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Ment Health Fam Med. Author manuscript; available in PMC 2015 January 26.

Published in final edited form as:
Ment Health Fam Med. 2013 December ; 10(4): 191–202.

"Someone's got to do it" – Primary care providers (PCPs) describe caring for rural women with mental health problems

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Abstract

Objective—Little is known about how primary care providers (PCPs) approach mental health care for low-income rural women. We developed a qualitative research study to explore the attitudes and practices of PCPs regarding the care of mood and anxiety disorders in rural women.

Method—We conducted semi-structured interviews with 19 family physicians, internists, and obstetrician-gynecologists (OBGYNs) in office-based practices in rural central Pennsylvania. Using thematic analysis, investigators developed a coding scheme. Questions focused on 1) screening and diagnosis of mental health conditions, 2) barriers to treatment among rural women, 3) management of mental illnesses in rural women, and 4) ideas to improve care for this population.

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Ethical Approvals: Ethical approval for the Rural Women's Healthcare Project was provided by the Institutional Review Board of the Pennsylvania State University College of Medicine, Hershey, PA, IRB #33253EP.

Conflict of interest: None of the authors report any relevant conflicts of interest.

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Results—PCP responses reflected these themes: 1) PCPs identify mental illnesses through several mechanisms including routine screening, indicator-based assessment, and self-identification by the patient; 2) Rural culture and social ecology are significant barriers to women in need of mental healthcare; 3) Mental healthcare resource limitations in rural communities lead PCPs to seek creative solutions to care for rural women with mental illnesses; 4) To improve mental healthcare in rural communities, both social norms and resource limitations must be addressed

Conclusion—Our findings can inform future interventions to improve women's mental healthcare in rural communities. Ideas include promoting generalist education in mental healthcare, and expanding access to consultative networks. In addition, community programs to reduce the stigma of mental illnesses in rural communities may promote healthcare seeking and receptiveness to treatment.

MeSH Headings/Keywords

women; rural health; qualitative research; primary health care

Introduction

Treatment for mental health conditions represents a significant portion of ambulatory healthcare provided in the United States.[1] Women are highly susceptible to common mood and anxiety disorders;[2] among which depression and anxiety impose the largest burden.[3] Women utilize a greater proportion of mental health services compared to men.[1,4] Reasons for this gender disparity include increased biological susceptibility, social dynamics and exposure to violence.[2] Women in rural communities are particularly vulnerable to mental health disorders due to traditional caregiver roles, isolation, unstable or low income, and low educational attainment.[5] Access to care and support services is most limited among women residing in the most rural areas.[6] Due to these stressors, women in rural areas have a greater prevalence of mood and anxiety disorders (41%) compared to women in urban areas (13–20%),[5] yet they do not receive as much mental health treatment from their PCPs as urban women.[4]

Primary care providers (PCPs) form the "de facto" mental health system,[7,8] providing a large portion of mental health services in all communities. Mental health services provided through primary care are particularly important in rural settings, where there are fewer mental health specialists, long distances to travel for specialty care, and increased waiting time for specialist appointments.[9,10] Moreover, rural patients are more likely to use PCPs compared to urban patients for their mental health needs,[11] and may prefer to obtain care from PCPs even if referral to specialty care is available.[12]

In rural areas, mental healthcare provided by PCPs is complex due to both patient characteristics and the rural environment. Rural patients present with more poorly defined symptoms, more numerous comorbidities and more chronic illnesses compared with urban patients, and may prefer treatment of somatic problems instead of mental health.[12] This occurs in part because of limited awareness of mental health disorders among rural residents, concern over stigma associated with mental health problems, and the tendency to

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seek care from other community resources such as faith-based organizations.[13,14] In addition, confidentiality concerns are particularly salient for those in rural communities and may prevent care-seeking.[15] Limited healthcare resources in rural areas, lower socioeconomic status and lack of health insurance also make treatment of mental health disorders more difficult compared to non-rural settings.[16,17] Indeed, the unique characteristics of rural residents and their communities may lead to increased prevalence of depression.[18]

Identifying mood and anxiety disorders in primary care settings is complicated. Screening guidelines for primary care do not include depression screening, unless adequate resources for follow-up of depressed patients are readily available.[19] Moreover, PCPs may focus on treating the somatic manifestations of mood and anxiety disorders rather than on identifying the underlying mental illness.[20,21] Under-recognition of post-traumatic stress disorder (PTSD) in primary care settings is of particular concern, with prior studies showing very little documentation of PTSD diagnosis in primary care settings despite high prevalence.[22,23]

Even after a mood or anxiety disorder is identified, mental health care delivered in the primary care setting can be suboptimal. Some PCPs perceive mental illnesses as being due to patients' emotional weakness.[24] PCPs may not be as skilled as mental health professionals in treating the full range of mood and anxiety disorders -- for example, PCPs may diagnose patients with depression who actually have other types of mental illness.[25,26]

Thus, rural women have a high burden of mood and anxiety disorders and there are numerous barriers to adequate care of these problems. The social ecology of rural communities – in which social, institutional and cultural contexts inform relationships between people and their environments[27] – can significantly impact the delivery of mental health care to rural women. Since rural patients have a large burden of mental illness, their PCPs are well-positioned to understand patients' complexities and other barriers to providing optimal mental health care. However, most prior studies examining rural mental health delivery have focused on community samples,[1,4] and have not incorporated the perspective of rural primary care providers. Although previous studies have demonstrated that PCPs perceive they have inadequate knowledge of mental illness and that lack of resources is a systems barrier to providing adequate mental health care,[28,29] these studies did not explore PCPs' opinions about their role in providing mental health care and how to improve care delivery in rural areas.

We explored the attitudes and practices of PCPs treating rural women in central Pennsylvania. Our goal was to identify sociocultural factors and service deficits impacting mental health care from the perspective of the primary care provider and to delineate actionable strategies to improve mental healthcare for rural women. We focused on understanding: 1) how screening and diagnosis of mental health conditions in rural primary care is accomplished, 2) barriers to identification and treatment of mental health conditions specific to rural women, 3) management of mental illnesses in rural women, and 4) PCPs' ideas about how to improve care for rural women affected by mental illnesses. We focused on depression and anxiety disorders because these represent the greatest burden of illness

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among U.S. women.[3] Among the anxiety disorders, we were particularly interested in PTSD, because recent literature had suggested that PTSD is under-recognized in primary care,[23] and because we are aware of no prior study that specifically examines care for PTSD among rural women seeking primary care.

Methods

Sample Selection

We used purposive sampling to recruit primary care physicians (PCPs) practicing in Central Pennsylvania. Purposive sampling, rather than representative sampling, is used in qualitative research to identify a sample with particular attributes of interest.[30,31] The American Medical Association (AMA) Physician Masterfile was used to identify all physicians practicing in a 28 county central Pennsylvania region. Primary care physicians were defined as office-based family practitioners (FP), obstetrician-gynecologists (OB-GYN), general internists (IM) and general practitioners (GP), who were without further subspecialization. We excluded Federal (Veterans Affairs) practices. Within the 28 counties, we targeted practices in rural zip codes identified using the zip-code based approximation of the Rural Urban Commuting Area (RUCA) codes, the U.S. Department of Agriculture's Census tract-based, zip code classification scheme based on population density, urbanization and daily commuting practices.[32] RUCA codes are scaled from 1 to 10 with 1 being the least rural and 10 the most rural. Zip codes with RUCA designations 7–9 are considered "small town" or "rural" and a RUCA designation of 10 is considered "isolated rural." Due to a small number of physician practices in RUCA codes 7–10, we also included practices from zip codes that were directly adjacent to the rural zip codes, reasoning that rural women were likely travel to adjacent zip codes to obtain healthcare. All the practices in these zip codes were RUCA codes 4–6, or "micropolitan;" no urban zip codes were included.

Using these methods, 250 eligible physicians (85 rural and 165 rural adjacent) were notified by letter that the Rural Women's Health Care Project would be conducted in their area. Twelve participants responded to this initial recruitment invitation. Follow-up phone calls were made to PCPs with priority given to those with practices in RUCA codes 7–10. In a phone screen, all participants identified as a PCP who provided healthcare to rural women. Participants were recruited on a rolling basis, until thematic saturation was achieved (n=19 interviews). Thematic, or theoretical, saturation, occurs when all themes are fully elaborated and no new themes emerge. Thematic saturation is a standard method for determining sample sizes in qualitative research.[31]

Data Collection

Interviews were conducted either in person at the physician's practice (n=10) or by phone (n=9) depending on the participant's preference and availability of research staff. Each interview lasted approximately one hour. At least two investigators were present at each interview, with one serving as interviewer and the other taking notes to provide a backup for the audio recording. Interviews were audio recorded and then transcribed professionally.

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The first part of the interview consisted of questions exploring years in practice, practice environment, and reasons for practicing in rural areas. The second part of the interview was subdivided into four areas specified by the investigator team as key issues for women's healthcare in rural communities. The participants were asked to limit answers to their experiences providing care for adult women in rural areas. The areas explored were colorectal cancer screening, preventive reproductive health,[33] intimate partner violence and mental health. In this paper, we present data on the questions related to mental health, which focused on mood and anxiety disorders including PTSD, as described above. The interview guide was pilot tested with a convenience sample of six physicians from the investigators' home institution and modified slightly during the process to explore emergent themes, in keeping with standard qualitative methodology. The final interview guide section on mental health is available in the Appendix.

Data Analysis

Transcripts and interview notes were analyzed independently by three research team members (MCG, JSM-H, and CSW). We used thematic analysis to identify the topics related to the themes. Data were organized using an iterative process, and final coding was agreed upon through arbitration among the investigators. Illustrative examples of themes are presented using representative quotes from participants. NVivo9 and 10 software packages for qualitative data were used to analyze the data and identify thematic categories (QSR International, Victoria, Australia.). Approval for this study was provided by the Pennsylvania State University College of Medicine's Institutional Review Board.

Results

Demographics

Nineteen interviews were conducted before the researchers achieved thematic saturation. The sample included 12 family physicians, 5 general internists, 1 general practitioner, and 1 obstetrician-gynecologist. Nine PCPs were women. The median time in practice was 21 years, time in practice ranged from 1–38 years. Practices were located in 15 of the 28 target counties, 8 in rural zip codes and 11 in rural adjacent areas. PCPs spent at least 50% of their professional time in adult care per week. The predominant reasons for practicing in a rural area were being from a rural community and fulfilling loan repayment program obligations, visa requirements, or commitments to the National Health Service Corps.

Themes that emerged included the following: 1) PCPs identify mental illnesses through several mechanisms including routine screening, indicator-based assessment, and self-identification by the patient; 2) rural culture and social ecology are significant barriers to women in need of mental healthcare; 3) mental healthcare resource limitations in rural communities lead PCPs to seek creative solutions to care for rural women with mental illnesses; and 4) to improve mental healthcare in rural communities, both social norms and resource limitations must be addressed. These themes, with subthemes, are discussed and illustrated by representative quotes in the paragraphs below.

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Theme 1: PCPs identify mental illnesses through several mechanisms including routine screening, indicator-based assessment, and self-identification by the patient

Screening for mood or anxiety disorders is one of several strategies used by PCPs to identify these disorders among rural women—Approximately one-third of PCPs (6/19) reported screening for depression as part of a routine history. The frequency of screening varied from every visit, to annual visits only. Five PCPs reported performing an indicator-based assessment based on flagging problems in the patient's history, such as substance abuse. Other situations triggering assessment included the patient seeing multiple different physicians in a short period of time, frequent visits to the PCP within a short time frame, or general health conditions, such as pregnancy, in which depression or anxiety is known to be prevalent or particularly problematic. Nine PCPs also reported that their patients sometimes self-identified as needing mental health treatment, for example by requesting a "nerve pill." In contrast, four PCPs noted that *routine mental health screening for all women may not be feasible due to time constraints and competing priorities*. One PCP observed, "We do know our patients but we have limitations…you know, time and everything else." Another PCP commented, "I'll never treat their colon screening if I'm screening [for] PTSD."

Eleven PCPs reported that *somatic complaints are a common presentation of mental illnesses among rural women*. Somatization was viewed as a response to community stigma, as it is more accepted in the community to have an organic symptom than a mental illness. One provider said: "The only way we get to it is someone will come in with a belly ache or headache or 'I'm so tired, I don't sleep well.'" Another commented, "They always complain of something else—pain, fatigue, can't sleep, headaches, low-back pain, neck pain—all the physical manifestations of depression." Somatic symptoms triggered further assessment for mood and anxiety disorders.

Assessment for mental health conditions did not generally use a validated instrument—Two PCPs said they screen for mental illness as they review systems with each patient. "I mean every time someone comes in, the clinicians will go through a review of systems and they'll just go down the list: 'are you having any emotional problems?' So it's brought up every time." However, among those who reported screening for mental health conditions (6/19), only two reported using a validated, standardized instrument. The interval for screening varied - some screened at every visit, while others screened only at the annual visit.

Post-traumatic stress disorder (PTSD) may not be recognized as a woman's health problem or a rural health problem—The majority of PCPs (13/19) believed that PTSD prevalence is lower in rural areas compared to urban communities. One PCP noted, "Inner city, urban, warfare area I can understand it, but that's not part of our culture…" Some PCPs reported they would consider a PTSD diagnosis only if they knew there was history of traumatic events; others admitted that they were likely confusing the symptoms of PTSD with more familiar mental health diagnoses. "But again, I'm thinking about traumatic events which may affect our patients. I mean I put it all under depression."

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Two PCPs reported that PTSD was more prevalent in the male population. One noted, "… those soldiers are all coming in with PTSD, so they're a bunch of boys."

Theme 2: Rural culture and social ecology are significant barriers to women in need of mental healthcare

Low socioeconomic status exacerbates and complicates treatment of mental health problems in rural women—Most PCPs (12/19) noted that medical insurance restrictions limited their ability to provide optimal mental health care--patients either lacked coverage for mental health care or were underinsured. For example, insurance restrictions limited the number of visits allowed or required high copays for medications. One PCP reflected, "Much of that mental healthcare depends on their insurance…you want to get them on something really good for their depression and they just can't afford it." Another PCP associated rural poverty with a high prevalence of depression noting, "…usually people who are financially disturbed tend to be depressed."

Stigma around mental health issues in rural communities may prevent women from seeking care—PCPs observed that rural women may not want to be seen walking into the office of a mental health care provider due to fear of judgment by family and friends. Three PCPs reported that women do not bring up mental health because it is not socially acceptable. One PCP described "the barriers that they place on themselves because they don't want their relatives, friends or neighbors to know…" Another PCP commented, "They don't want to come in and talk about it. They would rather keep it kind of under the rug. Denial. Shame. Those are good words." PCPs observed that stigma was particularly salient for older rural women, "…the more elderly population doesn't see it as something you talk about." Rural culture was seen as as a barrier to promoting mental health discussions with doctors. "I don't think it's probably quite as acceptable here as it might be in a city where it's very common for women to sit around and talk about their anti-depressants and their shrink visits and things."

Patients may prefer to be seen by their PCP for mental health conditions due to ease of access as well as comfort with a known provider—About one-third of PCPs (7/19) noted that long travel time or lack of subspecialist practices in the area led to patients to receiving mental healthcare from their PCPs. Access issues were seen as particularly relevant to rural settings because, "a woman who lives in a city who is easily able to get a babysitter and go to a counseling center a half mile away is kind of in a little different world than a woman who lives in rural area." Two PCPs pointed out that their patients did not necessarily perceive access as a problem, because women prefer to receive mental healthcare from the physician they know. "They feel more comfortable with us, you're not sending them to a stranger that's gonna…have to get to know them and go through their whole history and everything, so sometimes it's just more reassuring to the patient if you take care of it."

Rural culture of self-reliance and independence may prevent help-seeking for mental illnesses—Three PCPs remarked that rural isolation promotes a culture of independence and self-reliance, which is perceived as a positive quality by their patients.

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One PCP explained, “There are people out there that are very independent, fiercely independent and don’t want any help from anyone—until they just can’t stand it anymore. And I think there is a certain degree of fierce independence out here because if you live in a rural area, particularly [if] you’re dealing with the farmers and the people who are living way out. They have to rely on themselves for a lot of things.”

Theme 3: Mental healthcare resource limitations in rural communities lead PCPs to seek creative solutions to care for rural women with mental illnesses

About three-quarters of PCPs (14/19) reported a *shortage of mental health professionals in their rural area*. Consequently, referrals were delayed, sometimes taking months. One PCP reported, “We do have…great difficulty in getting people in to the psychiatrist.” The PCPs felt that in order to improve mental health in rural areas, additional referral services should be available.

PCPs created informal networks of specialists to improve the quality of mental health care delivered to their patients—Three PCPs worked to find “someone to help us with the tough case.” These informal networks included local mental health providers who serve as consultants. Consultations were informal and performed by phone, “Generally in those situations you call—I have three or four psychologists/ psychiatrists in the area that I can call.” Another PCP reported seeking second opinions from mental health providers regarding better management of medications: “oftentimes it’s not that they will take over their mental health care, but they will at least see the patient maybe once or twice just to adjust medications more than anything.”

Rural PCPs practice mental healthcare outside their scope of comfort and training—Although PCPs generally reported feeling comfortable treating mild anxiety and depression, many (8/19) reported practicing outside their perceived capacity to manage more severe mental illnesses. “I’m treating the bipolar, the schizophrenic…things that I never thought I would be treating.” A PCP noted, “I do a lot of psychiatry in my practice that I really wish I didn’t have to do, but I do it because someone’s got to do it.” Four PCPs were uncomfortable with medications for treating depression and anxiety beyond selective serotonin reuptake inhibitors (SSRIs). “When they don’t do well with 40 mgs of [citalopram] or 100 mgs of [sertraline], that’s the time to do something and send them somewhere else.” Six PCPs felt particularly unprepared to manage patients with PTSD. “If I had a patient transferred to my practice with this diagnosis, then what is my next step? I have no idea what to do with them.”

Three PCPs reported that they and their local primary care colleagues were proactive about self-educating, expanding their expertise in mental healthcare to address the demand. “Some family physicians, they have more expertise and more comfort due to the lack of psychiatrists in our area, so they went ahead and educated themselves more and more about depression and they kind of took over for what I think the psychiatrists should do.”

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Theme 4: To improve mental healthcare in rural communities, both social norms and resource limitations must be addressed

Seven PCPs perceived *community and provider education to be a key to improving mental healthcare for rural women*. PCPs agreed that promoting education about mental health among patients will increase acceptance of mental health diagnoses, decreasing stigma and increasing the number of patients seeking help for emotional problems. Three PCPs reported that some patients do not seek help for their emotional problems because they do not perceive mental illness as a disease that can be treated and managed with the help of healthcare providers. In this case, it would be helpful to inform patients that mental illnesses are like other chronic diseases. "I tell them, depression is a disease just like diabetes."

Increasing access to subspecialty mental health care will improve mental healthcare for rural women—Seven PCPs agreed that "quicker access to care" would relieve the burden upon the primary care sector. Six PCPs also mentioned the need to recruit more mental health subspecialists to underserved rural areas to improve care of more complex patients.

Discussion

This study of PCPs providing care to low-income rural women confirms that characteristics of rural communities and patients limit PCPs' ability to adequately treat mental health concerns and suggests strategies to improve the delivery of services. This study represents an important contribution because it focuses on rural communities and possible targets for interventions in rural primary care practices.[34]

Rural PCPs reported screening for mental health problems when indicated by persistent somatic complaints with no organic cause, risky behaviors and social factors. However, they did not often conduct routine screening using validated instruments, consistent with prior studies.[22,35] Although our data suggest this method of identifying mental health disturbances is common among rural PCPs, it is not effective compared to routine screening with validated instruments, which is known to increase the identification of mental illnesses.[35] Routine screening has been recommended as a way to alleviate under-diagnosis of mental illness in primary care.[36] Thus, it is likely that the rural PCPs in our study, like their better-studied non-rural counterparts, under-identified mental health illnesses. Lack of screening may in part explain why 50% to 75% of mental health conditions in rural healthcare settings are undiagnosed.[9]

Our finding that rural PCPs perceive supports for mental health care to be inadequate is particularly salient in light of current guidelines. The U.S. Preventive Services Task Force (USPSTF) December 2009 guideline for depression screening in adults recommends screening for depression only "when staff-assisted depression care supports are in place to assure accurate diagnosis, effective treatment, and follow-up, (Grade B)" and further "recommends against routinely screening adults for depression when staff-assisted depression care supports are not in place," noting, "there may be considerations that support screening for depression in an individual patient."[19] PCPs in our study reported a lack of adequate systems for mental illness treatment in rural communities. This perception is

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grounded in reality – in 2005 only 7.4% of all U.S. psychiatrists practiced in a rural area.[37] While current guidelines do not necessarily support routine screening for depression in these circumstances, individualized screening decisions are appropriate. However, due to deficiencies in appropriate referral resources, and in accordance with current guidelines, our data suggest that rural PCPs would be even less likely than their non-rural counterparts to screen for depression.

Our results suggest that under-identification of PTSD among women in rural primary care may be particularly problematic, as some rural PCPs may not perceive PTSD to be prevalent among women or rural residents, other than male military veterans. This is consistent with other literature in which noncombat trauma was not recognized by PCPs as a precipitant of PTSD.[38] It is also consistent with calls to increase identification of PTSD due to the large burden of traumatic events which may precipitate PTSD in patient populations.[39] Prior research has shown that PTSD is underdiagnosed in urban primary care,[23] but, to our knowledge, has never examined this issue specifically in rural populations. Our data also indicate that some rural providers may not adequately assess trauma history, given the perception that rural communities are generally peaceful. Recognition of PTSD is also likely limited by lack of screening guidelines. The USPSTF does not specifically comment on screening for PTSD. Great Britain's National Institute for Clinical Excellence (NICE) 2005 guidelines and the American Psychiatric Association 2008 guidelines on PTSD both recommend screening when there is a known history of traumatic events,[40,41] but do not specifically address how to identify trauma history or whether to do so routinely. Thus, although our data suggest that PTSD is underdiagnosed among rural women, more information is needed on how to effectively assess trauma history and PTSD in this population.

The PCPs in our study noted that social stigma is a significant obstacle to seeking mental healthcare in rural communities. This is of great concern because stigma has been shown to perpetuate a cycle of disease, increase the duration of untreated illness and increase the economic burden on society.[42] Providing mental healthcare in PCPs' offices, rather than in mental health specialty sites, as suggested by some of the PCPs in our study, offers a partial solution.[12,43] Public health education to reduce mental health stigma may improve help-seeking by patients[44] and help to demystify mental illnesses and their treatments.[45] Our data suggest that these public health efforts may be particularly effective in rural communities where stigma remains a significant barrier to women's help-seeking for mental health.

Prior training of PCPs may not prepare them to manage complex mood or anxiety disorders in rural practices. This is consistent with prior reports that suboptimal mental health education during residency, particularly as it pertains to rural settings,[46] and inadequate funding and opportunities for continuing education[17] contribute to poorer mental healthcare. Self-education, an approach offered by some PCPs in our study, is an important target for future research. Prior studies have shown that improving medical education for primary care physicians would have a greater impact on mental health outcomes than increasing the number of specialist mental health providers.[9] Many rural PCPs in our study were open to educational opportunities, eager to learn more about a breadth of mental illnesses, and accepted their role as primary mental healthcare providers. Thus, expanding educational

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opportunities in women's mental health to rural PCPs is an important strategy to improve mental healthcare for rural women.

Some of the PCPs in our study developed informal networks of colleagues to assist with care of the most complex mental health patients. Formalizing and expanding these consultative networks offers an intriguing alternative to telehealth models in which a remote mental health practitioner interacts directly with a patient. Telehealth consultation models, which were informally utilized by the PCPs in our study, may address the shortage of mental health care providers in rural areas,[46,47] accelerate delivery of care, and increase confidence and knowledge of PCPs for medication management.[46,47] Networks that establish consultative communication between rural PCPs and non-rural specialist providers may also mitigate the concern that the patient–physician relationship can suffer adversely from telehealth models in which providers and patients do not interact face-to-face.[48] Cultural competency may be an issue for telehealth providers who interact directly with patients but are unfamiliar with their communities.[49] Thus, in telehealth consultation models, the rural PCP acts as an intermediary between the outside consultant and the rural patient. Because the rural PCP is more versed in cultural issues specific to rural patients, she is better positioned to translate the consultative recommendations into effective treatments.

Our study has several limitations. First, the experiences and opinions of PCPs practicing in Central Pennsylvania may not be representative of other rural areas. Second, the rural areas in our study have largely non-Hispanic white populations, so minority patients are not well represented in these PCPs' practices. Third, our small sample was not designed to detect differences in response patterns by PCP characteristics such as gender, practice type, or time in practice.

Conclusions

Improving mental healthcare for rural women will require multiple interventions. First, PCPs serving rural populations should be encouraged to increase identification of mental health disorders among their female patients. Many brief, standardized instruments are useful in primary care settings to screen for depression[50] including a two question screen.[51] A brief screening tool would help to address the concerns raised by our participants that competing time demands limit screening for depression[51] or trauma history. Better guidelines for screening of anxiety disorders[1] and assessment of trauma history are needed. More data is also needed regarding the prevalence of traumatic exposures and PTSD in rural areas, as some rural PCPs perceive that PTSD is rare in rural communities, making it less likely they will assess for it.

Improving resources to treat mental health conditions, once they are identified, is another critical target for intervention. The American College of Preventive Medicine suggests that all primary care practices have systems of care in place for patients identified with depression,[51] and we further suggest that these systems should be flexible to support primary care physicians in their treatment of all mental illnesses. Current national efforts are focused on creating collaborative programs that integrate behavioral health with primary care health.[52] Effective consultative networks between PCPs and mental health providers

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can bridge the gap between PCP training and care of the complex psychiatric patients, creating a collaborative medical care model. Telehealth has previously been suggested as an effective solution to the lack of subspecialty mental health care providers,[53] is supported by federal policy,[54] and has been found to be an acceptable solution among both PCPs and patients.[55] Expanding and formalizing telehealth consultation networks, and working to overcome reimbursement issues for telehealth services,[56] should be a target of future research to improve the quality of mental healthcare provided to rural women.

Finally, public health education in rural areas should focus on ways to effectively address stigma and perception of mental illness to encourage help-seeking. Education must be tailored to the rural setting, as culturally appropriate mental health services would reach and treat more patients.[57]

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgements

The authors thank our participants.

Source of Funding: The Rural Women's Healthcare Project was supported by a grant from the Penn State CTSI, USL1RR033184. Dr. McCall-Hosenfeld's effort on the project was supported by Award Number K12HD055882 (Penn State BIRCWH Program) from the Eunice Kennedy Shriver National Institute of Child Health and Human Development. The content is solely the responsibility of the authors and does not necessarily represent the official views of the Penn State CTSI, the Eunice Kennedy Shriver National Institute of Child Health and Human Development or the National Institutes of Health.

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Table

Primary Care Providers' Perceptions – Mental Healthcare for Rural Women

Themes	Subthemes
PCPs identify mental illnesses through several mechanisms including routine screening, indicator-based assessment, and self-identification by the patient.	**1** Screening for mood or anxiety disorders is one of several strategies used by PCPs to identify these disorders among rural women. **2** Routine screening for all women may not be feasible due to time constraints and competing priorities **3** Most PCPs somatic complaints are a common presentation of mental illnesses among rural women **4** Assessment for adverse mental health conditions did not generally use a validated instrument. **5** Post-traumatic stress disorder (PTSD) was not recognized as a woman's health problem or a rural health problem.
Rural culture and social ecology are significant barriers to women in need of mental healthcare.	**1** Low socioeconomic status exacerbates and complicates treatment of mental health problems in rural women. **2** Stigma around mental health issues in rural communities prevents women from seeking care. **3** Patients often prefer to be seen locally, or by a known provider for mental health conditions. **4** Rural culture of self-reliance and independence prevents help-seeking for mental illnesses.
Mental healthcare resource limitations in rural communities lead PCPs to seek creative solutions to care for rural women with mental illnesses.	**1** PCPs reported a shortage of mental health professionals in their area **2** Many rural PCPs created informal networks of specialists to improve the quality of mental health care delivered to their patients. **3** Rural PCPs practice mental healthcare outside their scope of comfort and training.
To improve mental healthcare in rural communities, both social norms and resource limitations must be addressed	**1** PCPs perceived community and provider education to be a key to improve mental healthcare for rural women **2** Increasing access to subspecialty mental health care will improve mental healthcare for rural women.