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The Role of Community Health Workers in Delivering Interventions Targeting Depression for Priority Populations

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Abstract

Social and behavioral factors such as culturally-held beliefs about illnesses, discomfort disclosing health information, and language barriers can inhibit a person's ability to receive or adhere to healthcare practices and lead to vulnerability among the target community. Community Health Workers (CHWs) are individuals who work with community members and healthcare providers to help deliver health services to their communities. CHWs are able to directly reach individuals who, due to cultural and language barriers, experience limitations in accessing healthcare services. CHWs serve their communities by providing health knowledge, translation services, and self-care training to promote health and wellness. Current research demonstrates effectiveness of CHWs in providing support through access to community health services, which leads to chronic physical disease management and prevention. However, few studies have sought to assess the role of CHWs in delivering mental healthcare interventions to priority populations. The purpose of this report is to review the literature on care delivery offered by CHW's and provide commentary on the following: (1) impact of depression on priority communities and the role of CHWs in providing support; and (2) ways by which mobile devices might support the work of community health workers.

Keywords: Community Health Workers, Depression, Mobile Health Promotion

1. Introduction

1.1. Community Health Workers

Community health workers (CHWs) are individuals who work with community members and healthcare providers to help deliver health services to their communities.[1] CHWs are able to directly reach individuals who experience limitations in accessing healthcare services caused by cultural and language barriers. CHWs serve their communities by providing health knowledge, translation services, and self-care training to promote health and wellness.[2] The top three health-related concerns CHWs target are: chronic disease prevention (36%); chronic disease management (34%); and health service access (36%).[2] The work of CHWs is significant because the communities targeted are most likely impacted by healthcare disparities, including new immigrants and communities of color.[3] Studies evaluating the effectiveness of CHW interventions indicate that healthcare delivery championed by invested community members outreaching to their communities is positively correlated to improvements in healthcare outcomes for priority populations.[3, 4]

1.2. Priority Populations

The term 'Priority Population' is a designation used in the healthcare industry to describe groups of individuals who are not adequately served by our existing healthcare system.[5] These individuals include Native American and Alaskan Native populations, Latino populations, women and youth between the ages of 18 and 24 years.[5] As healthcare resources are determined by access, the priority population designation is also used to describe individuals who live in rural areas and densely populated cities, where healthcare resources are at a minimum.

A current focus among healthcare professionals who treat priority populations is the integration of depression care into the primary care setting.[6] As major depression becomes an increasingly pertinent health concern for members of priority populations,[7] providers are examining ways to incorporate interventions targeting depression into healthcare facilities more accessible to priority populations, such as community health centers.[8]

1.3. Depression

Depression is a mental health diagnosis characterized by feelings of sadness, listlessness, and depressed affect, difficultly concentrating, changes in eating habits, insomnia and symptoms of physical illness and pain.[31] Mental health professionals acknowledge several forms of depression including Major Depression, characterized by one or more episodes of severe symptoms which interfere with an individual's ability to function in daily life,[32] and Persistent Depressive Disorder, characterized by the persistence of symptoms for longer than 24 months.[32] Research indicates that various factors play a role in the onset of depressive disorders, including genetic factors, biological influences, sociocultural factors and environmental factors.[33]

1.4. mHealth

Mobile Health Promotion (mHealth) is the practice of using mobile technology such as smart phones, mobile sensors, Short Message Service (texting) and mobile applications to promote health and improve the health status of the patient user.[9] Mobile technology can be an asset to CHWs treating depression, as the community health worker can offer patients broader access to resources and empower the individual to seek information to support healthcare interventions. mHealth can also be an integrative tool in addressing barriers to receiving care for depression.[10] Patients who are struggling with barriers, such as social stigmas associated with physically entering a mental health facility, can be supported with mHealth, as mobile devices offer remote assessment and self-monitoring capabilities.[10]

2. Literature Review Process

A systematic review of the literature was performed addressing community health workers, depression, and priority populations. The most pertinent resources included EBSCOHost, PubMed and Wiley Blackwell databases. Search terms included:

- Community health workers
- CHW
- Peer Educators
- Promotora de Salud
- Priority Populations
- Vulnerable Populations
- Minority Health
- Lady Health Workers
- Depression
- Major Depression
- MDD
- Seasonal Affective Disorder
- mHealth
- Mobile health promotion

- Healthcare delivery

The most relevant articles were selected for inclusion in the current analysis. Criteria for inclusion included peer reviewed articles published within the last 20 years, interventional studies, case studies, literature reviews and national health survey reports. Assessed studies originated in the United States, Canada, India and South Africa.

Table 1. Included Studies

Study	Details
Rosenthal E L, Wiggins N, Ingram M, et al. Community health workers then and now: an overview of national studies aimed at defining the field. The Journal of Ambulatory Care Management. 2014; 34(3): 247-259.	Year: 2011 Geography: United States Study Type: Literature Review
Ingram M, Reinschmidt K, Schachter K, et al. Establishing a Professional Profile of Community Health Workers: Results from a National Study of Roles, Activities and Training. Journal of Community Health. 2012; 37(2): 529-537.	Year: 2012 Geography: United States Study Type: Survey
Sabo S, Ingram M, Reinschmidt K M, et al. Predictors and a Framework for Fostering Community Advocacy as a Community Health Worker Core Function to Eliminate Health Disparities. American Journal of Public Health. 2013; 103(7): e67-e73.	Year: 2013 Geography: United States Study Type: Cross-sectional Analysis
O'Brien M J, Halbert C H, Bixby R, et al. Community Health Worker Intervention to Decrease Cervical Cancer Disparities in Hispanic Women. Journal of General Internal Medicine. 2010; 25(11): 1186-1192.	Year: 2010 Geography: United States Study Type: Interventional Study
US Department of Health Office of Minority Health. (2011). Promotores de salud initiative. Retrieved May 19, 2011. From » http://minorityhealth.hhs.gov/templates/browse.aspx?lvl=2&lvlID=207	Year: 2011 Geography: United States Study Type: Literature Review
Ell K, Pey-Jiuan L, & Bin X. Depression Care for Low-Income, Minority, Safety Net Clinic Populations With Comorbid Illness. Research on Social Work Practice. 2011; 20(5): 467-475.	Year: 2011 Geography: United States Study Type: Literature Review (Pooled Analysis)
Kilbourne A, Irmiter C, Capobianco J, et al. Improving Integrated General Medical and Mental Health Services in Community-based Practices. Administration and Policy in Mental Health and Mental Health Services Research. 2008; 5(35): 337-345.	Year: 2008 Geography: United States Study Type: Mixed-Methods Study
Chowdhary N, Jotheeswaran A T, Nadkarni A, et al. The methods and outcomes of cultural adaptations of psychological treatments for depressive disorders: a systematic review. Psychological Medicine. 2014; 44(6): 1131-1146.	Year: 2014 Geography: United States Study Type: Meta-analysis

Dicianno B E, Parmanto B, Fairman A D, et al. Perspectives on the Evolution of Mobile (mHealth) Technologies and Application to Rehabilitation. Physical Therapy. 2015; 95(3): 397-405.	Year: 2015 Geography: United States Study Type: Literature Review
McCusker J, Cole M, Yaffe M, Sussman T, et al. A feasibility study of a telephone-supported self-care intervention for depression among adults with a comorbid chronic physical illness in primary care. Mental Health In Family Medicine. 2012; 9(4): 257-273.	Year: 2012 Geography: Canada Study Type: Interventional Study
US Department of Health and Human Services. Community health worker national workforce study. San Antonio: Regional Center for Health Workforce Studies of the University of Texas Health Science Center. 2007	Year: 2007 Geography: United States Study Type: Literature Review
Tran AN, Ornelas I J, Kim M, et al. Results From a Pilot Promotora Program to Reduce Depression and Stress Among Immigrant Latinas. Health Promotion Practice. 2014; 15(3): 365-372.	Year: 2014 Geography: United States Study Type: Interventional Study
National Survey on Drug Use and Health: Mental Health Findings, 2011. (2012). ICPSR Data Holdings.	Year: 2011 Geography: United States Study Type: Survey
Johnson NB, Hayes LD, Brown K, et al. CDC National Health Report: leading causes of morbidity and mortality and associated behavioral risk and protective factors-United States, 2005-2013. MMWR Surveill Summ. 2014; 63(Suppl 4): 3-27.	Year: 2014 Geography: United States Study Type: Survey
Goldman LS, Nielsen NH, Champion HC, et al. Awareness, Diagnosis, and Treatment of Depression. Journal of General Internal Medicine. 1999;14(9): 569–580.	Year: 1999 Geography: United States Study Type: Literature Review
Brisset C, Leanza Y, Rosenberg E, et al. Language Barriers in Mental Health Care: A Survey of Primary Care Practitioners. Journal of Immigrant & Minority Health. 2014; 16(6): 1238-1246.	Year: 2014 Geography: Canada Study Type: Observational Study
Sabo S, Ingram M, Reinschmidt KM, et al. Predictors and a Framework for Fostering Community Advocacy as a Community Health Worker Core Function to Eliminate Health Disparities. American Journal of Public Health. 2013; 103(7): e67-e73.	Year: 2013 Geography: United States Study Type: Cross-sectional Analysis
Blewett LA, & Owen RA. Accountable Care for the Poor and Underserved: Minnesota's Hennepin Health	Year: 2013 Geography: United States Study Type: Literature Review

Model. American Journal of Public Health. 2015; 105(4): 622-624.	
Kaufmann L, Richardson W, Floyd J, et al. Tribal Veterans Representative (TVR) Training Program: The Effect of Community Outreach Workers on American Indian and Alaska Native Veterans Access to and Utilization of the Veterans Health Administration. Journal of Community Health. 2014; 39(5): 990-996.	Year: 2014 Geography: United States Study Type: Program Review
South J, White J, Branney P, et al. Public health skills for a lay workforce: findings on skills and attributes from a qualitative study of lay health worker roles. Public Health. 2013; 127(5): 419-426.	Year: 2013 Geography: United States Study Type: Qualitative Analysis
Aikens J, Trivedi R, Heapy A, et al. Potential Impact of Incorporating a Patient-Selected Support Person into mHealth for Depression. Journal of General Internal Medicine. 2015; 30(6): 797-803.	Year: 2015 Geography: United States Study Type: Interventional Study
Shea C, Reiter K, Weiner B, et al. Stage 1 of the meaningful use incentive program for electronic health records: a study of readiness for change in ambulatory practice settings in one integrated delivery system. BMC Medical Informatics & Decision Making [serial online]. December 15, 2014;14 (1):1-14.	Year: 2014 Geography: United States Study Type: Observational Survey Analysis
Naimoli JF, Perry HB, Townsend JW, et al. Strategic partnering to improve community health worker programming and performance: features of a community-health system integrated approach. Human Resources for Health. 2015; 13(1): 1-13.	Year: 2015 Geography: United States Study Type: Literature Review
Iyengar M, & Florez-Arango JF. Decreasing workload among community health workers using interactive, structured, rich-media guidelines on smartphones. Technology and health care. Journal of the European Society for Engineering and Medicine. 2012; 21(2): 113-123.	Year: 2012 Geography: United States Study Type: Interventional Study
Mahmud N, Rodriguez J, & Nesbit J. A text message-based intervention to bridge the healthcare communication gap in the rural developing world. Technology and Health Care. 2010; 18(2): 137-144.	Year: 2010 Geography: Africa Study Type: Interventional Study
Pradeep J, Isaacs A, Shanbag D, et al. Enhanced care by community health workers in improving treatment adherence to antidepressant medication in rural women with major depression. Indian Journal of Medical Research. 2014; 139(2): 236-245.	Year: 2014 Geography: India Study Type: Randomized Controlled Trial
Ben-Zeev D, Kaiser SM, Brenner CJ, et al. Development and usability testing of FOCUS: A smartphone system for self-management of	Year: 2013 Geography: United States Study Type: Instrument Validation (Survey)

schizophrenia. Psychiatric Rehabilitation Journal. 2013; 36(4): 289.	
Clement S, Schauman O, Graham T. et al. What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. Psychological Medicine. 2015; 45(1): 11-27.	Year: 2015 Geography: United States Study Type: Literature Review
Jacob KS. The diagnosis and management of depression and anxiety in primary care: the need for a different framework. Postgraduate Medical Journal. 2006; 82(974): 836–839.	Year: 2006 Geography: United States Study Type: Literature Review

3. Community Health Workers and Healthcare Delivery

Community health workers (CHWs) are community members who have sought the knowledge and training to address the specific health and social concerns experienced by their peers.[11] Their work support clients managing chronic diseases; educate clients about disease prevention; and, assist clients with preventative testing.[3] Working as liaisons, CHWs help to cultivate a mutual understanding between community members and their healthcare providers to promote service delivery attentive to community members' cultural needs. Their methods often include providing translation services to clients in the healthcare setting, accommodating clients who are implementing lifestyle changes and offering informal culturally-sensitive peer counseling.[1] CHWs support the work of the medical team by reaching individuals in their communities (Figure 1). The result is a community-specific healthcare environment in which adapted methods are used to address specific barriers to healthcare.

Figure 1. UNICEF, 2011, Frog Design Project Mawana

3.1. Why Are Community Health Workers Effective At Reaching Priority Populations?

Community health workers are effective in reaching priority populations because they are representative members of the communities they serve. CHWs typically share the same culture, race/ethnicity, language, and socioeconomic status as the community, and often see themselves as leaders in their settings.[2] The 2014 National Community Health Worker Advocacy Survey (NCHWAS) indicates that four of five CHWs (83%) are representatives of their communities.[12] CHWs are also available to their host community members as they often work in local healthcare settings; as many as 60% of CHWs are employed in community health-based organizations, including, federally qualified health centers, local health departments, and tribal health departments.[12] For individuals who have previously been disenfranchised by the healthcare system, identifying with the CHW helps to establish trust and potentially improve the communication with the healthcare provider, thus providing opportunities for promoting health and wellness.

4. Depression among Priority Populations

Community health workers are now charged with helping to remediate depression among priority populations.[13] The National Survey on Drug Use and Health: Mental Health Findings, indicates that 16 million adults in the U.S have experienced a major depressive episode in the past year. Increasing instances of depression have a significant impact on our healthcare system, with 10.9 million individuals receiving treatment for depression through a medical professional, mental health professional, or with medications.[14] Approximately, 16% of the US population experience depression and a diagnosis of major depressive disorder is now perceived to be the leading cause of disability in the U.S and worldwide.[15]

Among individuals who experience a major depressive episode, 48% belong to a priority population (Figure 2), including minority and ethnically diverse populations, women and youth. Collectively, these individuals account for nearly one half of the U.S. population currently living with major depression.

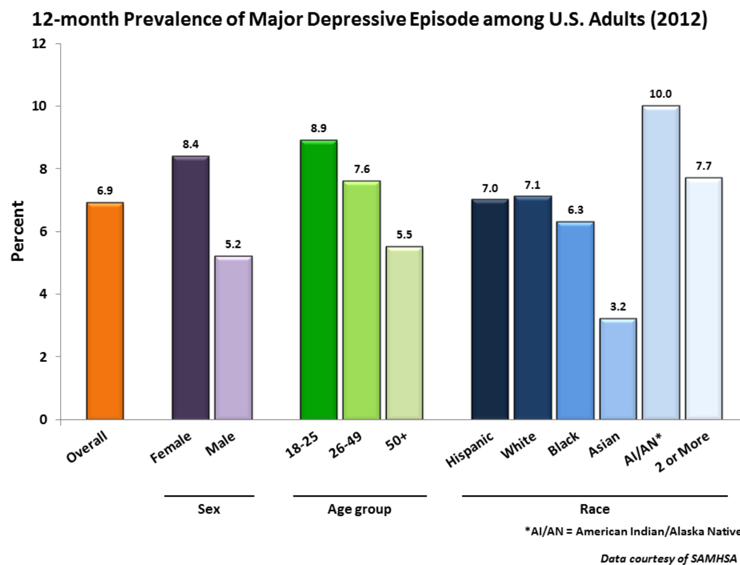

Figure 2. NIMH, 2012, Prevalence of major depressive episode among U.S adults

Research indicates a need for increased access and adherence to mental healthcare.[7] The Centers for Disease Control and Prevention reports that intentional self-harm is the tenth leading cause of death amongst U.S. adults with reports of 2.15% increase in suicide-related deaths each year.[16] The CDC reports that 29% of suicide-related deaths in 2013 involved individuals belonging to priority populations.[16]

4.1. Barriers To Treatment Of Depression In Priority Populations

For priority populations, treatment for depression is often discussed in terms of 'barriers.' Barriers are circumstances that prevent or deter an individual from pursuing or receiving healthcare services.[17] A recent survey of care providers diagnosing depression in priority populations indicated that the most common barriers experienced when treating depression include perceptions of mental illness, social stigma associated with depression, and cultural factors that prevent treatment.[18] Providers reported that patients believed depression to be the result of life circumstances, rather than a treatable medical condition that they could recover from. Providers also noted that their patients expressed concerns about the social stigmas associated with mental health treatment. Most notably, providers reported that patients were most likely to be open to discussing treatment if providers acknowledged the impact of cultural differences in the care environment; this was particularly effective for providers who spoke their patient's preferred language.[18]

4.1.1. how can community health workers address barriers to mental health care?

Community health workers can provide patient advocacy by directly addressing barriers to care on an individual level. Advocacy may include providing patient education on depression and mental health care, or offering resources and treatment options for a client.[19] Serving as patient advocate, the CHW can provide continuity of care between the physician's office and the individual's social environment. The fact that CHWs have the capacity to interact with an individual within his/her social environment, and with the person's physician, means that they are well-suited to assist their clients with integrating the medical advice from the healthcare practitioners into daily lives and home environments.[20] Community health workers can also intervene with community outreach activities, acting as a community educator and promotor of information about depression to the affected community member. Providing education at the community-level can help to address the social stigmas resulting from barriers to care and can help establish a dialogue for discussing mental health care.[21] CHWs are also familiar with the nuances of their community's needs, and therefore equipped to select and distribute educational materials that are relevant to the challenges experienced by members in the community. Finally, CHWs can intervene by coordinating culturally inclusive healthcare initiatives, or augmenting someone's existing care with culturally inclusive practices.[22] Interventions might include interpreting for a client in the healthcare setting, or working with a medical provider to establish common language to discuss mental healthcare with the client.

5. Mobile Health Promotion and Community Health Workers

5.1. Using mHealth To Support Healthcare Delivery

To assist with healthcare delivery to priority populations, community health workers are implementing mobile technology.[23] A study examining the effectiveness of incorporating a lay support person into mHealth-based treatment for depression indicates that a patient's health outcome will be improved with increased access to external resources that augment care.[23] CHWs have the ability to support patient care through mobile devices by offering supplemental psycho-education resources, patient wearable devices permitting self-monitoring, and devices offering medication support.

A significant impact of mHealth is evident with the advent of electronic health records (EHR).[24] Previously, community health workers who saw clients in home settings lacked access to detailed, accessible client records and health information.[25] Electronic Health Records enable CHWs to keep records of their interactions with clients in the community, while still maintaining the ability to access records on a mobile device. Electronic Health Records are important to the formation of integrated healthcare teams and for permitting holistic client support. A platform for communicating with healthcare providers, facilitates quick and efficient delivery of patient health information to key health personnel.

A recent study that examined the impact of electronic health record platforms on the workload of community health workers indicated that when CHWs are equipped with an electronic record keeping system, providers perceive their workload to be streamlined and more manageable. In the study, researchers conducted a randomized controlled trial of 50 CHWs treating 15 matched pairs of medical cases, using either paper-based materials or phone-based Interactive Structured Rich-Medical guidelines (ISRMGs).[26]

5.1.1. how can community health workers use mHealth to address barriers to mental healthcare?

In many underserved rural locations, community health workers strive to bridge gaps created when individuals live long distances from healthcare facilities.[27] While their efforts do address client's physical barriers to receiving care, the fact that CHWs travel long distances to reach clients, taxes the financial resources of CHWs and their community health partners. Mobile technology presents a unique opportunity to address physical and affective barriers that might inhibit mental healthcare. Community health workers can administer testing, offer patient support, and initiate self-management resources through mobile communication methods, thus alleviating geographic and financial conflicts that surmount physical restrictions. Research indicates that when CHWs support interventions targeting depression in rural communities, individuals report greater adherence to antidepressives and increased self-efficacy around seeking treatment.[28]

To address barriers created by social stigmas associated with the diagnosis of a mental illness, mHealth creates a unique opportunity for patients to self-manage their health conditions. A study evaluating the feasibility of a self-management platform for individuals living with a chronic mental health condition, indicated that practitioners believed that clients could learn to use and benefit from a mobile platform supporting medication adherence, mood regulation, sleep, social functioning, and symptom management.[29] Furthermore, community health workers can use mHealth interventions to address physical and affective barriers inhibiting mental healthcare for depression. In aiding efforts to reach rural populations, apps and other mHealth interventions may be able to act as a first line of contact for individuals contemplating care for depression. CHWs can outreach to rural populations, equipping them with self-monitoring applications and psycho-education to integrate depression awareness into their community systems. The capabilities of mHealth equip community leaders to communicate directly with CHWs, who can answer questions about depression care and provide training for interventions in the community.

6. Conclusion

A methodological review of the literature on the effectiveness of community health workers in reaching priority populations indicates that CHWs play a vital role in the healthcare team by extending the reach of the healthcare environment into an individual's social environment. The integrated status of the CHW in the community provides an opportunity for genuine interaction with community members. Within this interaction, CHWs can supplement the healthcare intervention with advocacy, community outreach and cultural inclusion, thus supporting an individual's positive health outcome.

Depression is prevalent among the identified priority populations. A constellation of affective and physical barriers create a stonewall between priority individuals and mental health resources. Barriers of particular magnitude include social stigmas associated with mental health diagnoses and culturally-derived views on the causes and symptoms of mental illness. Misunderstandings about the implications of mental illnesses and in particular, depression, has led to mental health diseases going untreated among priority individuals.[30]

Community health workers can be effective at reaching populations traditionally disenfranchised from mental healthcare systems. CHWs are integrated members of these communities, and therefore, they are in unique positions to understand and address the specific cultural challenges of each community. CHWs may potentially reach their communities by designing and implementing relevant information and tailored educational programs to effectively meet the needs of each community. Furthermore, community health workers can use mHealth interventions to target mental health concerns such as depression. Mobile applications and other mHealth interventions may be able to act as a first line of contact for individuals contemplating care for depression; also, CHWs can outreach to rural populations, equipping them with self-monitoring applications and psycho-education to integrate depression awareness into their community systems. More research that explores the application of CHWs in mental healthcare is needed, specifically regarding the feasibility of training community health workers to deliver psychological interventions and the effectiveness of adapting psychotherapeutic interventions for varying cultural contexts.

7. References

1. Rosenthal, E. L., Wiggins, N., Ingram, M., Mayfield-Johnson, S., & De Zapien, J. G. (2011). Community health workers then and now: an overview of national studies aimed at defining the field. The Journal of Ambulatory Care Management, 34(3), 247-259.
2. Ingram, M., Reinschmidt, K., Schachter, K., Davidson, C., Sabo, S., Zapien, J., & Carvajal, S. (2012). Establishing a Professional Profile of Community Health Workers: Results from a National Study of Roles, Activities and Training. Journal of Community Health, 37(2), 529-537.
3. Sabo, S., Ingram, M., Reinschmidt, K. M., Schachter, K., Jacobs, L., de Zapien, J. G., & ... Carvajal, S. (2013). Predictors and a Framework for Fostering Community Advocacy as a Community Health Worker Core Function to Eliminate Health Disparities. American Journal of Public Health, 103(7), e67-e73.
4. O'Brien, M. J., Halbert, C. H., Bixby, R., Pimentel, S., & Shea, J. A. (2010). Community Health Worker Intervention to Decrease Cervical Cancer Disparities in Hispanic Women. Journal of General Internal Medicine, 25(11), 1186-1192.
5. US Department of Health Office of Minority Health. (2011). Promotores de salud initiative. Retrieved May 19, 2014. From » http://minorityhealth.hhs.gov/templates/browse.aspx?lvl=2&lvlID=207

6. Ell, K., Pey-Jiuan, L., & Bin, X. (2010). Depression Care for Low-Income, Minority, Safety Net Clinic Populations with Comorbid Illness. Research on Social Work Practice, 20(5), 467-475.
7. Kilbourne, A., Irmiter, C., Capobianco, J., Reynolds, K., Milner, K., Barry, K., & Blow, F. (2008). Improving Integrated General Medical and Mental Health Services in Community-based Practices. Administration and Policy in Mental Health and Mental Health Services Research, 5(35), 337-345.
8. Chowdhary, N., Jotheeswaran, A. T., Nadkarni, A., Hollon, S. D., King, M., Jordans, M. D., & ... Patel, V. (2014). The methods and outcomes of cultural adaptations of psychological treatments for depressive disorders: a systematic review. Psychological Medicine, 44(6), 1131-1146.
9. Dicianno, B. E., Parmanto, B., Fairman, A. D., Crytzer, T. M., Yu, D. X., Pramana, G., & ... Petrazzi, A. A. (2015). Perspectives on the Evolution of Mobile (mHealth) Technologies and Application to Rehabilitation. Physical Therapy, 95(3), 397-405.
10. McCusker, J., Cole, M., Yaffe, M., Sussman, T., Lavoie, K. L., Strumpf, E., & ... de Raad, M. (2012). A feasibility study of a telephone-supported self-care intervention for depression among adults with a comorbid chronic physical illness in primary care. Mental Health in Family Medicine, 9(4), 257-273.
11. US Department of Health and Human Services. (2007). Community health worker national workforce study. San Antonio: Regional Center for Health Workforce Studies of the University of Texas Health Science Center.
12. 2014 National Community Health Worker Advocacy Survey Reports. (2014, August 25). Retrieved from http://azprc.arizona.edu/content/2014-national-community-health-worker-advocacy-survey-reports
13. Tran, A. N., Ornelas, I. J., Kim, M., Perez, G., Green, M., Lyn, M. J., & Corbie-Smith, G. (2014). Results From a Pilot Promotora Program to Reduce Depression and Stress Among Immigrant Latinas. Health Promotion Practice, 15(3), 365-372.
14. National Survey on Drug Use and Health: Mental Health Findings, 2011. (2012). ICPSR Data Holdings.
15. Depression. (n.d.). Retrieved May 28, 2015, from http://www.who.int/mediacentre/factsheets/fs369/en
16. Johnson, N. B., Hayes, L. D., Brown, K., Hoo, E. C., & Ethier, K. A. (2014). CDC National Health Report: leading causes of morbidity and mortality and associated behavioral risk and protective factors-United States, 2005-2013. MMWR Surveill Summ, 63(Suppl 4), 3-27.
17. Goldman, L. S., Nielsen, N. H., Champion, H. C., & for the Council on Scientific Affairs, American Medical Association. (1999). Awareness, Diagnosis, and Treatment of Depression. Journal of General Internal Medicine, 14(9), 569–580.
18. Brisset, C., Leanza, Y., Rosenberg, E., Vissandjée, B., Kirmayer, L., Muckle, G., & ... Laforce, H. (2014). Language Barriers in Mental Health Care: A Survey of Primary Care Practitioners. Journal of Immigrant & Minority Health, 16(6), 1238-1246.
19. Sabo, S., Ingram, M., Reinschmidt, K. M., Schachter, K., Jacobs, L., de Zapien, J. G., & ... Carvajal, S. (2013). Predictors and a Framework for Fostering Community Advocacy as a Community Health Worker Core Function to Eliminate Health Disparities. American Journal of Public Health, 103(7), e67-e73.
20. Blewett, L. A., & Owen, R. A. (2015). Accountable Care for the Poor and Underserved: Minnesota's Hennepin Health Model. American Journal of Public Health, 105(4), 622-624.
21. Kaufmann, L., 'Buck' Richardson, W., Floyd, J., & Shore, J. (2014). Tribal Veterans Representative (TVR) Training Program: The Effect of Community Outreach Workers on American Indian and Alaska Native Veterans Access to and Utilization of the Veterans Health Administration. Journal of Community Health, 39(5), 990-996.
22. South, J., White, J., Branney, P., & Kinsell, K. (2013). Public health skills for a lay workforce: findings on skills and attributes from a qualitative study of lay health worker roles. Public Health, 127(5), 419-426.
23. Aikens, J., Trivedi, R., Heapy, A., Pfeiffer, P., & Piette, J. (2015). Potential Impact of Incorporating a Patient-Selected Support Person into mHealth for Depression. Journal of General Internal Medicine, 30(6), 797-803.
24. Shea C, Reiter K, Weiner B, et al. Stage 1 of the meaningful use incentive program for electronic health records: a study of readiness for change in ambulatory practice settings in one integrated delivery system. BMC Medical Informatics & Decision Making [serial online]. December 15, 2014;14(1):1-14.
25. Naimoli, J. F., Perry, H. B., Townsend, J. W., Frymus, D. E., & McCaffery, J. A. (2015). Strategic partnering to improve community health worker programming and performance: features of a community-health system integrated approach. Human Resources for Health, 13(1), 1-13.
26. Iyengar, M., & Florez-Arango, J. F. (2012). Decreasing workload among community health workers using interactive, structured, rich-media guidelines on smartphones. Technology and health care. Journal of the European Society for Engineering and Medicine, 21(2), 113-123.
27. Mahmud, N., Rodriguez, J., & Nesbit, J. (2010). A text message-based intervention to bridge the healthcare communication gap in the rural developing world. Technology and Health Care, 18(2), 137-144.

28. Pradeep, J., Isaacs, A., Shanbag, D., Selvan, S., & Srinivasan, K. (2014). Enhanced care by community health workers in improving treatment adherence to antidepressant medication in rural women with major depression. Indian Journal of Medical Research, 139(2), 236-245.
29. Ben-Zeev, D., Kaiser, S. M., Brenner, C. J., Begale, M., Duffecy, J., & Mohr, D. C. (2013). Development and usability testing of FOCUS: A smartphone system for self-management of schizophrenia. Psychiatric Rehabilitation Journal, 36(4), 289.
30. Clement, S., Schauman, O., Graham, T., Maggioni, F., Evans-Lacko, S., Bezborodovs, N., & ... Thornicroft, G. (2015). What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. Psychological Medicine, 45(1), 11-27.
31. Jacob, K. S. (2006). The diagnosis and management of depression and anxiety in primary care: the need for a different framework. Postgraduate Medical Journal, 82(974), 836–839.
32. Depression. (n.d.). Retrieved December 10, 2015, from http://www.nimh.nih.gov/health/topics/depression/index.shtml#part_145397
33. Bembnowska, M., & Josko-Ochojska, J. (2015). What causes depression in adults? Polish Journal of Public Health, 125(2), 116-120.