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Research paper

# Depression as seen through the eyes of rural Chinese women: Implications for help-seeking and the future of mental health care in China

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ABSTRACT

*Background:* As part of a larger epidemiological study of depression among rural Chinese women, we sought to understand their explanatory models of depression. We explored how participants describe depression, to what cause they attribute depression, and what sources of treatment they would recommend.

*Methods:* Participants first were assessed with the Center for Epidemiological-Depression scale (CES-D), with a cut-point of 16 or greater indicative of depression. The Short Explanatory Model Interview (SEMI), a semi-structured questionnaire, was our primary tool for exploring participants' explanatory models relating to a vignette describing a rural Chinese woman with depression.

*Results:* Among the 416 women who consented and completed the SEMI, 277(66.6%) reported that the woman in the vignette had something wrong with her health. Among these, only 8(2.9%) women provided a specific psychiatric name for the condition, while 150(54.2%) provided non-specific psychiatric disease names or affective symptoms, and 78(28.2%)of the sample provided physical disease names. Participants attributed causes largely to internal factors (41.5%) or external factors (36.8%). In terms of help-seeking, 101(36.4%) said the woman in the vignette should see a doctor, 70(25.3%) indicated that she should solve the problem herself, and 42(15.2%) recommended seeking support from family members and friends. We did not find any differences in recognition, causal attribution, and help-seeking suggestions between women with a CES-D $\geq$ 16 and those with CES-D $<$ 16.

*Limitations:* The use of a vignette to prompt discussion was not the same as talking about real-life personal situations.

*Conclusion:* Our results point to potential challenges and opportunities that lay ahead as China develops mental health services in its vast rural areas among women who may be at risk for developing depression. We found that our participants often attributed their symptoms to internal or external social causes, and preferred not speaking with family members and friends. Our findings suggest that rural Chinese women may be reticent to recognize or describe categorical concepts such as "depression" as a health problem, and they invite further consideration about how best to develop new health services in China's rural regions.

## 1. Introduction

Depression is an important cause of long-term disability and a massive economic burden worldwide (Chen et al., 2015a; Vos et al., 2012). In China, neuropsychiatric disorders rank highest in terms of disability-adjusted life year (DALY), according to the World Health Organization, with depressive disorders accounting for the majority of these disorders (Murray and Lopez, 2000). In a manner similar to Western nations, the reported rate of major depressive disorder in China is higher among women than among men (2.60% vs. 1.55%), and the rate of depression in rural regions (2.24%) is higher than in urban areas (Phillips et al., 2009). One reason for the increased burden of depression among rural women may relate to the changing roles such women have encountered due to migration. As the primary care givers in the family, rural women often are among the "left behind," while their spouses and older children seek employment in urban centers and industrial zones.

We recently found that 236 of 1898 women in rural Sichuan scored 16 or greater on the Center for Epidemiologic Studies Depression (CES-D) scale (Qiu et al., 2016). However, of these women, 49.8% women

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expressed symptoms consistent with a clinical diagnosis of depression as coded on the MINI International Neuropsychiatric Interview (MINI), while a sizable group did not (Qiu et al., 2016). This suggests that a substantial proportion of significant "distress," as reported in rural areas of China, may not be consistent with Western constructs of "depression". Both significant psychological distress and symptoms consistent with a diagnosis of depression are associated with poor health outcomes in the Chinese population (Chiu et al., 2012, Feng et al., 2015, Li et al., 2009). Before embarking on large efforts to address depression, it is important to understand how women understand the nature of their own complaints—an issue of growing importance in light of plans to develop more accessible mental health services in rural regions of China.

Jorm et al. introduced the concept of mental health literacy (MHL) in 1997. They used this term to refer to knowledge and beliefs about mental disorders which aid their recognition, management, or prevention. The concept of MHL is multifaceted and includes: (a) the ability to recognize symptoms of mental illness, (b) knowledge of causes of mental disorders, (c) beliefs that promote recognition and seeking appropriate help, (d) knowledge of lay sources of help, and (e) professional sources of help (Jorm et al., 1997). A growing number of studies show low recognition rate of common mental disorders among various population across the world (O'Connor et al., 2014). The few MHL studies in China have found low levels of recognition of mental disorders (Wong et al., 2012; Yu et al., 2015). In contrast to Western populations, a much lower proportion of Chinese people seek help from health professionals for mental illness, estimated at eight percent as compared with approximately 30–50% in Western nations (Bland et al., 1997; Phillips et al., 2009; Roy-Byrne et al., 2000). These results invite exploration of what rural Chinese women say about personal distress, to what they attribute causes, and what types of treatment they would seek or accept. As part of our prior study, we took the opportunity to examine these issues in greater depth.

Previous studies have shown that personal beliefs about the cause of depression, the effectiveness of treatment, and perceived stigma of seeking treatment are all associated with help-seeking behaviors (Atkins et al., 2015; Brown et al., 2001; Chen et al., 2015b; Dwight-Johnson et al., 2000; Edlund et al., 2008). The notion of a personal explanatory model of illness was first described by Kleinman and refers to a person's representation of disease: its cause, symptoms, and course, as well as the effects of treatment. Such representations are associated with treatment adherence and the extent individuals believe in control over personal health status (Lee et al., 2007).

In this qualitative study using the Short Explanatory Model Interview (SEMI)(Lloyd et al., 1998), we assessed the ways in which Chinese women living in rural Sichuan Province discussed depression, with particular attention to their causal attributions and to their thoughts about treatment. We used a vignette describing a depressed rural woman to elicit responses to three components of an explanatory model. With its large number and a heavy proportion of rural residents, our study region in Guangyuan City was predominantly rural, as is the rest of Sichuan (Xiong, 2012).

## 2. Methods

This study involved a subset of participants from a larger epidemiological study that assessed the prevalence of depression and diagnosed psychopathology, with associated factors, among rural women residing in Guangyuan City (Hou et al., 2015; Qiu et al., 2016). Guangyuan City includes three districts and four counties, with a population of 2.48 million, 820,000 urban (33.1%) and 1.66 million rural (66.9%). The average annual net 2012 income for rural residents was ¥5649 (approximately $911) and the average living expenses were ¥4406 (approximately $711) (Xiong, 2012). This is one of the most economically underdeveloped regions in the province.

### 2.1. Sampling and procedures

The parent study used multi-stage sampling to recruit a random socio-economically diverse sample, resulting in the selection of three rural towns within the region, and from them, three to five villages each. The sample is thus drawn from 13 villages in total. For more information on the larger study, see papers that we have published (Hou et al., 2015; Qiu et al., 2016). Recruitment was accomplished using a door-to-door survey. Women residing in the 13 villages were eligible to be included if they were aged 16 years and older (16 years is the age of consent in China) and if they had been living locally for at least two years. We excluded women if they had a previous diagnosis of severe mental illness or cognitive problems thought to impede their abilities to comprehend the questions. Participants were compensated for their time with toiletry items (such as toothpaste and soap) worth 5 Yuan (about 0.8 USD). The Ethics Committee of Sichuan University approved the protocol, and the University of Rochester Research Subjects Review Broad approved analyses of the de-identified data.

For this paper, we wanted to explore women's explanatory models of depression by asking rural women to respond to a vignette describing a woman struggling with depression. We invited all women with depressive symptoms to participate. We also applied probabilistic sampling to include every fifth woman without depressive symptoms in the qualitative study. All participants provided oral consent, which included advice that they had the option to discontinue the interview at any time.

### 2.2. Measures

As part of the parent study (Qiu et al., 2016), participants answered a socio-demographic questionnaire, including age, marital status, education, occupation, ethnic background, religion, and household income, and completed the CES-D. This self-report inventory contains 20 items, for which respondents indicated the frequency of symptoms during the previous week using a scale of 0–3: 0 – less than a day; 1 – 1–2 days; 2 – 2–3 days; and 3 – 5–7 days (Sheehan et al., 1995). The CES-D taps a very wide spectrum of symptoms, making it useful as a broad measure of individual's depressive symptoms. A score of 16 or higher indicates the likely presence of depressive symptoms (Chin et al., 2015b; Qiu et al., 2016; Sheehan et al., 1995; Zhang et al., 2012).

We used the Short Explanatory Model Interview (SEMI), a semi-structured questionnaire, as our primary tool for exploring participants' explanatory models. Loyd and his colleagues developed the SEMI based on Kleinman's theory on Explanatory Models (EMs) (Kleinman, 1977), which can be used to better understand "notions about an episode of sickness and its treatment that are employed by all engaged in the clinical process," involving local cultural perspectives, values, and language (Lloyd et al., 1998; Nambi et al., 2002). The SEMI includes open-ended questions aimed at eliciting patient experiences and attitudes about illness. The survey structure includes six sections, which can be used separately or together: Health & Illness, Perceived Severity, Expectation & Satisfaction, Activities & Functioning, Other Health Behaviors, and Vignettes. For this study, we focused on Vignettes. The purpose of this section is to present a narrative that describes a hypothetical person with the illness of interest. Using vignettes to reveal personal beliefs and experiences has been shown to be beneficial in research focused on sensitive topics such as depression, where participants may not be comfortable discussing their own situations.

The vignette we used described a rural Chinese woman with depression. Developed with input from Chinese clinicians and researchers, special attention was paid to ensure that the details of the vignette would be consistent with the contexts in which the participants live.