Behavioral & Psychosocial Issues in Farming

CPH 728
Health of Agricultural Populations
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Outcomes for Instruction

• Students will be able to describe the context of psychological and behavior risks of farming
• Students will know the various psychological risks associated with farming: stress, depression, suicide and other mental illness documented in the literature.
• Students will analyze the relationship between psychological risks and behavioral risks.
• Students will be able to describe the influence of culture on behavior (especially related to denial of stress etc.)
• Students will be able to identify prevention/education/direct service approaches that might assist farmers who have psychological or behavioral problems.
Behavioral & Psychosocial Issues in Farming: Three Part Presentation

• Part I: Overview and Issues for Farm Families
• Part II: Children & Adolescents, Men, Women and Seasonal Workers
• Part III: Addressing Issues and Interventions
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Introduction: A Context for Behavioral and Psychological Issues for Farmers

- Although farming is often mythologized as a pastoral occupation and a healthy and peaceful way of life, it is in fact one of the most dangerous occupations and farms are considered among the most dangerous environments for farmers regardless of age (young children – seniors), gender or ethnicity.

- Well documented in the literature that farming is a physically and psychologically-demanding occupation (Deary, 1997, Gregoire, 2002).
Introduction: A Context for Behavioral and Psychological Issues for Farmers

• Working agriculture characterized by a broad range of physical, biological, chemical and mechanical, as you’ve been introduced to in this class. These physical exposures to hazard also have psychological effects as well. Psychological factors then affect behavior through decision making and what we’ve come to understand are cultural factors, as well.
Introduction: A Context for Behavioral and Psychological Issues for Farmers

• In contrast to the serenity associated with the *country life*, the reality of day-to-day operation of farm enterprises presents in a real-world
  – of volatile commodity markets;
  – limited availability of off-farm employment;
  – growing cost of machinery and production;
  – loss of farm or livelihood due to crop or production failure
  – climate change (Berry et al. 2011)
  – changing government policy in relation to a range of economic and environmental issues.
Introduction: A Context for Behavioral and Psychological Issues for Farmers

- When coupled with a on-the-farm injury to a worker or family member, farmers and their families have both physical and emotional stressors that can become overwhelming.
- A 2018 focus group study (Malin, Garrett-Wright & Jones) found four self-reported themes related to farmer stress:
  - The highs and lows of their occupation impact all aspects of their life.
  - There are multiple sources of stress including: lack of control, lack of understanding and appreciation for farming, and anticipatory stressors.
  - Farmers continue to farm because of their love for farm life and the generational connection to the land.
  - To decrease stress, participants recommend educating the public about farming, creating social groups for farmers, and sharing the farmer story.
Introduction: A Context for Behavioral and Psychological Issues for Farmers

• Farmers are no different than the general public when it comes to seeking assistance for any personal or family problem – physical or psychological.
What Are Psychological Issues Experienced by Farmers?

• Significant psychological hazards associated with agriculture (Gregoire, 2003), including high levels of stress (Booth & Lloyd, 2000), depression and anxiety (Eisner et al., 1998), and increased rates of suicide (Booth et al., 2000; Page & Fragar, 2002).

• How are farmers *uniquely* exposed to these risks? What are the factors?
Family

• Farms as often a location for both work and home has mental health implications
  – Blurring of roles between work, home and family can cause issues for farm family members.
  – Proximity of family members – can be supportive or can mean added responsibilities
  – Conflicts in inter-generational roles can occur
  – Family problems can become work problems, or the reverse (Swisher, 1998)
Family

• Farms as often a location for both work and home has mental health implications
  – Rivalries among siblings or favoritism take on added weight in the context of a corporate farming or even a family farm operation (Kohl, 1976)

• Most research has been on two generation farms and it is the younger generation who has suffered most in this calculus
Family: Younger Generation Farmers

– No retirement age or culturally accepted one, tends to position younger farmers in a dependent roles for much longer than they design

– Passing of ownership and rights also often a tension (an Australian study found that 63% had not discussed farm inheritance – Gamble, 1995).
Family: Younger Generation Farmers

– Studies have shown younger generation farmers report high levels of stress, dissatisfaction with life and lower levels of perceived support.

– Daughters-in-law experience the highest levels of stress within farm families. And the relationship with in-laws deteriorated the longer the marriage. (Marotz-Baden & Mattheis, 1994).
Five Conflicts within the Farm Family and Mental Health

1. Justice Conflicts
2. Role Conflicts
3. Identity Conflicts
4. Work/Home Conflicts
5. Succession Conflicts

- All these have negative impact on the quality of farm family life, and thus on farm productivity, increasing tension and stress
Farm Family Conflict and Mental Health

• Link between moderate family conflicts, depression and suicide
• But, links have also been found between monetary/economic issues on farms and suicide and depression (Malmberg et al., 1999; Simkin et al., 1998)
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Issues for Individual Farmers

- Various farm populations have varying mental health and behavioral issues
  - A focus by section here will include
    - Children and Adolescents
    - Men
    - Women
    - Seasonal Workers
Risks to Children/Adolescents

• Farm children experience similar stresses and exposures as those who live in cities or suburbs.
• However the blurring of the work/family role also has effects for children
  – Often working as part of family farm chores –
  – Often tasks are NOT age appropriate and can result in injuries/often very serious – can cause stress and depression
Risks to Children/Adolescents

- Risks related to their physical strength, small size and limited experience with farm equipment or processes – they also have limited reaction time
- Farm injury to children often results in disability or long term rehabilitation (Raphael, 2000) that manifests as:
  - somatic complaints
  - delinquency problems
  - attention problems
  - aggressive behavior
  - social problems,
  - withdrawal
  - anxiety
  - depression.
Benefits to Children on Farms

• Farm life and work does have dimensions that contribute to positive mental health:
  – Strong sense of shared identity
  – Close relations, family and community trust
  – Skills developed from participating in farm work (such as practical skills, self-efficacy, and sense of purpose).

• Often a health professional can build on these strengths to assist a child or her/his family
Men on Farms: What Can Impact Mental Health/Health Behaviors?

- The expectations of traditional family roles
- Male socialization
- Models of masculinity
- Aspects of male identity may be tied to the farm with threats to farm viability challenging the source of family tradition, livelihood and feelings of self-worth
Men on Farms

- Higher rates of suicide than matched cohorts of other rural males (Page & Fragar, 2002)
- Higher rate of suicide/psychiatric morbidity
- Thought men have access to high lethal methods for suicide (chemical, fire arms)
- Suicide in farm males result of crises over time rather than a single precipitating incident (depression) (Malmberg et al., 1999).
Women on Farms

• Studies of women in farming have found high levels of stress and depression (Carruth & Logan, 2002) and fatigue, and at levels higher than men (Walker & Walker, 1988)

• Carruth & Logan (2002) also assert that women experience all the stressors of farm family life and to the impact of those stressors on the family in their role as care-giver.
Women on Farms

- On smaller or farms experiencing economic downturns women are often expected to undertake more on- and off farm work (on-farm work including tractor driving, caring for young animals, planting and farm accounting).

- “Third shift” phenomenon for off farm working women (25% of farm women).
Seasonal Workers

- Limited research on the effects of farming on the families of seasonal workers. However, their families experience the same stressors that all farm families do, the blurring of roles and the economic pressures of seasonal work.
- Immigration status and other stressors are also issue
Seasonal Workers

• Research over several decades has also shown that children of seasonal workers did not access mental health services in over 50% of situations requiring care for psychiatric diagnoses.
• Transient nature of work, unpredictable work availability, poor quality housing are additional contributors to anxiety, poor health and
• Immigration status and other stressors are also issue
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The Current Focus on Farmer Mental Issues

- **The 2018 Farm Bill**
  - National Farm Bill legislation that specifically provides funding and support for farmer mental health service

- **Growing awareness of farmer suicides (Federal, State, Local)**
  - While a recent statistic put forth by the CDC was flawed, it did garner much public attention to the issue of farmer suicides
  - We DO know that older males have higher rates of suicide and that the farming population is aging, so we can venture some extrapolation there as to the rising rates of suicide among older male farmers.
  - KY Representative Brandon Reed passed a KY Legislative Resolution Declaring September 18th Farmer Suicide Awareness Day (see https://spectrumnews1.com/ky/lexington/news/2019/09/18/officials-bring-awareness-to-farmer-suicide-)

The Current Focus on Farmer Mental Issues

• Acknowledgement of lacks/gaps in services and access to mental health care (part of the issue of access to all health services in rural areas in the U.S.)

• Farmers see public’s general lack of understanding of farming and agricultural stressors as part of the issue (Malin, Garrett-Wright, Jones, 2018).

• Most NIOSH-funded Agricultural Safety & Health Centers in the Country are developing Farmer Mental Health & Suicide Prevention programs
  – Southeast Center (SCAHIP) has partnered with the Kentucky Dept. of Agricultural on FFA projects (see http://www.uky.edu/scahip “Living the Safe Farm Life” series or https://www.unmc.edu/publichealth/cscash/ “Telling the Story” series for examples)
Access to Mental Health Services

• Issues experienced mirror those in all rural areas:
  – Remote farm locations, distance, poor roads, sparse health services (and clinicians) and
  – Stigma in small, tight knit communities is also a factor, where visibility heightens the general attitude of the public to deny the need to mental health or behavioral services.

• Also, farmers have long had a culture of self-reliance and stoicism that is a barrier
  – Booth et al. (2000) though, found that, in suicides, there was no difference in use of mental health services in farm and non-farm communities.
Narrative Psychology and Behavioral Change

• Picking up the thread of self-reliance and stoicism....Farmers often accept high levels of risk and engage in unsafe practices (Sorensen, 2007).

• What might explain these behaviors and how can agricultural safety advocates intervene?
Narrative Psychology and Behavioral Change

• Sarbin (1986) defined a narrative psychology that focused on the storied nature of human conduct. The present is fleeting and passes in a flash. Beliefs and behavior are driven by our reflections of past events and their meaning, as well as by imagined future goals and strategies by which to attain them.

• Bruner (1986) noted that lives are directed by the stories we create, tell, and live and create ‘culture tales’ that serve as moral markers and guideposts to acceptable behavior.
Narrative Psychology and Behavioral Change

• Interventions to change attitudes and behaviors about safe farm practices or accessing help when mental health issues arise must be informative, but must also include attention to the powerful stories farmers pass on through cultural storytellers – near misses and other true stories are part of growing up a farmer (Cole, 1997; Murphy 2003)

• See [http://www.uky.edu/scahip](http://www.uky.edu/scahip) and
Apprenticeships of Observation

• Lorties’ (1975) seminal work in understanding another occupation’s persistent improper practice has much to inform our understanding of farmers’ tolerance for risk, based on their lifelong experience observing farm practices.

• Lortie’s theory suggests that beginning teachers' socialization into teaching starts when they are students and serves to perpetuate traditions at the expense of reflective and informed change.
Apprenticeships of Observation

• In effect schooling provides a powerful *apprenticeship of observation* that is not in evidence for other practice professions.

• Farm children are also engaged in similar immersive *apprenticeships of observation*. Participants in farm safety programs who have experienced apprenticeships of observation enter these programs with an ‘insider’s perspective’ (Pajares, 1992).
Cultural, Cognitive & Behavior Aspects to Safety Interventions

• Farm safety, injury prevention programs and programs that can support access to mental health service must realistically contend with and attempt to accommodate or overcome these entrenched and resilient belief systems.

• Interventions should emphasize discussion of beliefs and attempt ‘story repair’ (in a narrative psychology sense).
Cultural, Cognitive & Behavior Aspects to Safety Interventions

• Cultural, cognitive and behavioral aspects of farm safety intervention in these various projects (Cole, 2001; Cole et al., 2004) were addressed using theory and best practices from educational psychology, economic risk, cost & decision analysis, education and safety behavior change models (Mazur et al., 2009)
Cultural, Cognitive & Behavior Aspects to Safety Interventions- Cole’s Model
Developing Interventions

• It is possible to design a story-based intervention (simulation) that integrates these four dimensions to consider (Culture, Cognition, Conduct & Consequences) that integrates with a Safety Intervention approach, in this case the Haddon Matrix.

• The Haddon Matrix is a ‘phase by factor’ approach. The phases are pre-injury events, the injury event and the post-injury events. The factors were defined by Haddon as (1) Human/Individual (2) Injury Agent (3) Environment and (4) Social factors.

• The Following slide denotes story elements from a simulation called *Brad’s Last Ride* about an ATV injury, referenced to the Haddon Matrix.
Brad’s Story via the Haddon Matrix (Cole 1994)

<table>
<thead>
<tr>
<th>Injury Phase</th>
<th>Human Individual</th>
<th>Injury Agent(s)</th>
<th>Physical Environment</th>
<th>Social Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-event</strong></td>
<td>anger, frustration, lack of supervision</td>
<td>ATV/rider mass momentum, immobile fence</td>
<td>noise, speed, limited time, no helmet</td>
<td>distraction, horseplay, no helmet wearing</td>
</tr>
<tr>
<td><strong>Event</strong></td>
<td>Brad’s loss of ATV control</td>
<td>un-helmeted skull strikes fence post</td>
<td>huge impact forces to skull and brain</td>
<td>competition, operator distraction</td>
</tr>
<tr>
<td><strong>Post Event</strong></td>
<td>severe TBI, EMT, advanced life support, life-long nursing care</td>
<td>huge millisecond deceleration forces to brain</td>
<td>brain tissue tears, liquefies, and is destroyed</td>
<td>life-long costs of loss of memory, cognitive, motor, social functions</td>
</tr>
</tbody>
</table>

Family factors can cause these emotions, e.g. also may be Social Factors.

Economic stressors in the post event are in the story of Brad. In the Indiv and Social Factors.
Future Trends and Issues: Psychosocial and Behavioral Ag Health & Safety

• Move in NIOSH – Total Worker Health (2013), applied to agriculture, agribusiness
  – Interaction of Lifestyle and Personal Risk with associated occupational injury
    (ACOEM Committee on Health, 2009)
  – Emerging Issues and Pilot Funding for Farmer Mental Health services and awareness during 2018 and 2019.

• Implementation of the 2018 Farm Bill and additional Legislative Actions (Ernst from Iowa and Baldwin from Wisconsin introduced the 2019 Farmer First bill to provide Mental Health Services to Rural Communities).

• Returning military deployments – recruiting for agriculture and agribusiness –KY (veteranstofarmers.org)
  – Transition issues, PTSD, Conflicting Family Roles
• Other behavioral consequences of depression and stress not previously associated with agriculture – obesity, diabetes (Myers, Lane & Marsh, 2007)
  – Aging Farm Population and Youth at Risk
References


Cole et al., 2004


References


