

# Psychiatric Epidemiology and Mental Health Service in the Tibet Autonomous Region of the People's Republic of China

Liang XIE,<sup>1#</sup> Geng WEI,<sup>2#</sup> Yan XU,<sup>3</sup> Yueqin HUANG,<sup>4</sup> Xiehe LIU,<sup>1</sup> Tao Li,<sup>1</sup> Wan-jun Guo<sup>1\*</sup>

**Summary:** Little is known internationally about the psychiatric epidemiology and mental health services in Tibet. This article reviews the relevant research of psychiatric epidemiology and mental health services in the Tibet Autonomous Region (TAR), P. R. China. There is a substantive number of people suffering from mental disorders and psychological problems in an area with a general lack of modern mental health institutions and professionals.

**Key words:** Tibet; Mental health; Psychiatric epidemiology; Service

[*Shanghai Arch Psychiatry*. 2018; **30**(2): 127-130. doi: <http://dx.doi.org/10.11919/j.issn.1002-0829.217148>]

The Tibet Autonomous Region (TAR) is a province-level administrative division of China, referred to as Tibet, which is located in the southwest of China, and in which the Tibetan people account for 90.48 percent of the total population.<sup>[1]</sup> Due to the geographical environment of the plateau and the relatively backward economic conditions, the medical conditions in Tibet were very poor before the “peaceful liberation”.<sup>[2]</sup> After that, the Chinese government invested huge resources into health care in Tibet. Tibetan farmers and herdsmen had been enjoying free basic medical care from 1950s to 1980s. In 2002, the number of doctors and beds per thousand population in the ART were 1.55 and 2.13, roughly equivalent to national average. Its per capita medical expense of the financial expenditure was 3.3 times the Chinese average in 2003.<sup>[2]</sup> The life expectancy of the Tibetan people had increased from 35.5 years old in 1951 to 67 years old in 2006.<sup>[2]</sup> However, there is a general lack of literature introducing mental

health in Tibet, especially in English, with the result being that little is known internationally about mental health conditions in the TAR. Therefore in this article we reviewed the literature related to the psychiatric epidemiology and mental health services in the TAR.

The first major psychiatric epidemiological survey in the TAR was performed in 2003.<sup>[1,2]</sup> It interviewed 5375 respondents (aged ≥15 years) sampled by the stratified cluster randomized method using screening questionnaires including the Mental Health Screening Inventory, Neurosis Screening Inventory, Screening Inventory for Alcohol Dependence and Related Problems, Child Intelligence Screening Inventory, and a questionnaire for the Detection of Epileptic Seizure. Those with a positive response and 10% of those with negative response to the screening were further interviewed using the Structured Clinical Interview for DSM- IV Axis I Disorders (research version) (SCID-

<sup>1</sup> Mental health Center, West China Hospital, Sichuan University, Chengdu, Sichuan, P. R. China

<sup>2</sup> Mental Health Center, Xi Hua University, Chengdu, Sichuan, P.R. China

<sup>3</sup> Biorepository, State Key Laboratory of Biotherapy, West China Hospital, Sichuan University, Sichuan, P.R. China

<sup>4</sup> Peking University Sixth Hospital, Peking University Institute of Mental Health, Key Laboratory of Mental Health, Ministry of Health (Peking University), National Clinical Research Center for Mental Disorders (Peking University Sixth Hospital), Beijing, China

\* correspondence: Wan-jun Guo. Mailing address: Mental health Center, West China Hospital, Sichuan University, Chengdu, Sichuan, P. R. China. Postcode: 610041. E-Mail: [guowjcn@163.com](mailto:guowjcn@163.com).

# Equal contributions to this work

l). It was reported that the time-point prevalence estimates of mood disorders, schizophrenia, organic mental disorders, acute transient psychotic disorder, neuroses, alcohol use disorders, alcohol dependence, mental retardation and epilepsy were 0.48%, 0.34%, 0.17%, 0.037%, 2.56%, 4.06%, 2.90%, 0.28%, and 0.68% respectively; their lifetime prevalence rates were 0.56%, 0.37%, 0.17%, 0.037%, 2.62%, 4.24%, 3.08%, 0.28%, and 0.72%. Because of the linguistic and cultural barriers between the interviewers (Han nationality psychiatrists and their Tibetan translators) and interviewees, and the complexities of the interview instruments being used, this survey was considered to be insensitive, and may have underestimated the actual prevalence rate. Note-worthily, a survey focusing on alcohol use disorders among Tibetan farmers living in suburban counties of Lhasa City reported a much higher current prevalence estimate of alcohol use disorders (16.2%) and alcohol dependence (13.5%), though its methodology was not comparable to the aforementioned major survey, because its diagnoses were based on the cutoffs ( $\geq 10$  for use disorders, and  $\geq 13$  for dependence) of the Alcohol Use Disorders Identification Test (AUDIT).<sup>[3]</sup>

Very recently (from July 2013 to March 2015), the first national representative cross-sectional survey of mental disorders and mental health services in China, the China Mental Health Survey (CMHS) completed its field survey.<sup>[4-5]</sup> The CMHS surveyed a nationally representative sample including 32,522 adult respondents in general communities, and covered all 31 provincial-level administrative regions across China including the TAR. As a result, CMHS is the first Chinese “national” multi-regional psychiatric epidemiological survey that covered the TAR. According to the preliminary release of the results of the CMHS on World Health Day (April 7, 2017, organized by the National Health and Family Planning Committee [Ministry of Health] of China<sup>[6]</sup>) the 12-month prevalence estimates of mood disorders, anxiety disorders, and alcohol use disorders were 4.06%, 4.98% and 1.84%, the 30-day prevalence estimates of psychotic disorders was 0.61%, and the estimate of dementia in the people aged 65 years and over was 5.56%. However, because that sample was only nationally (rather than provincially) representative, the data from the TAR were not reported separately.

In addition, there are many surveys regarding mental health in specific populations such as soldiers, students and teachers living in the TAR. Those studies usually used self-report scales, mostly the symptom checklist (SCL-90). The most consistent finding of these kinds of surveys is that soldiers on active duty in the TAR have more severe scores than the Chinese norm,<sup>[12-17]</sup> which is associated with environmental factors and individuals’ susceptibilities.<sup>[7]</sup> Furthermore more than 1/3 of soldiers had poor sleep quality.<sup>[19]</sup> A study documented the poor mental health conditions of police in the TAR by reporting that the scores of all nine

factors of SCL-90 were higher than the national norm.<sup>[8]</sup> Similarly, occupational burnout was reported by more than 40% teachers in the Qamdo Prefecture of the TAR; surveys using SCL-90 also found that more than 40% of university teachers in Tibet had psychological problems.<sup>[9]</sup> Evidence indicated that Tibetan college students have a relatively better employment psychology and consumer attitudes, but their mental health problems are substantive (though might not be significantly poorer than their Han counterparts).<sup>[10]</sup> Accordingly, the aforementioned surveys in specific populations mostly using self-report scales indicate that mental health problems may be more common in the TAR.

Due to the profound influence of Tibetan Buddhism on their daily life, Tibetans with mental health problems sought spiritual support and psychological consolation mainly from the Buddha and the monks in addition to family and neighborhood members before the modern medical model was introduced into Tibet. They may also seek treatment from Tibetan medicine, though there is sparse evidence that this is an effective strategy to treat mental disorders, especially when placebo effects are not included. According to the official data of 2012,<sup>[11]</sup> the TAR had 6412 grass-roots health care institutions and 104 hospitals, including 98 public hospitals and 6 private hospitals, in which 4043 licensed physicians (including physicians and physician assistants) and 1732 registered nurses worked. Unfortunately, none of them specialized in mental health or psychiatry. Due to the lack of mental health professionals, most patients with mental disorders have not been correctly diagnosed and treated even they have sought treatment in institutions that provide medical services. A study in 2001 surveyed 119 patients that sought treatment in the departments of internal medicine and emergency medicine of a general hospital, and found that 29 cases (24%) of the patients met criteria for a mental disorder according to DSM-IV (depression: 8 cases, anxiety: 9 cases, schizophrenia: 2 cases, bipolar disorder: 2 cases, dysthymia: 2 cases, sleep disorders: 2 cases, brief psychosis: 1 case, organic mental disorders: 1 case, chronic alcoholism: 1 case, and alcohol induced acute psychosis: 1 case. But only 7 (24%, 5 cases of depression and 2 cases of schizophrenia) of the 29 cases were identified as mental disorders by their physicians. Among those 7 cases, only 1 case had been prescribed the correct kind of medication, but its dosage remained too low to receive a treatment response. Furthermore, 4 of the 29 cases received previous treatment in a facility outside of the TAR but had relapsed at the time because of a discontinuation of effective treatment.<sup>[12]</sup> In addition, according to an official report, there are only 33 cases of mental disorders that were diagnosed and treated in the whole TAR in 2001, and only 16 (48%) of them reported some relief after treatment. A study on the misdiagnosis of 52 cases of anxiety for hysteria research pointed out that the main reason for misdiagnosis was a lack of mental health expertise in local doctors.<sup>[13]</sup>

The poor condition of modern mental health service has changed at least somewhat since 2004, from when psychiatric services formally began in the TAR. At that time, the first psychiatric outpatient unit in a major hospital (the People's Hospital of Tibet Autonomous Region) was opened by a fully-trained psychiatrist. Although it was closed 4 years later with the departure of the psychiatrist, over one thousand patients with mental disorders were treated over those 4 years. After that, modern mental health services in the TAR further developed, though slowly. Over the same period that the only first psychiatric out-patient unit was opening, a hospital mainly serving policemen in Lhasa started a psychological counselling center by a physician who was trained in clinical psychology. A team of neurologists who received training in psychiatry also provided mental health treatment for patients with mild to moderate depression and anxiety in the People's Hospital of Tibet Autonomous Region; they also identified some patients with severe mental disorders such as schizophrenia, bipolar disorders and transferred them to mental health institutions outside of the TAR (such as Chengdu in Sichuan province and Beijing). In addition, with the broadening of the coverage of medical insurance in recent years, more Tibetan patients and their care givers have spontaneously tried to seek effective treatment in mental health institutions outside of the TAR. According to the data from the Mental Health Center of West China Hospital, the number of patients from the TAR has substantively increased in recent years. For example, the number of patients from the TAR who were admitted to the wards of the center was only 135 for the period from January 1990 to October 2002,<sup>[12]</sup> but the number reached 149 and 348 for the years of 2011 and 2016 respectively. Such kind of long-distance mental health service seeking, however, is costly in time, traffic, as well as human resource (most of the patients have to be accompanied by their family members or relatives). Being aware of the heavy burden associated with having to seek mental health services long-distance and in order to help more patients receive effective treatment, in 2012 the government established 3 mental health institutions in 3 major cities (Lhasa, Shigatse and Qamdo). Among them, the project for the first institution which is located in the Second People's Hospital in Lhasa was completed in 2014, and a trained psychiatrist is now working in this institution.

A study has shown that SSRIs and SNRIs were the most commonly used antidepressants in the people's hospital of Tibet in 2014.<sup>[14]</sup> Since 2014, some psychiatrists from Sichuan (The Fourth People's Hospital of Chengdu) and Chongqing (Chongqing Mental Health Center) have come to the TAR, and supplied mental health services and training. In 2017, the grass-roots doctors who had passed mental health training in Sichuan (West China Hospital, Sichuan University) received qualification for local mental health service. It seems that a glimmer of hope for modern mental health services in the TAR is emerging.

To summarize there are substantial unmet mental health services needs in the TAR, primarily due to a lack of resources and professionally trained staff. To overcome such conditions, an effective plan for developing mental health services in the TAR is urgently needed. In addition to building mental health institutions in major cities, effectively training and providing privileges to the widely-distributed grass-roots health care practitioners and other relevant clinical professionals such as neurologists to treat mild to moderate mental disorders, and health education to improve mental health awareness for the general population should be considered.

#### Funding statement

This study is funded by the Special Research Project for the Non-profit Public Service of the Ministry of Health (Grant 201202022) and the National "Twelfth Five-Year Plan" for Science & Technology supported by the Ministry of Science and Technology (Grant 2012BAI01B01).

#### Conflict of interest statement

The authors declare no conflict of interest.

#### Authors' contributions

Wan-jun GUO, Tao LI and Xiehe LIU conceptualized the study; Liang XIE and Geng WEI carried out the literature search and data analysis; Liang XIE, Geng WEI and Wan-jun GUO interpreted the findings and drafted the manuscript; All authors were involved in revising the manuscript.

## 中国西藏自治区的精神疾病流行病学及精神卫生服务

谢靓, 魏赓, 徐艳, 黄悦勤, 刘协和, 李涛, 郭万军

**概述:** 西藏自治区的精神疾病流行病学和精神卫生服务情况在国际上鲜有提及。本文综述了中国西藏自治区的精神疾病流行病学和精神卫生服务以及相关研究。目前在西藏, 有很多人存在精神障碍和心理问题, 但

由于缺乏现代精神治疗机构和专家, 仍有很多的治疗需求没有被满足。

**关键词:** 西藏, 精神卫生, 精神疾病流行病学, 服务

## References

1. Wei G, Liu SM, Zhang W, Xiang Y, Huang XQ, Yang C, et al. [Epidemiological investigation on mental disorders at Tibet in China: I. major psychiatric disorders]. *Zhongguo Shen Jing Jing Shen Ji Bing Za Zhi*. 2008; **134**(10): 601-604. Chinese
2. Liu SM, Wei G, Zhang W, Xiang Y, Huang XQ, Yang C, et al. [Epidemiological survey on neuropsychiatric disorders in Tibet of China: neuroses, alcohol-related disorders, mental retardation and epilepsy]. *Sichuan Da Xue Xue Bao Yi Xue Ban*. 2012; **43**(2): 210-213, 225. Chinese
3. Guo W, Lanzi G, Luobu O, Ma XH, Zhen P, Ji YL, et al. An epidemiological survey of alcohol use disorders in a Tibetan population. *Psychiatry Res*. 2008; **159**: 56-66. doi: <http://dx.doi.org/10.1016/j.psychres.2007.09.012>
4. Huang Y, Liu Z, Wang H, Guan X, Chen H, Ma C. et al. The China Mental Health Survey (CMHS): I. background, aims and measures. *Soc Psychiatry Psychiatr Epidemiol*. 2016; **51**: 1559 - 1569. doi: <http://dx.doi.org/10.1007/s00127-016-1270-z>
5. Liu Z, Huang Y, Lv P, Zhang T, Wang H, Li Q, Yan J. et al. The China Mental Health Survey: II. Design and field procedures. *Soc Psychiatry Psychiatr Epidemiol*. 2016; **51**(11): 1547-1557. doi: <http://dx.doi.org/10.1007/s00127-016-1269-5>
6. Chen H, Liu Z, Huang Y. The research results of the China Mental Health Survey (CMHS) were published. [Internet] Beijing: Peking University Health Science Centre; 2017 [cited 2017 Apr 19]. Available from: <http://bynew.bjmu.edu.cn/zhxw/2017n/188244.htm>
7. Li X, Chen H. [Mental health status and its influence factors of soldiers in Tibet plateau]. *Xizang Yi Yao Za Zhi*. 2007; **28**(1): 21-23. Chinese
8. Jia SS, Li YQ, Song B. Investigation report of Tibet police's mental health. *Management Observer*. 2012; **25**: 106-107
9. Long QZ, Jiao XQ. [The relationship between coping styles and mental health in Tibet young college teachers]. *Xizang Ke Xue Ji Shu*. 2012; **6**: 40-41, 52. Chinese. doi: <http://dx.chinadoi.cn/10.3969/j.issn.1004-3403.2012.06.012>
10. Wei XB, Ma HL, Gao L, Ma L. [Analysis on the mental health status of Tibetan freshmen from 2008 to 2014]. *Zhongguo Xue Xiao Wei Sheng*. 2017; **2**(38): 231-234. Chinese. doi: <http://dx.chinadoi.cn/10.16835/j.cnki.1000-9817.2017.02.021>
11. Center for Health Statistics and Information, Ministry of Health. [China Health and Family Planning Statistical Yearbook 2013]. Beijing: China Union Medical University Press; 2013. Chinese
12. Wei G, Liu XH, He X, Wujin B. [A primary survey of the Tibet mental health service status]. *Zhong Hua Jing Shen Ke Za Zhi*. 2004; **37**(2): 102-102. Chinese. doi: <http://dx.chinadoi.cn/10.3760/j.issn:1006-7884.2004.02.016>
13. Liu JW, Li JX, Zhi L, Wen XF, Ren J, Hu JH, et al. [Analysis of 52 anxiety cases were diagnosed as hysteria in a hospital in Tibet]. *Lin Chuang Wu Zhen Wu Zhi*. 2007; **20**(4): 52-53. Chinese. doi: <http://dx.chinadoi.cn/10.3969/j.issn.1002-3429.2007.04.042>
14. Liu L, Degi. [Analysis of antidepressant drugs used in outpatient department of People's Hospital of Tibet Autonomous Region in 2014]. *Xizang Ke Xue Ji Shu*. 2016; **2**: 43-44, 48. Chinese. doi: <http://dx.chinadoi.cn/10.3969/j.issn.1004-3403.2016.02.016>



Liang Xie obtained an MD from Sichuan University in 2007. He has been working at the West China Hospital of Sichuan University since 2007, where he is currently an attending doctor. His research interest focuses on addiction medicine.