MICHIGAN STATE UNIVERSITY College of Nursing

Improving Depression Screening and follow-up in the Primary Care Setting

Kara Schrader, DNP, FNP-C
Family Nurse Practitioner MSU HealthTeam
Michigan State University College of Nursing

MICHIGAN STATE UNIVERSITY College of Nursing

Objectives

- Update the epidemiology of depression within the US
- Awareness of the importance of recognizing depressive disorders and early initiation of treatment
- Review methods of screening and barriers to screening within a primary care clinic
- Discuss evidenced based methods for depression care workflow within the primary care clinic
- Offer options for improving access to behavioral health providers and collaboration

MICHIGAN STATE UNIVERSITY College of Nursing

Major Depressive Disorder (MDD)

- Depression is the leading cause of disability worldwide (WHO, 2015)
- Familial and societal burdens associated with under recognized and/or undertreated depression (Substance Abuse and Mental Health Services Administration [SAMHSA] , 2013)
  - Decrease in work productivity
  - Substance abuse
  - Disability
  - Unemployment
  - Suicide

MICHIGAN STATE UNIVERSITY College of Nursing

Major Depressive Disorder (MDD)

- Increasing financial burden of depression in the United States (US):
  - $173.2 billion in 2005 to $210.5 billion in 2010 (Atkinson, et al., 2013; Greenberg, Sisitsky, Crystal, & Kessler, 2015)

FOR EVERY $1 IN TREATMENT FOR ANXIETY AND DEPRESSION RETURN ON INVESTMENT IS $4

(Chisholm, et al., 2016)

MICHIGAN STATE UNIVERSITY College of Nursing

Major Depressive Disorder (MDD)

- 6.6% of adult population with episode MDD in past 12 months though only 1/3 obtain treatment (Substance Abuse and Mental Health Services, 2015)
- Due to stigma, short appointment times or cultural assumptions, feeling depressed not often shared or apparent (Conner, et al., 2010; Coventry et al., 2011)
- Can present with different symptoms
- Often co-exists with anxiety
- Early and appropriate treatment improves symptoms and can prevent adverse outcomes (Substance Abuse and Mental Health Services, 2015)
- Associated with increased morbidity with many co-existing chronic illnesses

MICHIGAN STATE UNIVERSITY College of Nursing

Depression and Chronic Illness

- Cardiovascular Disease
  - Higher mortality rates with co-morbid depression (Leung et al., 2012; Saint Onge, Krueger & Rogers, 2014)
  - Depression independent predictor of poorer outcomes in coronary heart disease (Leung et al., 2012)
- Chronic Pain
  - Increased opioid misuse (Dobbs, Sullivan, Saunders, Campbell, & Von Korff, 2012)
  - Increased opioid tolerance, poorer pain control (Wasan et al. 2015)
  - More likely to have prescription written for opioids (Kapoor & Thorn, 2014)

MICHIGAN STATE UNIVERSITY College of Nursing

Depression and Chronic Illness

- COPD
  - 59-65% higher risk of depression (Atlantis, Fahey, Cochran & Smith, 2013)
  - Depression increases mortality risk by 83% (Atlantis, Fahey, Cochran & Smith, 2013)
- Dementia
  - 87-92% increased risk with history depression
  - Two or more episodes doubles risk (Dotson, Beydoun, & Zonderman, 2010)
- Diabetes
  - Multiple studies showing association with higher rates of depression (Green, Basata, Fox & Grandy, 2012; Nouwen et al., 2010)

MICHIGAN STATE UNIVERSITY College of Nursing

Major Depressive Disorder (MDD)

- Criteria #1:
  - 5 or more of the following symptoms nearly every day in the same 2 ***weeks-depressed mood* or *loss of interest or pleasure* must be one of the 5 symptoms:**
  - Depressed mood most of the day *
  - Decreased interest in pleasure or interest in the normal activities of one's life *
  - Weight loss or weight gain or change in appetite
  - Insomnia or Hypersomnia
  - Psychomotor agitation or retardation (restless or moving slowly)
  - Fatigue or loss of energy
  - Feelings of worthlessness or excessive guilt
  - Decrease ability to concentrate
  - Recurrent thoughts of death, recurrent suicidal ideation with or without plan
- Criteria #2: The symptoms cause significant distress or impairment
- Criteria #3: Cannot be caused from the effects of a substance, or medical condition

American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition. Arlington, VA, American Psychiatric Association, 2013.

MICHIGAN STATE UNIVERSITY College of Nursing

Screening recommendations

Screening for depression recommended by:

- The United States Preventative Services Task Force [USPSTF] (USPSTF, 2016)
- American Association of Family Physicians [AAFP] (AAFP, 2016)
- American Diabetes Association [ADA] (ADA, 2017)
- Institute for Clinical Systems Improvement [ICSI] (ICSI, 2016)

All recommendations: screen only if system in place for follow-up of positive screens

MICHIGAN STATE UNIVERSITY College of Nursing

Primary care role in assessment and management of depression

- Institute of Medicine's definition of primary care:
  - "Primary care is responsible for the majority of personal health care needs, which include physical, mental, emotional, and social concerns" (Donaldson, Yordy, Lohr, & Vanselow, 1996, p. 3)

National Science of Engineering and Medicine

MICHIGAN STATE UNIVERSITY College of Nursing

Depression screening in primary care settings

- Primary care providers:
  - Have the more opportunities for contact
  - Typically have built trust
  - Have ability to assess for associated social determinants
  - Linkage to early and effective treatment

MICHIGAN STATE UNIVERSITY College of Nursing

Depression screening in primary care settings

Depression and anxiety most often managed in the primary care setting (Beck et al., 2011; SAMHSA, 2013)

- Primary care providers have ability to diagnose depression though often miss it (Mitchell, MJ, Vaze, A., Rao, S., 2009)
- 2012-2013: 4.2% adults screened (Ackincigil & Matthews, 2017)
  - Under recognized in older adults, young men and low income minorities (Ackincigil & Matthews, 2017; Pfoh et al., 2015; Akincigil, et al. 2012; Mojtabai, 2011), et al., 2012)

MICHIGAN STATE UNIVERSITY College of Nursing

Depression screening in primary care settings

- Merit Based Incentive Payment System (MIPS) 2017
  - Formally PQRS
  - Depression care with measurements
    - Coordination of care for adults with MDD and specific co-morbid conditions+
    - Suicide Risk Assessment for adults and children/adolescents+ with MDD
    - Anti-depressant medication management in adults
    - Consumer Assessment of Healthcare Providers and Systems group survey: communication and access to specialists +
    - Depression remission at six months (PHQ-9 <5) +, *
    - Depression remission at six months (PHQ-9 <5) Depression remission at twelve months (PHQ-9 <5) +, *
    - Utilization of PHQ-9 tool for adults with diagnosis of depression/dysthymia during 4 month period
    - Screening for clinical depression and documented follow-up plan (ages 12 and older)

+high priority item
*with screening score >9

MICHIGAN STATE UNIVERSITY College of Nursing

Depression screening in primary care settings

- Reasons stated for not screening
  - Providers often assume that they know their patients well enough to recognize depression
  - No workflow in clinic to screen
  - Time involved to screen
  - Increasing complexity of patients being seen
  - Comfort of provider
  - No universal reimbursement
  - Inability to follow-up due to overbooked schedules
  - Limited access or knowledge of available behavioral health services (Alson, et al. 2016; Mitchell, Vaze,& Rao, 2009)

MICHIGAN STATE UNIVERSITY College of Nursing

Barriers to adequate depression care in primary care

- Treatment to goal measures low
  - Provider discomfort with management or understanding of treatment guidelines
  - Less aggressive treatment when other chronic conditions present (Gill, Chen, & Lieberman, 2008)
- Inadequate time to follow-up a + depression diagnosis
  - Decreased adherence to treatment (Tamblyn, et al., 2014; Warden, et al, 2014)
- Over-utilization of medications (Rhee et al, 2016)
- Financial non-sustainability for care management assistance or collaborative care
- Care management services prioritized for other chronic illnesses and population health measures

MICHIGAN STATE UNIVERSITY College of Nursing

Limitations of referral to behavioral health services

- Behavioral health (BH) provider access limited
- Carve out system
- Lack of workflow for initial referral to BH
- Psychiatry provider shortage
- Process of follow-up on referrals to BH services not given same priority as other specialties (Kessler, et al. 2014)
- Lack of knowledge of community BH resources (Kravitz, et al., 2005)

MICHIGAN STATE UNIVERSITY College of Nursing

National shortage of psychiatry providers

- Few accept publicly funded insurances (Kaiser Commission on Medicaid and and the Uninsured, 2013)
- Low reimbursement rates from state Medicaid programs (National Council for Behavioral Health, 2017)
- 40% of the nation's psychiatry workforce practice only in "cash-only" private practice (National Council for Behavioral Health, 2017)
- Psychiatry providers do not have the resources or training to deal with the multiple social determinants that are associated with severe depression and anxiety in the Medicaid population (National Council for Behavioral Health, 2017)
- 77% of US counties are considered underserved in regards to psychiatry (National Council for Behavioral Health, 2017)
- 55% states are considered to have a serious shortage of psychiatry providers that specialize in child and adolescent psychiatry (National Council for Behavioral Health, 2017)
- The majority of primary care providers report difficulty in obtaining psychiatric care access (Cunningham, 2009)

MICHIGAN STATE UNIVERSITY College of Nursing

Screening Tools

- Patient Health Questionnaire 9 (PHQ-9)
  - Nine questions
  - Assesses severity of depression
  - A score of 9 or greater specificity 85%, sensitivity 95% for depression (Kroenke et al., 2001)
  - Available in most EHRs
- PHQ-2
  - Adapted from PHQ-9
  - Two questions
  - Cut off score of 3 or greater 90% specific, 89% sensitive for depression
  - Score greater than 3 requires screen with PHQ-9 (Kroenke, Spitzer & Williams, 2003)

MICHIGAN STATE UNIVERSITY College of Nursing

PATIENT HEALTH QUESTIONNAIRE-9 (PHQ-9)

Over the last 2 weeks, how often have you been bothered by any of the following problems? (Use ✔ to indicate your answer)	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

FOR OFFICE CODING: 0 + _____ + _____ + _____ =Total Score: _____

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all ☐ | Somewhat difficult ☐ | Very difficult ☐ | Extremely difficult ☐

Developed by Drs. R.L. Spitzer, J.B. Williams, K. Kroenke and colleagues with an educational grant from Pfizer, Inc. No permission required to reproduce, translate, display or distribute.

MICHIGAN STATE UNIVERSITY College of Nursing

Both PHQ-2 and PHQ-9 free and easy to use, efficient and have appropriate validity to use for screening in primary care (Narayana & Wong, 2014)

Patient Health Questionnaire-2 (PHQ-2)

Instructions:
Please respond to each question.

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Give answers as 0 to 3, using this scale:
0=Not at all; 1=Several days; 2=More than half the days; 3=Nearly every day

1. **Little interest or pleasure in doing things**
   ☐0 ☐1 ☐2 ☐3
2. **Feeling down, depressed, or hopeless**
   ☐0 ☐1 ☐2 ☐3

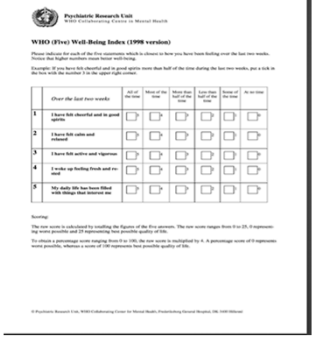
Developed by Drs. R.L. Spitzer, J.B. Williams, K. Kroenke and colleagues with an educational grant from Pfizer, Inc. No permission required to reproduce, translate, display or distribute.

MICHIGAN STATE UNIVERSITY College of Nursing

Other Screening Tools

- Beck's Depression Inventory
  - 21 questions
  - Score greater than 4 specificity 99%, sensitivity 97%
  - Requires fee to use
  - More time needed than PHQ-9 (Beck, et al., 1961,Narayana & Wong, 2014)
- World Health Organization Five (WHO-5)
  - Five item scale
  - Looks at wellbeing and percent change
  - No fee
  - More sensitive, less specific than PHQ-2 (Narayana & Wong, 2014)

MICHIGAN STATE UNIVERSITY College of Nursing



Psychiatric Research Unit
WHO Collaborating Centre in Mental Health

WHO (Five) Well-Being Index (1998 version)

Please indicate for each of the five statements which is closest to how you have been feeling over the last two weeks. Notice that higher numbers mean better well-being.

Example: If you have felt cheerful and in good spirits more than half of the time during the last two weeks, put a tick in the box with the number 3 in the upper right corner.

	Over the last two weeks	All of the time	Most of the time	More than half of the time	Less than half of the time	Some of the time	At no time
1	I have felt cheerful and in good spirits	☐	☐	☐	☐	☐	☐
2	I have felt calm and relaxed	☐	☐	☐	☐	☐	☐
3	I have felt active and vigorous	☐	☐	☐	☐	☐	☐
4	I woke up feeling fresh and rested	☐	☐	☐	☐	☐	☐
5	My daily life has been filled with things that interest me	☐	☐	☐	☐	☐	☐

Scoring:

The raw score is calculated by totalling the figures of the five answers. The raw score ranges from 0 to 25. 0 representing worst possible and 25 representing best possible quality of life.

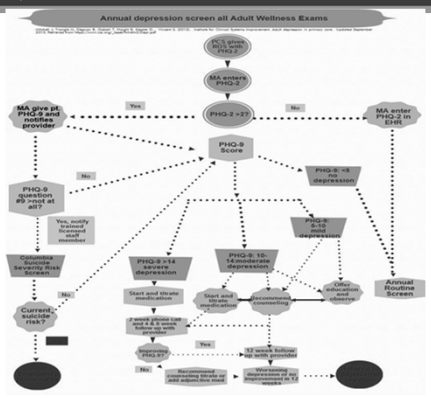
To obtain a percentage score ranging from 0 to 100, the raw score is multiplied by 4. A percentage score of 0 represents worst possible, whereas a score of 100 represents best possible quality of life.

© Psychiatric Research Unit, WHO Collaborating Center for Mental Health, Frederiksborg General Hospital, DK-3400 Hillerød

"The raw score is calculated by totaling the figures of the five answers. The raw score ranges from 0 to 25, 0 representing worst possible and 25 representing best possible quality of life. To obtain a percentage score ranging from 0 to 100, the raw score is multiplied by 4. A percentage score of 0 represents worst possible, whereas a score of 100 represents best possible quality of life.
Interpretation:
It is recommended to administer the Major Depression (ICD-10) Inventory if the raw score is below 13 or if the patient has answered 0 to 1 to any of the five items. A score below 13 indicates poor wellbeing and is an indication for testing for depression under ICD-10.
Monitoring change:
In order to monitor possible changes in wellbeing, the percentage score is used. A 10% difference indicates a significant change" (WHO-5, English version, page 2)

Psychiatric Research Unit, WHO Collaborating Center for Mental Health, Frederiksborg General Hospital, DK-3400 Hillerød

MICHIGAN STATE UNIVERSITY College of Nursing



MICHIGAN STATE UNIVERSITY College of Nursing

Best care for Depression in Primary Care Settings

- Integrated Care: Primary care Providers, Clinical Pharmacists, RN Care Managers, on-site behavioral health provider/psychiatry
  - Most evidenced based to improve outcomes
  - Decreases fragmentation of health care
  - Supported by National Committee on Quality Assurance (NCQA), Institute of for Clinical System's Improvement (ICSI), AAFP, APA, IOM and many others
  - Agency for Healthcare Research and Quality (AHRQ) Patient Centered Medical Homes (PCMH)
    - #1 Key function: Comprehensive Care, #3 Coordinated Care
  - Full reimbursement for services lacking
  - Expensive, need funding and community support for sustainability

(Alson, et all, 2016; Peck, 2013; Thota, et al. 2012)

MICHIGAN STATE UNIVERSITY College of Nursing

Other Care Models

- Collaborative Care: Care manager (RN or MSW) utilized for liaison between PCP, patient and BH
  - Based upon the Chronic Care Model components
  - Psychiatry usually not co-located though accessible
  - Cases discussed on routine basis with psychiatry and recommendations forwarded by care manager to PCP
  - Has shown effectiveness in improving outcomes of depression and other chronic illnesses
  - Reimbursement also an issue

(Peck, C.J. 2013; Thota, et al., 2012)

MICHIGAN STATE UNIVERSITY College of Nursing

No resources or support for defined integrated or collaborative care?

- Need workflow for follow up and access to BH resources if screening for depression
- Need workflow/policy when screening for suicide
- Mild and moderate depression effectively treated by education about depression and self care, and psychotherapy (ICSI, 2016)
- Often difficult for patient to initiate BH services
- Setting up a referral process from primary care office to BH provider requires community BH provider involvement
- Behavioral health network

MICHIGAN STATE UNIVERSITY College of Nursing

Setting up a behavioral health network

- Begin making calls
  - Get to know a few community BH providers
  - Word gets out
- Make a resource/catalogue of therapists or therapy groups
  - Licensing, qualifications
  - Location
  - Insurance panel or cash payments?
  - Wait times
  - Association with psychiatry
  - Specialty (patient ages? diagnoses? spiritual care? culturally sensitive care?)
  - Inquire if they accept direct referrals and best method (HIPPA compliant fax?)
- Check with state rules regarding the sharing of BH information
- Create special referral form to help facilitate referral
- Request confirmation of services and/or short consult note

MICHIGAN STATE UNIVERSITY College of Nursing

Setting up behavioral health network

- Educate staff regarding workflow process
- Emphasize the importance of initiating and following up on referrals
- Still need PCP clinic follow up to assess for improvement
- Connect often with BH providers to assess process
- Consider meet and greet "fairs" for PCPs and BH providers

MICHIGAN STATE UNIVERSITY College of Nursing

Resources

- Lexicon for Behavioral Health Integration "Lexicon"
https://integrationacademy.ahrq.gov/sites/default/files/Lexicon.pdf
- 2017 MIPS quality measures
https://qpp.cms.gov/mips/quality-measures
- Example of a referral to behavioral health services (Community Care of NC)
https://www.communitycarenc.org/media/files/behavioral-referral-section-1-fillable-pdf.pdf
- Example of BH communication to PCP (Community Care of NC)
https://www.communitycarenc.org/media/files/behavioral-referral-section-ii-pdf.pdf
- Example of a flowchart for BH referrals (Dept of health Sarasota, FL county)
https://www.integration.samhsa.gov/about-us/FDH_Referral_Tracking_Diagram.pdf
- Link to Columbia Suicide Severity Rating Scale
http://cssrs.columbia.edu/the-columbia-scale-c-ssrs/healthcare/
- Suicide Assessment Five-step Evaluation and Triage (SAFE-T)
http://cssrs.columbia.edu/the-columbia-scale-c-ssrs/healthcare/
- PHQ-9 for Adolescents:
https://www.integration.samhsa.gov/images/res/8.3.4%20Patient%20Health%20Questionnaire%20(PHQ-9)%20Adolescents.pdf

MICHIGAN STATE UNIVERSITY College of Nursing

References

Akincigil, A., & Matthews, E. B. (2017). National Rates and Patterns of Depression Screening in Primary Care: Results from 2012 and 2013. *Psychiatric Services, 68(7),* 660-666. doi:10.1176/appi.ps.201600096

Alson, A. R., Robinson, D. M., Ivanova, D., Azer, J., Moreno, M., Turk, M. L., ... Blackman, K. S. (2016). Depression in primary care. *International Journal Of Psychiatry In Medicine, 51(2),* 182-200. doi: 10.1177/0091217416636580

American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition.* Arlington, VA. Author. Available from dsm.psychiatryonline.org

Bishop, T. F., Ramsay, P. P., Casalino, L. P., Yuhua, B., Pincus, H. A., & Shortell, S. M. (2016). Care Management Processes Used Less Often For Depression Than For Other Chronic Conditions In US Primary Care Practices. *Health Affairs, 35(3),* 394-400. doi:10.1377/hlthaff.2015.1068

Center for Behavioral Health Statistics and Quality. *Behavioral Health Trends in the United States: Results From the 2014 National Survey on Drug Use and Health.* Rockville, MD: Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/sites/default/files/NSDUH-FRR1-2014/NSDUH-FRR1-2014.pdf

Centers for Medicare and Medicaid. (2016). Consensus Core Set: ACO and PCMH/ Primary Care Measures Version 1.0. Retrieved from https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures/Downloads/ACO-and-PCMH-Primary-Care-Measures.pdf

Chisholm D., Sweeny K., Sheehan P., Rasmussen B., Smit F., Cuijpers P., Saxena S. (2016). Scaling-up treatment of depression and anxiety: A global return on investment analysis. *The Lancet Psychiatry, 3 (5)* , pp. 415-424. http://dx.doi.org/10.1016/S2215-0366(16)30024-4

Conner, K. O., Copeland, V. C., Grote, N. K., Koeske, G., Rosen, D., Reynolds, C. F., & Brown, C. (2010). Mental health treatment seeking among older adults with depression: The impact of stigma and race. The American Journal of Geriatric Psychiatry : *Official Journal of the American Association for Geriatric Psychiatry, 18(6),* 531-543. doi:10.1097/JGP.0b013e3181cc0366

MICHIGAN STATE UNIVERSITY College of Nursing

References

Coventry, P. A., Hudson, J. L., Kontopantelis, E., Archer, J., Richards, D. A., Gilbody, S…Bower, P. (2014). Characteristics of effective collaborative care for treatment of depression: A systematic review and meta-regression of 74 randomised controlled trials. *PloS One, 9(9),* e108114.doi:10.1371/journal.pone.0108114

Cunningham, P. (2009). Beyond parity: Primary care physicians' perspectives on access to mental health care. *Health Affairs 28(3)* 490-501. doi: 10.1377/hlthaff.28.3w.490

Department of Health and Human Services. (2017). Merit-based Incentive Payment System: Quality measures. Retrieved from: https:// qpp.cms.gov/mips/quality-measures

Donaldson, M., Yordy, K., Lohr, K., & Vanselow, N. (1996). Primary care: America's health in a new era. *Institute of Medicine. [Adobe Digital Editions version].* Retrieved from http://www.nap.edu/catalog/5152/primary-care-americas-health-in-a-new-era.

Dotson, V. M., Beydoun, M. A., & Zonderman, A. B. (2010). Recurrent depressive symptoms and the incidence of dementia and mild cognitive impairment. *Neurology, 75(1),* 27-34. doi:10.1212/WNL.0b013e3181e62124

Gates, Kristin, et al. You can't Treat what You don't Diagnose: An Analysis of the Recognition of Somatic Presentations of Depression and Anxiety in Primary Care. *Families, Systems, & Health, 34(4)*: 317-29. doi: 10.1037/fsh0000229

Gill, J., Chen, Y., & Lieberman, M. (2008). Management of depression in ambulatory care for patients with medical co-morbidities: a study from a national Electronic Health Record (EHR) network. *International Journal Of Psychiatry In Medicine, 38(2),* 203-215.

Hall, C. A., & Reynolds, C. F. (2014). Late-life depression in the primary care setting: Challenges, collaborative care, and prevention. *Maturitas, 79(2),* 147–152. doi:10.1016/j.maturitas.2014.05.026

Kaiser Commission on Medicaid and and the Uninsured. (2013). *Medicaid: A primer: Key information on the nation's health coverage program for low-income people.* Retrieved from http://www.kff.org/medicaid/issue-brief/ medicaid-a-primer/

Karakus, M. & Patton, L. (2011). Depression and the Onset of Chronic Illness in Older Adults: A 12-Year Prospective Study, *The Journal of Behavioral Health Services & Research 38(3)*: 373-82. doi: 10.1007/ s11414-011-9234-2

MICHIGAN STATE UNIVERSITY College of Nursing

References

Kessler, R., Miller, B. F., Kelly, M., Graham, D., Kennedy, A., Littenberg, B . . . Pace, W. D. (2014). Mental health, substance abuse, and health behavior services in patient-centered medical homes. *Journal of the American Board of Family Medicine, 27(5),* 637-644. doi:10.3122/jabfm.2014.05.140021

Kessler, R. C., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Wittchen, H. (2012). Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. *International Journal of Methods in Psychiatric Research, 21(3),* 169-184. doi:10.1002/mpr.1359

Kravitz, R. L., Franks, P., Feldman, M., Meredith, L. S., Hinton, L., Franz, C., … Epstein, R. M. (2006). What Drives Referral from Primary Care Physicians to Mental Health Specialists? A Randomized Trial Using Actors Portraying Depressive Symptoms. *Journal of General Internal Medicine, 21(6),* 584–589. doi: 10.1111/j. 1525-1497.2006.00411.x

Kwan, B. & Nease, D. (2013). The state of evidence for integrated behavioral health in primary care. In Talen, M., & Valeras (editors). *Integrated Behavioral Health in Primary Care: Evaluating the Evidence, Identifying the Essentials.* Chicago: IL. Springer.

Maradiegue, A., & Khan, F. (2013). Missed opportunities in primary care: The importance of identifying depression through screening, family history, and chronic disease management. *Journal of Psychosocial Nursing & Mental Health Services, 51(2),* 27-36. doi: 10.3928/02793695-20130109-04

Mitchell J, Trangle M, Degnan B, Gabert T, Haight B, Kessler D… Vincent S. (2016). *Institute for Clinical Systems Improvement: Adult depression in primary care*. Retrieved from https://www.icsi.org/_asset/fnhdm3/ Depr.pdf

Mitchell, MJ, Vaze, A., Rao, S. (2009). Clinical diagnosis of depression in primary care: a meta-analysis. *Lancet, 374:* 609-619. doi: 10.1016/S0140-6736(09)60879-5

Narayana, S., & Wong, C. J. (2014). Office-based screening of common psychiatric conditions. *Medical Clinics of North America, 98(5),* 959-980. doi:10.1016/j.mcna.2014.06.002

MICHIGAN STATE UNIVERSITY College of Nursing

References

National Council for Behavioral Health. (2017). *The psychiatric shortage: Causes and solutions*. Washington DC: Author. Retrieved from https://www.thenationalcouncil.org/wp-content/uploads/2017/03/Psychiatric-Shortage_National-Council-.pdf

Nouwen, A., Winkley, K., Twisk, J., Lloyd, C. E., Peyrot, M., Ismail, K., … European Depression in Diabetes (EDID) Research Consortium. (2010). Type 2 diabetes mellitus as a risk factor for the onset of depression: A systematic review and meta-analysis. *Diabetologia, 53(12),* 2480-2486. doi:10.1007/s00125-010-1874-x

Peck, C.J. (2013). Integrated behavioral health and primary care: A common language. In Talen, M., & Valeras (editors). *Integrated Behavioral Health in Primary Care: Evaluating the Evidence, Identifying the Essentials.* Chicago: IL. Springer.

Psychiatric Research Unit, WHO Collaborating Center for Mental Health. (nd). *The WHO-5 Website.* Retrieved from https://www.psykiatri-regionh.dk/who-5/who-5-questionnaires/Pages/default.aspx

Rhee, T. G., Capistrant, B. D., Schommer, J. C., Hadsall, R. S., & Uden, D. L. (2017). Effects of depression screening on diagnosing and treating mood disorders among older adults in office-based primary care outpatient settings: An instrumental variable analysis. *Preventive Medicine, 100* 101-111. doi:10.1016/j.ypmed.2017.04.015

Substance Abuse and Mental Health Services Administration. (2013). Results from the 2012 national survey on drug use and health: Mental health findings, NSDUH Series H-47, HHS Publication No. (SMA) 13-4805. *Substance Abuse and Mental Health Services Administration*. Retrieved from: http://archive.samhsa.gov/ data/NSDUH/2k12MH_FindingsandDetTables/2K12MHF/NSDUHmhfr2012.htm# fig2-6

Tamblyn, R., Eguale, T.,Huang, A., Winslade, N., Doran, P. (2014). The incidence and determinants of primary nonadherence with prescribed medication in primary care: a cohort study.

Ann Intern Med. 160(7): 441–450. doi: 10.7326/M13-1705

Thota, A. B., Sipe, T. A., Byard, G. J., Zometa, C. S., Hahn, R. A., McKnight-Eily, L. R…Williams, S.P. (2012). Collaborative care to improve the management of depressive disorders: A community guide systematic review and meta-analysis. *American Journal of Preventive Medicine, 42(5),* 525-538. doi:10.1016/ j.amepre.2012.01.019

MICHIGAN STATE UNIVERSITY | College of Nursing

References

Topp, C.W., Ostergaard, S.,D., Sodergaard, S., & Bech, P. (2015). The WHO-5 well-being index: A systematic review of the literature. Psychother Psychsom, 84: 167-176. doi: 10.1159/000376585.

United States Preventative Task Force. (2016). *Depression in adults: Screening*. Retrieved from http://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/depression-in-adults-screening

United States Department of Health and Human Services, Agency for Health Care Research and Qaulity. (nd). *Defining Patient Centered Medical Home*. Retrieved from https://www.pcmh.ahrq.gov/page/defining-pcmh

Warden, D., Trivedi, M., Carmody, T., Toups, M., Zisook, S., Lesser, I...Rush, J. (2014). Adherence to antidepressant combinations and monotherapy for major depressive disorder: a CO-MED report of measurement-based care. *J Psychiatr Pract., 20(2)*: 118–132. doi: 10.1097/01.pra.0000445246.46424.fe