Brain Injury and the Impact on Life and Farming

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AgrAbility
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Agenda

• Welcome & Introductions
• Brain Injury 101
• Winston’s Story
• Treatment & Rehabilitation
• Affects of Brain Injury on Daily Life & Assistive Technology Solutions
  – Relationships Are Everything
  – Safety vs. Dignity of Risk
  – Fatigue
  – Memory
  – Sequencing
  – Sense of Direction
  – Impulsivity & Reasoning
  – Sensory Issues
  – Suicide
• Sensitivity Activity
• Resources
• Questions
Welcome & Introduction

**Kelley McTague, COTA/L, ATP**
- Grew up farming in Maine, our home was a foster home & day program for adults with developmental disabilities.
- Was an Independent living specialist for Maine’s Independent Living Center for 17 years
- Chairs The State of Maine’s Acquired Brain Injury Advisory Council
- Husband is a man with a severe brain injury

**Karen Funkenbusch, PhD**
- Director/PI, Missouri AgrAbility Project
- State HES Health and Safety Specialist
- State-Level AgrAbility Program, since 1994
- Partnership with Brain Injury Association of Missouri
- Spouse is farmer, Northeast Missouri

**Maureen Cunningham, CFRE**
- Executive Director, Brain Injury Association of Missouri
- Member of various networking associations focusing on services for persons with disabilities through Missouri
- Active in Brain Injury Association Affiliate leadership team
- More than 20 years non-profit management experience
Brain Injury 101

• **Statistics**
  - Every 18 seconds someone sustains a brain injury
  - Of the 1.4 million people who sustain a traumatic brain injury each year
  - 235,000 are hospitalized, 50,000 die
  - Nearly 800,000 strokes occur each year
  - 5.3 million Americans have a long-term disability due to brain injury
Brain Injury 101

• Types of Brain Injury
  • Acquired Brain Injury
  • Traumatic Brain Injury
Brain Injury 101

• Causes of Acquired Brain Injury
  • Stroke
  • Anoxia
  • Aneurysm
Brain Injury 101

• Causes of Traumatic Brain Injury
  • Falls
  • Blunt Trauma (accidently being struck by or against an object)
  • Motor Vehicle Crashes
  • Assault
  • Unknown
Brain Injury 101

- Effects of Brain Injury
  - Cognitive
  - Physical
  - Perceptual
  - Psychological / Emotional
Brain Injury 101

- Cognitive Effects – Difficulty with
  - Short-term Memory
  - Processing New Information
  - Concentration
  - Distraction
  - Judgment
- Sensory Overload
- Language Abilities
Brain Injury 101

- Perceptual Effects – Difficulty With
  - Hearing
  - Touch
  - Time and Space Disorientation
  - Balance
  - Vision
Brain Injury 101

• Physical Effects – Difficulty With
  • Motor and Physical Skills
  • Endurance/Fatigue
  • Persistent Headaches
  • Sensitivity to Light or Noise
  • Seizures
Brain Injury 101

- Psychological Effects – Difficulty With
  - Dependence / Independence
  - Depression
  - Self-Awareness
  - Mood Swings
  - Personality Changes
  - Suicidal Thoughts
  - Paranoia
Winston’s Story
Finding His Way
One Day At a Time
Treatment & Rehabilitation

• The event
• Doctors office or ER?
• ICU & Acute Rehab
• Neuropharmacology
• Neuropsychological Evaluation
Treatment & Rehabilitation

- Neuro-rehabilitation Clinics (OT, PT Speech)
- Psychology, Psychiatry, Counseling
- Vocational Rehab
- Community Support
Effects of Brain Injury on Daily Life

- Relationships Are Everything
- Safety vs. Dignity of Risk
- Fatigue
- Memory
- Sequencing
- Sense of Direction
- Impulsivity & Reasoning
- Sensory Issues
- Suicide
Relationships Are Everything
Who are you and what have you done with Winston?

- This area is the most important message Winston wanted me to portray
- His brain injury disrupted his relationships with everyone he knew
- He states in hindsight all areas of rehab should be helping the person and their family and friends understand brain injury
Relationships are Everything
(Continued)

- Marriage
- Parenting
- Family
- Friendships
- Employers
- Your Community
Safety vs. Dignity of Risk

Trying to find safety / brain development balance

• Who knows what’s wrong: poor reasoning, poor judgment, no inhibition, holes in my long term memory and no short term memory

• How do these issues relate to my every day life? I wonder which mistake I will learn from today?

• Solutions: SUPERVISION, lists, reminders, video instructions, adjust tasks, practice, practice, practice.
Fatigue

Fatigue is one if the most consistent symptoms for those with Brain Injury

• Increase stress = Increase fatigue
• Rest is vital for healing
• Safety affects of fatigue

Solutions:
• Schedule rest whenever possible
• Keep routines
• Educate the person and their family how vital this is for safety
Memory Issues are also one of the most common issues associated with brain injury:

- Short Term Memory Issues: Mild to Severe
- Long Term Memory Issues: Mild to Severe

Safety Factors for consideration:
- Missing important chores, appointments or family needs
- Forgetting to take medication
- Forgetting how to complete a task or steps of tasks
- Frustration and anger (dealing with one’s own and that of others)
Memory Solutions

- Routines are vital!!
- Write it all down: memory journal
- Use phone notes, lists and reminder apps to write down everything
- Calendar where everyone can see it, ask family for reminders
- Use phone calendar and set alerts for everything
- Family, remind the person to look at that calendar at set times of the day
- Some smart watches are good for vibration alerts if working in a loud area or on equipment regularly
- Use medication minding technology & alerts on phone
- Develop video tutorials for tasks to assure no steps are forgotten
- Supervision
Sequencing

Getting things done in the right order and understanding the relationships between steps is very important for safety and success.

**Examples:** Following a recipe, changing the oil, hooking up a piece of equipment, closing the gate on the way out, cleaning, etc.

**Solutions:**

- Supervision
- Written or video instructions
- Alerts (gates open!)
- Practice, practice, practice
Space and Time Disorientation

• Issues
  • Risk of secondary injuries
  • Over or under watering crops, feeding livestock, or meals for self or family
  • Safety concerns

• Suggestions
  • Written and phone notes with status, date and time
  • Verbal confirmation of distances and time, especially new environment
  • Low-vision walking stick or other assistive device
Impulsivity & Reasoning

• Issues
  • Not considering all aspects of decision or action
  • Thought not given for safety
  • Rash decisions with bad consequences

• Suggestions
  • Ask exploratory questions to help the person consider potential outcomes
  • If safety, excessive costs, relationships are not high risk – let the person try
  • Safeguard the environment
Sensory Issues

• Issues
  • Changes in touch, temperature, taste and movement
  • Overstimulation can lead to behavior issues
  • High risk of secondary injuries

• Suggestions
  • Develop routine with healthy eating, exercise and productive activities
  • Recognize triggers of undesired behaviors and practice response to handle
  • Reminders and coded cards – red with “hot” or “stop”
Suicide

• Issues
  • Higher for persons with brain injury
  • Depression is common and can lead to suicidal thoughts, attempts, and death
  • Related factors: impulsive behaviors, fixation of thoughts, hopeless feeling

• Suggestions
  • Depression is treatable. Seek professional medical care and counseling
  • Maintain positive, problem-solving attitude. Be aware of suicide cues.
  • Obtain professional crisis management guidance – Suicide Crisis Helpline
Sensitivity Activity
National

AbleData
Tools & Technologies to Enhance Life
http://www.abledata.com/

Brain Injury Association of America

BrainandSpinalCord.org

AgrAbility
Cultivating Accessible Agriculture
National

http://www.brainline.org/landing_pages/categories/technology.html

45 Life-Changing iPhone and iPad Apps for People with Brain Injury
National

Assistive Technology Exchange Center (ATEC)
http://www.ocgoodwill.org/changing-lives/assistive-technology-exchange-center

Medicare
http://ssa.gov/disabilityssi/
National

http://www.brainlinemilitary.org/categories/rts.php?topic=Accommodations+and+Technology

http://www.benefits.va.gov/compensation/

http://www.benefits.va.gov/vocrehab/index.asp

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Low Interest Loans

http://www.resnaprojects.org/allcontacts/allafpcontacts.html

National Assistive Technology Technical Assistance Partnership (NATTAP)
http://www.resnaprojects.org/nattap/at/stateprograms.html
State

- Community Action Agencies
- Centers for Independent Living (CIL)
- Rehab Services for the Blind
- Rural Development - U.S. Department of Agriculture
- Vocational Rehabilitation
- Other
Brain Injury and the Impact on Life and Farming

QUESTIONS