Mental Health in Rural Communities: Some Things to Think About

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Different Places....

Different Hazards
Occupational Health & Hazards
Occupational health deals with all aspects of health and safety in the workplace and has a strong focus on primary prevention of hazards. The health of the workers has several determinants, including risk factors at the workplace leading to cancers, accidents, musculoskeletal diseases, respiratory diseases, hearing loss, circulatory diseases, stress related disorders and communicable diseases and others.

Source: http://www.who.int/topics/occupational_health/en/
In the News

Farming Poll: One in Five Rural People Have Experience of Depression

Irish Examiner/Irish Creamery Milk Suppliers Association (ICMSA) Poll:

• 8% Self or immediate family member had some experience regarding suicide
• 23% Female respondents: More likely to experience depression than men
• 16% Highest percentage who had personal experience of or family member with depression age group 35-44
• 23% Felt lonely or isolated
• 63% did not feel lonely or isolated

• Sense of isolation most prevalent in aged 55-64 (33%)
• Worked exclusively on farm felt lonely (26%)
• Job off farm and lonely (19%)

Dairy farmers (and non tillage and livestock population) had highest percentage of depression.

Source: http://www.irishexaminer.com/ireland/farming-poll-2016-one-in-five-rural-people-have-experience-of-depression-422573.html
Agricultural Fatalities Ireland

Main causes of deaths in Agriculture 2007 - 2016

- Tractors, Farm Vehicles, 54, 27%
- Machinery, 41, 21%
- Livestock, 26, 13%
- Drowning, Gas, 19, 10%
- Falls from Height, 19, 10%
- Falling objects, Collapses, 18, 9%
- Timber related, 13, 7%
- Electrocution, 3, 1%
- Others, 4, 2%

Total 197

Source: Health and Safety Authority website
http://www.hsa.ie/eng/Your_Industry/Agriculture_Forestry/Further_Information/Fatal_Accidents/
Physical Risk to Agri Workers

Table 1: Percentage of workers reporting exposure to physical risk at least a quarter of the time
Source: Fifth European Working Conditions Survey

<table>
<thead>
<tr>
<th>Physical Risk</th>
<th>Agriculture Industry</th>
<th>EU-27</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vibrations</td>
<td>41.9%</td>
<td>22.5%</td>
</tr>
<tr>
<td>Noise</td>
<td>37.1%</td>
<td>29%</td>
</tr>
<tr>
<td>Breathing in smoke, fumes, powder or dust</td>
<td>24.4%</td>
<td>16.5%</td>
</tr>
<tr>
<td>Handled chemical substances</td>
<td>23.3%</td>
<td>15.3%</td>
</tr>
<tr>
<td>Exposure to infectious material</td>
<td>14.3%</td>
<td>11.3%</td>
</tr>
<tr>
<td>Tiring or painful postures</td>
<td>72.3%</td>
<td>46.4%</td>
</tr>
<tr>
<td>Carrying or moving heavy loads</td>
<td>65.1%</td>
<td>33.5%</td>
</tr>
<tr>
<td>Standing or walking</td>
<td>88.7%</td>
<td>69.1%</td>
</tr>
<tr>
<td>Repetitive hand or arm movements</td>
<td>72.5%</td>
<td>63.5%</td>
</tr>
<tr>
<td>High temperatures</td>
<td>48.7%</td>
<td>22%</td>
</tr>
<tr>
<td>Low temperature</td>
<td>59.6%</td>
<td>23.5%</td>
</tr>
</tbody>
</table>

Physical, Social, Psychological

All of these things can have an impact on you feel
Physical Stuff
Musculoskeletal Disorders

Work-related musculoskeletal disorders can be painful

Disorders of the bones, joints, muscles and spine: Can cause pain, stiffness or a loss of mobility and use of hands that can make it difficult to carry out everyday activities.
Musculoskeletal Disorders (MSD)

Work-related musculoskeletal disorders can be painful

This has an impact on:

• Your body
• **Functioning and limitations**
  • (Short-term & long-term)
• Your **income**
• Your **profits**
• Farm workers experience back aches and pains in the shoulders, arms and hands more than any other health problem
Musculoskeletal Disorders Are Problems for Farmers Globally

Review of 24 Studies from around the world on musculoskeletal disorders and farmers identified that the most common problems were:

1. Lower Back Pain
2. Upper and Lower Extremities

- Prevalence of MSDs more common in farmers than in non-farmer populations
- Lower Back Pain the most commonly studied
- Life-time lower back pain prevalence ranged from 68.3% to 81.3%
From the Research
Study of Farmers in Ireland (Whelan, et al 2009)

- Arthritis (31%) and Back Problems (17%) most frequently reported
- Farm income was lower where the operator had MSD-related disability

Musculoskeletal Disorder

Not just in agriculture…

Musculoskeletal disorders (MSD) and stress, anxiety and depression (SAD) illnesses are found to be the two most common forms of self-reported work-related illness in Ireland and elsewhere.

Over the period 2002 to 2013, these two groups of illnesses together accounted for 61 per cent of work-related illness in Ireland and 75 per cent of work-related illness in the EU28 (Health and Safety Authority Ireland).

Source:
http://www.hsa.ie/eng/Publications_and_Forms/Publications/Corporate/ESRI_Research_Series_Number_53.pdf
Machines, Tools & Equipment
(And Hazards)

Tool design, working surface height, and equipment dimensions may make very different demands on the body, depending on workers’ dimensions (Courville et al., 1991, 1992; Stevenson et al., 1996; Punnet and Bergqvist, 1999).

Physical Injuries and Limitations

Secondary Depression

- Chronic Pain
- Loss of Function
- Limitations in Functioning
- Lack of Activity (Exercise)
Environmental
Environmental Hazards

Common Occupational Diseases Caused by Chemical Agents

- Cancers
- Skin Diseases
- Respiratory Diseases

From the Research

Pesticides and Depression: Lots of research over the years...

• Most insecticides (organophosphates) work by disrupting insects’ nerve cells.
• Farmers can breathe in and absorb toxins when working.

Exposure to pesticides, particularly organophosphate insecticides (OPs), associated with depression (Bazylewicz-Walczak et al. 1999; Beseler and Stallones 2008; Beseler et al. 2006, 2008; Mackenzie Ross et al. 2010; Onwuameze et al. 2013; Rehner et al. 2000; Salvi et al. 2003; Weisskopf et al. 2013; Wesseling et al. 2010).
From the Research

Twenty year study: Pesticide exposure and depression among male private pesticide applicators in the Agricultural Health Study (Beard, et al 2014)

Farmers with highest number of lifetime exposure days to pesticides 50% more likely to later have a depression diagnosis.

Association between:
Pesticide exposure and depression (and associations with specific pesticides).

Depression and ever-using fumigants and organochlorine insecticides and ever-using specific pesticides: Fumigants- aluminum phosphide and ethylene dibromide; the phenoxy herbicide 2,4,5-T; the organochlorine insecticide dieldrin; and the Ops diazinon, malathion, and parathion.

Depression and Cumulative Days of Use:
Fumigants: ethylene dibromide and methyl bromide, the fungicide captan, and the organochlorine insecticide lindane.

Data from US Agricultural Health Study (N = 52,394) licensed private pesticide applicators (including farmers).
From the Research

More Info

Colorado study of farmers and spouses (over 3 year time span) who reported past pesticide poisoning were twice as likely to be depressed during follow up than those who did not (Beseler and Stallones 2008).

Higher prevalence of depression among male applicators with past pesticide poisoning from different toxins (Beseler et al. 2008).

French study: Farmers who used herbicides nearly twice as likely to have been treated for depression than those who did not (Weisskopf et al. 2013). This study also suggested that chronic exposure to low levels over time may raise the risk of depression.
Feeling Tired and Worn Out
Important Work

...used to sustain and enhance human life

Agriculture: “the cultivation of animals, plants, fungi, and other life forms of food, fiber, biofuel, drugs and other products used to sustain and enhance human life.”


Psychosocial Risk Factors

In Agricultural Roles

- Long working hours
- Isolation
- Financial uncertainty
- Planning Difficulties
- Administrative demands
- Physical stress and strain
From the Research

Loneliness and Isolation

Association between **poor social support** and **increased stress symptoms** (Kallionemi, 2013) **depression** (Booth & Lloyd, 1999) and **suicide** (Malmberg, Simkin & Hayton, 1999) rates for farmers.

**Factors prevalent in remote areas** (e.g. poor local transport, slower pace of life, and limited access to public services) **can increase the feelings of isolation** a farmer feels (European Agency for Safety and Health at Work, 2011) and can make **help seeking** behaviour more difficult (Reese, 2002).

**Long hours** that agriculture workers face can also have a detrimental impact on their work-life balance (Parry, et. al 2005).

Source: https://oshwiki.eu/wiki/Psychosocial_issues_in_the_agriculture_sector/
Behaviours and Attitudes Survey

Irish Association for Counselling and Psychotherapy (2015)

25% of people surveyed in the farming community stated that they had difficulties discussing personal problems (compared to 14% of people in urban areas).
Irish Association for Counselling and Psychotherapy (2015)

Just 5% said they would speak to a counsellor or psychotherapist about their personal problems (compared to the national average of 21% and 13% respectively.)
Working in Isolation

Lack of Social Contact/Context

- Being socially isolated can cause loneliness which can lead to depression/symptoms of depression.
- Without much exposure to being around people (or crowds, large groups), people can develop feelings of anxiety or experience low self-esteem.
Feeling Lonely

Lack of Social Contact/Context

Loneliness is associated with a decrease in physical health (House, 2001; Perissinotto, Stijacic Cenzer, & Covinsky, 2012; Steptoe, Owen, Kunz-Ebrecht, & Brydon, 2004; Tomaka, Thompson, & Palacios, 2006; Wilson et al., 2007) and quality of life (Ekwall, Sivberg, & Hallberg, 2005). Loneliness is also an important predictor of depression (Barg et al., 2006; Cacioppo, Hughes, Waite, Hawkley, & Thisted, 2006; Luanaigh & Lawlor, 2008).

See Link- Early Life Circumstances and Later-Life Loneliness in Ireland
Aches and Pains and Recovery

Feeling Blue and Feeling Bad

Depressed mood increases the risk of concurrent problems associated with pain (Linton, 2000).

Depression can precede pain, in up to 50% of cases the severity of a person’s pain is related to the degree of depression (Rush, Polatin and Gatchel (2000).

High perceived job stress has been consistently associated with upper extremity problems (Bongers et al. 2002).

A significantly higher proportion of individuals with major depressive disorder (MDD) have been found to report disabling chronic pain than those without MDD (41% of those with MDD versus 10% of those without MDD) (Arnow et al. 2006).
Recognise the Symptoms of Stress

Subtle Things...

- Hives /rashes
- Acne flare-ups (surge of stress hormones)
- Inflamed psoriasis and rosacea
- Brittle nails (also increased nail biting, picking at cuticles)
- Hair loss (hair stays in resting phase longer = more hair loss)
- Trichotillomania (urge to pull out hair)
- Twitching eyelids
Depression or Anxiety?

These two can co-exist

**Depression**
- Trouble concentrating
- Trouble remembering
- Trouble making decisions
- Sleep problems
- Loss of interest in work
- Withdrawal from family, friends, co-workers
- Feeling pessimistic, hopeless
- Feeling slowed down
- Fatigue

**Anxiety**
- Feeling apprehensive and tense
- Difficulty managing daily tasks
- Difficulty concentrating

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[Image showing typical symptoms of depression and anxiety]

- **Depression**
  - Frustration
  - Sadness
  - Worthlessness
  - Irritability
  - Loss of interest in normal activities
  - Thoughts of suicide or death
  - Tiredness
  - Disturbance in sleep or appetite

- **Anxiety**
  - Trembling
  - Increased breathing rate
  - Feeling nervous or powerless
  - Having a sense of impending danger or panic
  - High Heart rate
  - Sweating

[Link to Anxiety.org]
Talk to Your GP, or Someone You Trust, Contact a Helpline, Try Online Counselling
Stress Doesn’t Always Look Stressful

Psychologist Connie Lillas uses a driving analogy to describe the three common ways people respond when overwhelmed by stress:

• **Foot on the gas**: An angry, agitated or “fight” stress response. You’re heated, keyed up, overly emotional, and unable to sit still.

• **Foot on the brake**: A withdrawn, depressed or “flight” stress response. You shut down, pull away, space out, and show very little energy or emotion.

• **Foot on both**: A tense or “freeze” stress response. You become frozen under pressure and can’t do anything. You look paralysed but under the surface you’re extremely agitated.
Be Aware of Other Things Going On

Raised **inflammatory markers** in depression (Glassman & Miller, 2007).

**Work overload** linked to **high cholesterol** (Melamed, Shirom, Toker, & Shapira, 2006).

Burnout associated with poor health including **hypertension, alcoholism, myocardial infarction** (Shanafelt et al. 2006; Väänänen et al. 2008, Alves et al. 2009), **cardiovascular, musculoskeletal, skin, and allergic diseases** including **somatic co-morbiditiy** (which increases with burnout).

Burnout is associated with **musculoskeletal diseases among women** and with **cardiovascular diseases among men** (Honkonen, et al; 2006).

**Emotional exhaustion** is considered to be the most important dimension of burnout syndrome (Roelofs et al. 2005).
“Burnout: State of vital exhaustion.”

Category Z73, under: “Problems related to life management and difficulty.”
## Underlying Health Problems/Endocrine Disease?

**Talk to Your GP**

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal Pain</td>
<td>Addisonian crisis; diabetic ketoacidosis; hyperparathyroidism</td>
</tr>
<tr>
<td>Amenorrhea or Oligomenorrhea</td>
<td>Adrenal insufficiency, adrenogenital syndrome, anorexia nervosa, Cushing’s syndrome, hyperprolactinemic states, hypopituitarism, hypothyroidism, menopause, ovarian failure, polycystic ovaries, pseudohermaphroditic syndromes</td>
</tr>
<tr>
<td>Anemia</td>
<td>Adrenal insufficiency, gonadal insufficiency, hypothyroidism, hyperparathyroidism, panhypopituitarism</td>
</tr>
<tr>
<td>Anorexia</td>
<td>Addison’s disease, diabetic ketoacidosis, hypercalcemia (e.g. hyperparathyroidism), hypothyroidism</td>
</tr>
<tr>
<td>Constipation</td>
<td>Diabetic neuropathy, hypercalcemia, hypothyroidism, pheochromocytoma</td>
</tr>
<tr>
<td>Depression</td>
<td>Adrenal insufficiency, Cushing’s Syndrome, hypercalcemic states, hypoglycemia, hypothyroidism</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>Hyperthyroidism, metastatic carcinoid tumors, metastatic medullary thyroid carcinoma</td>
</tr>
<tr>
<td>Fever</td>
<td>Adrenal insufficiency, hyperthyroidism (severe: thyroid storm), hypothalamic disease</td>
</tr>
<tr>
<td>Hair changes</td>
<td>Decreased body hair (hypothyroidism, hypopituitarism, thyrotoxicosis); hirsuitism (androgen excess states, Cushing’s Syndrome, acromegaly)</td>
</tr>
<tr>
<td>Headache</td>
<td>Hypertensive episodes with pheochromocytoma, hypoglycemia, pituitary tumors</td>
</tr>
</tbody>
</table>

Adapted from *Basic & Clinical Endocrinology*, (Gardner & Shoback, 2007).
## Underlying Health Problems/Endocrine Disease?

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<table>
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<th>Symptoms</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Hypothermia</strong></td>
<td>Hypoglycemia, hypothyroidism</td>
</tr>
<tr>
<td><strong>Libido changes</strong></td>
<td>Adrenal insufficiency, Cushing’s syndrome, hypercalcemia, hyperprolactinemia, hyperthyroidism, hypokalemia, hypopituitarism, hypothyroidism, poorly controlled diabetes mellitus</td>
</tr>
<tr>
<td><strong>Nervousness</strong></td>
<td>Cushing’s syndrome, hyperthyroidism</td>
</tr>
<tr>
<td><strong>Polyuria</strong></td>
<td>Diabetes insipidus, diabetes mellitus, hypercalcemia, hypokalemia</td>
</tr>
<tr>
<td><strong>Skin changes</strong></td>
<td>Acanthosis nigricans (obesity, polycystic ovaries, severe insulin resistance), Cushing’s syndrome, acromegaly, acne (androgen excess), hyperpigmentation (adrenal insufficiency, Nelson’s syndrome), hypothyroidism, hypopigmentation (panhypopituitarism), striae, plethora, bruising, ecchymoses (Cushing’s syndrome), vitiligo (autoimmune thyroid disease, Addison’s disease)</td>
</tr>
<tr>
<td><strong>Weakness and fatigue</strong></td>
<td>Addison’s disease, Cushing’s syndrome, diabetes mellitus, hypokalemia (e.g. primary aldosteronism, Bartter’s syndrome), hypothyroidism, hyperthyroidism, hypercalcemia (e.g. hyperparathyroidism, panhypopituitarism, pheochromocytoma)</td>
</tr>
<tr>
<td><strong>Weight gain</strong></td>
<td>Central nervous system disease, Cushing’s syndrome, hypothyroidism, insulinoma, pituitary tumors</td>
</tr>
<tr>
<td><strong>Weight loss</strong></td>
<td>Adrenal insufficiency, anorexia nervosa, cancer of endocrine glands, hyperthyroidism, type 1 diabetes mellitus, panhypopituitarism, pheochromocytoma</td>
</tr>
</tbody>
</table>

Adapted from *Basic & Clinical Endocrinology*, (Gardner & Shoback, 2007).
Simple Things to Do
What You Put In Has an Impact

Too much of these things trigger and aggravate stress

- Tea, coffee, cocoa, energy drinks
- Fast food and takeaways
- Processed foods (high in sodium, fat and artificial additives)
- Sugar: Candy and sweets
- Alcohol
- Soda, soft drinks
Supplements that Fight Stress

- Magnesium: Relaxes the body, eases anxiety
- Melatonin: Helps with sleep (often combined with magnesium)
- Valerian root: Sleep maintenance
- B6: Headaches
- B2: Headache prevention
- Omega-3 Oils: Anti-inflammatory
- Theanine: Green and black tea- Anger
- Ginseng: Stress
Make Time to Rest and Recover (or Symptoms Will Get Worse)

Whether at home or work, your body can’t distinguish between similar movements. The bucket model illustrates that activity, whether at work or home, falls into the same container. Increasing the amount of activity at either location will increase the bucket’s contents.

If you don’t provide enough time for recovery, you may start to experience discomfort. If the activity level continues without sufficient rest, pain and then injury may occur.
The biopsychosocial model of disease

My long-term health conditions are biological in origin, but the impact has been felt physically, psychologically and socially. My long-term health condition can’t be treated just through the biological medical model alone.

“The medical support keeps me **alive**, but it is the psychological and social support that enables me to **live.**”

©The Patient Patient, 2013
www.thepatientpatient2011.blogspot.co.uk
Your Health is Your Wealth

"You must take personal responsibility. You cannot change the circumstances, the seasons, or the wind, but you can change yourself. That is something you have charge of."
- Jim Rohn -

- Your health is your personal responsibility
- Get help or feel worse
“Health is not merely the absence of disease but a positive state of physical, mental and social well-being” (WHO, 1986), a healthy working environment is one in which there is not only the absence of harmful conditions but also the presence of health-promoting actions.
Resources
Get Help

- **Mind Our Farm Families** is a dedicated suicide and self-harm phone line 1890 130 022 between IFA and Pieta House. The phone line for IFA members will put farmers and their families in direct contact with a Pieta House trained therapist.

- **YourMentalHealth.ie** is a place to learn about mental health and how to support yourself and the people you love. You can find support services near you, and learn about the #littlethings that can make a big difference to how we all feel. Brought to you by the HSE, the National Office for Suicide Prevention and partner organisations across the country.
Get Help

- **Console**: 1-800-247-247 (7 days, 24 hours)  
  Suicide prevention and bereavement service

- **Farm and Rural Stress Helpline**: 1-800-742-645  
  (7 days, 24 hours) operated by Console. Provides support to farmers going through a tough time or feeling down.

- **Senior Helpline**: Confidential helpline for older people provided by older volunteers
Get Help

• **Samaritans: Free Call:** 116-123 (7 days, 24 hours)- phone support

• **LGBT Helpline:** Non-judgmental support and information to lesbian, gay, bisexual and transgender people and the friends and families. 1 890 929 539 (6.30pm to 9pm Mon - Thu, 4pm to 9pm Fri 4pm to 6pm on Sat & Sun).

• **IOSH Occupational Hazards**
  http://www.iosh.co.uk/Books-and-resources/Our-OH-toolkit.aspx
Assess Yourself Online

**Maslach Burnout Inventory (MBI):** 22-25 items, 3 scales:

- **Emotional Exhaustion** (9 items)
- **Depersonalisation** (5 items)
- **Personal Accomplishment** (8 items)

**Tedium Measure (the Burnout Measure)**

- Physical, emotional and mental exhaustion

**Holmes-Rahe Stress Scale**

Most popular stress measure- looks at most common life stressors
Chemicals

Pesticide Use By Farmers Linked to High Rates of Depression, Suicides

Pesticide Exposure and Depression Among Male Private Pesticide Applicators in the Agricultural Health Study (2014) USA

Mental Wellness Concerns

_Agriland Ireland: Farmers Don’t Talk About Stress Much (But it Doesn’t Mean It’s Not There)_

Health and safety practices among farmers and other workers: a needs assessment

_Early Life Circumstances and Later-Life Loneliness in Ireland_

_IACP: Rural Communities Must Avoid Isolation_

_Farming Poll: One in five rural people have experience of depression_
Bibliography


Thank You For Your Time!