



## AGRICULTURAL WORKERS AND MENTAL HEALTH

Mental health is an important component of an individual's overall health. Poor mental health affects an individual's productivity, their hobbies and motivations, their ability to handle life challenges, and their overall contentment and ability to enjoy life. Poor mental health may be especially difficult to identify, treat, and overcome among agricultural workers, who face multiple challenges including language barriers, poor access to health insurance, and high rates of poverty. The following is a collection of recent facts and figures pertaining to the mental health of agricultural workers. The last section of the factsheet includes recommendations and advice for healthcare and service providers who work with this population.

### Overview

- The primary categories of mental health disorders are classified as adult disorders, childhood disorders, and personality disorders.<sup>1</sup>
- Anxiety disorders are the most commonly occurring as they affect 18% of the general U.S. adult population.<sup>2</sup> They include the following:
  - Generalized anxiety disorder
  - Post-traumatic stress disorder
  - Panic disorder
  - Obsessive-compulsive disorder
  - Social phobia
  - Simple phobias<sup>3</sup>
- There are many factors that contribute to an individual's mental health. According to the University of Maryland Medical Center, genes, biochemistry, social environment, history, and psychological profile all contribute to anxiety disorders.<sup>4</sup>
- Each disorder is accompanied by specific symptoms, but in general, warning signs and symptoms of a mental health disorder can include social withdrawal, an inability to handle daily activities, changes in sleep and appetite, excessive worrying or fear, difficulty relating to people, and rapid shifts in feelings such as mood swings.<sup>5</sup>
- There are also traditional Mexican folk illnesses that are important to the understanding of how mental health and mental health disorders are perceived among many members of this population. For example, *susto* is a condition that can include several symptoms including disturbed sleep, depression, gastro-intestinal issues, and listlessness that are brought on by a sudden frightful event.<sup>6</sup> *Nervios* is a set of symptoms that can include worry, jumpiness, irritability, depression, agitation, and nervousness.<sup>7</sup>

- One report on a study of agricultural workers along the U.S.-Mexico border found that 41 percent of participants reported *nervios*, 37 percent reported depression and 17 percent reported *latidos* (or heart palpitations), which were attributed to anxiety.<sup>8</sup>

### **Mental Health Disorders Among Agricultural Workers**

- A study of 248 female adult agricultural workers in North Carolina found that nearly a third (31%) of participants had significant symptoms of depression, significantly greater than the rate of depression among U.S. Hispanic females (11%).<sup>9</sup>
- Among male agricultural workers in California, 22% were found to have symptoms of *nervios*, which is a condition of stress in many Hispanic cultures.<sup>10</sup>
- A study conducted in North Carolina found a positive correlation between levels of daytime sleepiness and levels of depressive symptoms among agricultural workers.<sup>11</sup> Of the 300 agricultural workers surveyed, 28 percent reported having elevated levels of depressive symptoms. The study also found that excessive daytime sleepiness and depressive symptoms increased with increasing age. These statistics are especially problematic and dangerous since agricultural work requires dangerous machinery and tools, toxic pesticides, and transferring heavy loads.
- A third (33%) of agricultural workers in Yuma County, Arizona reported experiencing one or more days of poor mental health in the past month, and 31% reported one or more days of poor physical health in the past month.<sup>12</sup>
- Research conducted with nearly 400 agricultural workers in North Carolina found that 50% were at risk for alcohol misuse, 17% had substantial depressive symptoms, and 9% had substantial anxiety.<sup>13</sup>
- According to the 2009-2010 National Agricultural Workers Survey, 9% of agricultural workers experienced elevated depressive symptoms.<sup>14</sup>

### **Mental Health Risk Factors**

- There are several underlying factors that contribute to the poor mental health of agricultural workers, but numerous research studies have found that economic hardship and poverty are driving factors.<sup>9,12,14</sup> Other contributing factors are associated with the nature of agricultural work, such as frequent mobility, long work hours, and limited or nonexistent benefits.
- Agricultural worker women who experienced low food security or economic hardship had a higher prevalence of symptoms of depression as compared to those who did not. Women with marginal, low or very low food security were 2.3 times more likely to report depressive symptoms. Documentation status, education level, and household size were not associated with depressive symptoms.<sup>9</sup>
- Low household incomes and poor housing conditions were associated with higher symptoms of *nervios* among male agricultural workers. Other factors that were associated with *nervios* were use of illegal substances, higher acculturation levels, and a high perceived level of stress.<sup>10</sup>

- In Arizona, age, sex, and perceived level of stress were found to be associated with more reported days of poor mental health among agricultural workers. Women and older workers experienced more days of poor mental health than men or younger workers.<sup>12</sup>
- Among male agricultural workers, experiencing an occupational injury was a significant risk factor for experiencing depression. Among 200 agricultural workers in Nebraska, men who had experienced an occupational injury were seven times more likely to be depressed.<sup>15</sup>
- Nationwide, agricultural workers who report having low control in their jobs and a high psychological demand at work are more likely to experience depressive symptoms.<sup>8</sup>
- Poor housing conditions, such as overcrowding and a lack of a secure storage space for personal belongings were associated with higher rates of depression and anxiety among agricultural workers in North Carolina.<sup>13</sup>
- One study published in 2008 reported on which determinants inherit to farm work and the agricultural worker lifestyle resulted in poor mental health by using signs of anxiety and depression as measures.<sup>16</sup> The following conclusions were observed:
  - Five domains of stress were noted: legality and logistics, social isolation, work conditions, family and substance abuse by others,
  - Social isolation was the strongest contributor to anxiety, and
  - Stressful working conditions had the strongest effect on depression.
- A qualitative study published in 2008 examined the factors that contribute to depression among 38 adult Mexican immigrant men.<sup>17</sup> This is a good proxy for the population as a 2009 national update on agricultural workers by the Department of Labor found that 68% of agricultural workers were born in Mexico.<sup>18</sup> When interviewed for the causes of depression, the following responses, all related to the immigrant experience, were noted:
  - Separation from loved ones and/or family,
  - Discrimination and harassment in the community
  - Long hours and multiple jobs,
  - Not having a job or receiving bad pay,
  - Social isolation, and
  - A change in drug or alcohol use.<sup>17</sup>
  - As far as remedies for depression, the men reported the following:
    - Drinking and taking drugs to reduce symptoms,
    - Seeking professional help, without the use of medications,
    - Increased and encouraged community socializing, and
    - Reuniting with family.<sup>17</sup>
- A National Agricultural Worker's Study report presented that in 2009, 68 percent of agricultural workers were born in Mexico and that 15 percent are either indigenous Mexicans or Central Americans.<sup>18</sup> Another study found that in some regions of California, as much as 46 percent of agricultural workers were indigenous Mexicans.<sup>19</sup> This is important as there are implications to those cultural/linguistic differences between indigenous and non-indigenous (or *mestizo*) Mexican agricultural workers. For example, depressive syndromes are more prevalent among indigenous Mexican agricultural workers than those who are non-indigenous and Spanish literacy contributed to a

decreased likelihood in having a depressive syndrome.<sup>20</sup>

- Although poor mental health is regarded as a stigma, it seems to be especially apparent within the Latino culture. Latina women, for example, are more likely than White or Black women to endorse feeling embarrassed about discussing personal issues, fearing what others may think, or believing family members may think they are crazy.<sup>21</sup>

### **Substance Abuse**

- Migration from Mexico to the United States has been linked to substance use and abuse. One research study interviewed 5,826 individuals in Mexico.<sup>22</sup> Respondents who migrated to the United States or who had family who migrated to the United States were more likely to:
  - Use alcohol, marijuana, cocaine, and other illicit drugs at least once in their lifetime;
  - Develop a substance use disorder; and
  - Have a current (within the last 12 months) substance use disorder
- One study conducted in North Carolina that interviewed 125 male migrant agricultural workers reported that 39% may be alcohol dependent.<sup>23</sup>
- Alcohol use among male agricultural workers has been found to vary widely. In North Carolina, 18% of male workers had never consumed alcohol and 35% had not consumed alcohol in the past three months, but nearly half (49%) had engaged in heavy episodic drinking at some point in the past three months and 24% did so regularly. Agricultural workers were found to be at greater risk for alcohol dependence compared to other non-agricultural worker immigrants.<sup>24</sup>
- A study conducted among agricultural workers concluded that the frequency of substance abuse, in this case crack-cocaine, alcohol and marijuana, was not necessarily tied to ethnicity but rather related to the type of crop work that the worker conducted as some crop's work and harvest is much more stressful and demanding than others.<sup>25</sup>

### **Recommendations for Healthcare or Service Providers**

- A study which gathered the input of 15 researchers who each have a background in the research of treatment and services for the Hispanic population published that Latinos/Hispanics are discouraged from seeking mental health treatment due to the cultural insensitivity, stereotyping, and unacknowledged racism they have experienced with health care providers in the past.<sup>26</sup>
- The use of participatory research methods and community health workers who are representative of the community have been found to be useful in improving access to mental and behavioral health care services.<sup>27,28</sup>
- Studies have found that there are traditional values in the Latino culture that contribute to the under-use of mental health services. Some of these values include respect, familism and faith which are built around the premise of courtesy, reliance on family members as opposed to those who are non-family, and an emphasis on family goals as opposed to those of an individual.<sup>27,29</sup> Fatalism is another important component in Latino culture, and it is the idea that problems such as those related to health are beyond an individual's control.<sup>29</sup>

- It is important for health or other service providers to be knowledgeable on how elements that are intrinsic to the population such as folk illness,<sup>21</sup> traditional cultural values,<sup>29</sup> and the immigrant experience<sup>17</sup> contribute to agricultural workers' poor mental health and work against treatment-seeking behavior.
- One report concluded that identifying the different factors that contribute to agricultural worker stress can aid in the designing of programs and practices that help manage or even prevent those mental health issues that plague this population.<sup>16</sup> One idea is to organize a social network within the agricultural worker community that will support an interactive and positive outlet such as a sporting event.<sup>21</sup>

## REFERENCES

1. Grohol, J. Mental Disorders & Conditions - DSM. (2017). Available at: <https://psychcentral.com/disorders/>. (Accessed: 7th December 2017)
2. National Institutes of Mental Health. Any Anxiety Disorder Among Adults. Available at: <https://www.nimh.nih.gov/health/statistics/prevalence/any-anxiety-disorder-among-adults.shtml>. (Accessed: 7th December 2017)
3. Grohol, J. M. Anxiety Disorders - Types & Symptoms. *Psych Central* (2016). Available at: <https://psychcentral.com/disorders/anxiety/>. (Accessed: 7th December 2017)
4. Anxiety disorders. *University of Maryland Medical Center* Available at: <https://www.umm.edu/health/medical/reports/articles/anxiety-disorders>. (Accessed: 7th December 2017)
5. National Alliance on Mental Illness. Know the Warning Signs. Available at: <https://www.nami.org/Learn-More/Know-the-Warning-Signs>. (Accessed: 7th December 2017)
6. Rubel, A. J., O'neil, C. W. & Collado, R. The Folk Illness Called Susto. in *The Culture-Bound Syndromes* 333–350 (Springer, Dordrecht, 1985). doi:10.1007/978-94-009-5251-5\_31 Available at: [https://link.springer.com/chapter/10.1007/978-94-009-5251-5\\_31](https://link.springer.com/chapter/10.1007/978-94-009-5251-5_31)
7. Baer, R. D. *et al.* A cross-cultural approach to the study of the folk illness nervios. *Cult Med Psychiatry* **27**, 315–337 (2003). Available at: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.465.5145&rep=rep1&type=pdf>
8. Weigel, M. M., Armijos, R. X., Hall, Y. P., Ramirez, Y. & Orozco, R. The household food insecurity and health outcomes of U.S.-Mexico border migrant and seasonal farmworkers. *J Immigr Minor Health* **9**, 157–169 (2007). Available at: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.465.7047&rep=rep1&type=pdf>
9. Pulgar, C. A. *et al.* Economic Hardship and Depression Among Women in Latino Farmworker Families. *J Immigrant Minority Health* **18**, 497–504 (2016). Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4663186/>
10. O'Connor, K., Stoecklin-Marois, M. & Schenker, M. B. Examining Nervios Among Immigrant Male Farmworkers in the MICASA Study: Sociodemographics, Housing Conditions and Psychosocial Factors. *J Immigrant Minority Health* **17**, 198–207 (2015). Available at: <http://europepmc.org/abstract/med/23784145>
11. Sandberg, J. C. *et al.* A cross-sectional exploration of excessive daytime sleepiness, depression, and musculoskeletal pain among migrant farmworkers. *J Agromedicine* **17**, 70–80 (2012). Available at: <https://www.ncbi.nlm.nih.gov/pubmed/22191505/>
12. Carvajal, S. C. *et al.* Stress and Sociocultural Factors Related to Health Status Among US–Mexico Border Farmworkers. *J Immigrant Minority Health* **16**, 1176–1182 (2014). Available at: <https://arizona.pure.elsevier.com/en/publications/stress-and-sociocultural-factors-related-to-health-status-among-u>
13. Mora, D. C., Quandt, S. A., Chen, H. & Arcury, T. A. Associations of Poor Housing with Mental Health Among North Carolina Latino Migrant Farmworkers. *Journal of Agromedicine* **21**, 327–334 (2016). Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27409300>
14. Grzywacz, J. G. *et al.* Job Control, Psychological Demand, and Farmworker Health: Evidence From the National Agricultural Workers Survey. *Journal of Occupational and Environmental Medicine* **56**, 66–71 (2014). Available at: <http://journals.sagepub.com/doi/abs/10.1177/1048291115601053>
15. Ramos, A. K., Carlo, G., Grant, K., Trinidad, N. & Correa, A. Stress, Depression, and Occupational Injury among Migrant Farmworkers in Nebraska. *Safety* **2**, 23 (2016). Available at: <file:///C:/Users/favre/Downloads/safety-02-00023.pdf>

16. Hiott, A. E., Grzywacz, J. G., Davis, S. W., Quandt, S. A. & Arcury, T. A. Migrant farmworker stress: mental health implications. *J Rural Health* **24**, 32–39 (2008). Available at: <https://www.ncbi.nlm.nih.gov/pubmed/18257868>
17. Lackey, G. F. ‘Feeling blue’ in Spanish: A qualitative inquiry of depression among Mexican immigrants. *Social Science & Medicine* **67**, 228–237 (2008). Available at: [http://www.centerfortraditionalmedicine.org/uploads/2/3/7/5/23750643/qual-study\\_depression-mex.pdf](http://www.centerfortraditionalmedicine.org/uploads/2/3/7/5/23750643/qual-study_depression-mex.pdf)
18. Carroll, D. Changing characteristics of U.S. farmworkers. Available at: <https://migrationfiles.ucdavis.edu/uploads/cf/files/2011-may/carroll-changing-characteristics.pdf>. (Accessed: 23rd October 2017)
19. Mines, R., Nichols, S. & Runsten, D. California’s Indigenous Farmworkers. (2010). Available at: <http://www.indigenousfarmworkers.org/IFS%20Full%20Report%20Jan2010.pdf>. (Accessed: 7th December 2017)
20. Donlan, W. & Lee, J. Indigenous and Mestizo Mexican Migrant Farmworkers: A Comparative Mental Health Analysis. *Journal of Rural Community Psychology* (2010). Available at: [https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1082&context=socwork\\_fac](https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1082&context=socwork_fac)
21. Grzywacz, J. G. Mental Health Among Farmworkers in the Eastern United States. in *Latino Farmworkers in the Eastern United States* 153–172 (Springer, New York, NY, 2009). doi:10.1007/978-0-387-88347-2\_7 Available at: [https://link.springer.com/chapter/10.1007/978-0-387-88347-2\\_7](https://link.springer.com/chapter/10.1007/978-0-387-88347-2_7)
22. Borges, G., Medina-Mora, M. E., Breslau, J. & Aguilar-Gaxiola, S. The Effect of Migration to the United States on Substance Use Disorders Among Returned Mexican Migrants and Families of Migrants. *Am J Public Health* **97**, 1847–1851 (2007). Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1994169/>
23. Grzywacz, J. G., Quandt, S. A., Isom, S. & Arcury, T. A. Alcohol use among immigrant Latino farmworkers in North Carolina. *Am. J. Ind. Med.* **50**, 617–625 (2007). Available at: <http://onlinelibrary.wiley.com/doi/10.1002/ajim.20482/abstract>
24. Arcury, T. A. *et al.* Alcohol Consumption and Risk for Dependence among Male Latino Migrant Farmworkers Compared to Latino Non-Farmworkers in North Carolina. *Alcohol Clin Exp Res* **40**, 377–384 (2016). Available at: <https://www.ncbi.nlm.nih.gov/pubmed/26842256>
25. Bletzer, K. & Weatherby, N. Variation in Drug and Alcohol Use among Agricultural Laborers: Watermelon Men in the Rural South. *Human Organization* **68**, 115–128 (2009). Available at: <http://sfaajournals.net/doi/abs/10.17730/humo.68.2.5242u11584773515>
26. Vega, W. A. *et al.* Research issues for improving treatment of U.S. Hispanics with persistent mental disorders. *Psychiatr Serv* **58**, 385–394 (2007). Available at: <https://ps.psychiatryonline.org/doi/full/10.1176/ps.2007.58.3.385?code=ps-site>
27. Ingram, M., Schachter, K. A., Guernsey de Zapien, J., Herman, P. M. & Carvajal, S. C. Using participatory methods to enhance patient-centred mental health care in a federally qualified community health center serving a Mexican American farmworker community. *Health Expect* **18**, 3007–3018 (2015). Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25306904>
28. Ingram, M., Murrietta, L., de Zapien, J. G., Herman, P. M. & Carvajal, S. C. Community health workers as focus group facilitators: A participatory action research method to improve behavioral health services for farmworkers in a primary care setting. *Action Research* **13**, 48–64 (2015). Available at: <http://journals.sagepub.com/doi/abs/10.1177/1476750314565913>
29. Schmaling, K. B. & Hernandez, D. V. Problem-solving treatment for depression among Mexican Americans in primary care. *J Health Care Poor Underserved* **19**, 466–477 (2008). Available at: <https://pdfs.semanticscholar.org/f422/a64a084f31731158dc3b2dec6c6c72e33194.pdf>