareness about the diverse needs of individuals with brain injuries. This education can provide strategies for effective communication and de-escalation techniques

Here are other communication needs of brain injury survivors to be aware of (Pitman et al., 2015, Simpson et al., 2011).

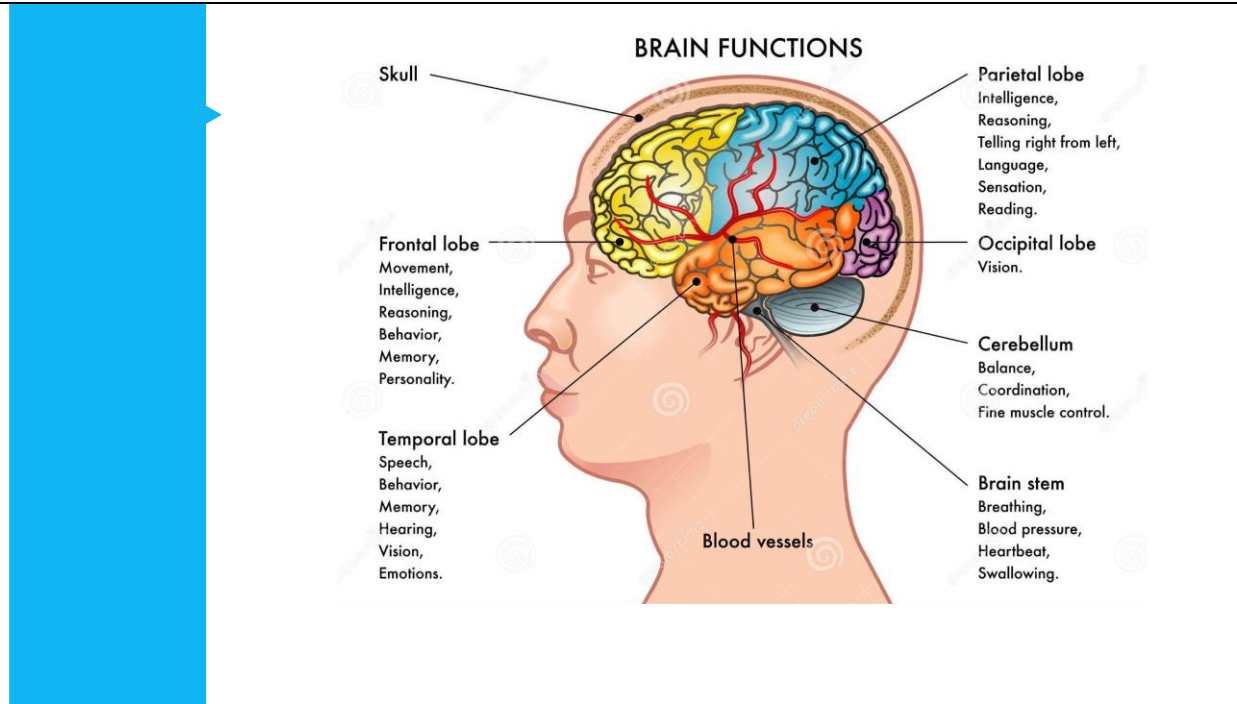
Please briefly discuss each bullet which addresses common communication needs of brain injury survivors.

Communication Deficits

- **Aphasia:** It's a language disorder affecting the ability to speak, understand speech, read, or write. It includes hearing difficulties and impaired ability to understand and express language (communication input and output). There are different types of aphasia, such as expressive aphasia (difficulty expressing thoughts), receptive aphasia (difficulty understanding language), or global aphasia (severe impairment in all language areas).
- **Dysarthria:** This condition affects the muscles used for speech, causing slurred or unclear speech due to weakness or lack of coordination in these muscles.
- **Apraxia of Speech:** This involves difficulty coordinating the movements needed to produce speech sounds. People with apraxia of speech know what they want to say, but their brain has difficulty coordinating the muscle movements necessary to say those words.
- **Cognitive-Communication Deficits:** Brain injuries can also lead to difficulties with attention, memory, problem-solving, and social communication. Individuals might struggle with organizing thoughts, following conversations, or understanding non-literal language (sarcasm, jokes).
- **Voice Changes:** Damage to specific areas of the brain can lead to changes in pitch, loudness, or quality of voice.
- **Pragmatic Difficulties:** Challenges in using language appropriately in social contexts, such as taking turns in conversation, understanding non-verbal cues, or maintaining appropriate eye contact

These are the most common communication deficits that brain injury survivors face and what to look out for as a police officer (Fishbein et al., 2016, Colantonio et al., 2014, Linden et al., 2020, McCarthy et al., 2016, McKinlay et al., 2010).

Briefly discuss each bullet, as they address the most common communication deficits for brain injury survivors.



This image provides another visual for law enforcement participants to gain a general overview of what each part of the brain controls/functions/what it is responsible for (Vermette et al., 2005)

For example: Someone with a TBI to the frontal lobe can impact the person's motor function, intellect, executive function, or even personality. Behaviorally, this may look like diminished IQ and the loss of ability to read, write, or speak (Shiroma et al., 2010).

Ask participants of some other examples that they might be able to think of (up to this point because the course has already covered quite a bit of learning material).



Community Resources for Law Enforcement

- Crisis Intervention Team (CIT) training
 - Brain Injury Association of America (BIAA) and BIAG can provide specific training modules for law enforcement.
- Establish partnerships with local healthcare providers or brain injury specialists who can provide guidance and resources for law enforcement.
- The Brain Injury Association of America (BIAA) and BIAG, BrainLine, or the Centers for Disease Control and Prevention offer educational materials, toolkits, and resources for law enforcement dealing with brain injury survivors.

Briefly discuss these community resources that law enforcement officers can use. These have been provided by the Site Mentors at BIAG.

BrainLine (third bullet):

- *An online resource that provides information and support for individuals affected by TBI and their families*
- *Offers a wealth of resources, including articles, videos, research, and personal stories, all aimed at helping individuals understand, cope with, and navigate life after a brain injury*



Community Resources for Law Enforcement

- Develop clear protocols or guidelines within law enforcement agencies for handling encounters involving individuals with brain injuries that emphasize patience, clear communication, and an understanding of potential behaviors related to brain injury.
- Development of peer support networks within law enforcement agencies where officers can share experiences and strategies for dealing with challenging situations involving brain injury survivors.
- Encourage ongoing education and awareness within law enforcement agencies about brain injuries and their impacts on behavior and communication. Law enforcement personnel are required by the state to participate in gaining a certain number of CEUs per year.

Here are some other community resources for law enforcement providers that have been provided to you by BIAG.