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The Integration of Mental Health Care in Rural Iran

Iran's rural mental health care system emerged in a context that included experiments in health care prior to the 1979 Revolution and the establishment of a primary health care (PHC) system after the Revolution. Beginning in the 1980s, Iran integrated mental health care into the existing PHC system by treating mental illness much like a communicable disease. Iran advanced treatment options compatible with the existing system, added new training for existing care providers, and incorporated specialists. The integration of mental health care led to the rapid improvement of health outcomes. The integration also created the unintended consequence of privileging pharmaceutical treatments and overlooking mental illnesses affected by somatization.

Keywords: Health Care; Mental Health; Psychiatry; Psychology; Public Health System; Community Health Worker; Primary Health Care

Historically, Iran has grappled with how to address mental illness among its rural citizens. Using the World Health Organization's (WHO) standardized metrics for measuring the costs of mortality (years lost to early death from a condition) and the costs of morbidity (disability from years lived with a condition),[1] multiple studies have revealed the significant burden that mental illness places on Iranian society. Major depressive disorder was the single leading contributor to Iran's morbidity costs in 2003.[2] A 2017 study shows that the costs of morbidity from depressive disorders has only increased over the past ten years.[3] The societal burden of mental illness has only increased.

The use of these standardized metrics can be problematic. This is especially true for phenomena like mental illnesses which are so conditioned by culture.[4] In his study on Eastern and Central African countries, Arne Steinforth reveals how conceptions of

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[1]World Health Organization, "Metrics: Disability-Adjusted Life Year (DALY)."
[2]Naghavi, et al., "The Burden of Disease and Injury in Iran 2003," Table 3.
[3]Institute for Health Metrics and Evaluation, "Country Profile: Iran."
[4]See Good and Kleinman, "Culture and Depression."

mental illnesses are strongly influenced by cultural contexts.[5] Susannah Deanne identifies unique ways of conceptualizing the causes of and treatments for mental illness in Tibetan contexts.[6] The work of Steinforth and Deanne (among others) should give scholars pause before blindly placing too much confidence in the precision of universal health metrics. Nonetheless, even as scholars should be cautious about making overly precise claims, it is still clear that mental illness is a serious and growing problem for Iran.

Iran is not alone in facing a serious burden from mental illnesses. Mental illness is a growing global problem. In 2001, depression ranked fourth in terms of the global burden of disease.[7] More broadly, mental and behavioral illnesses contribute to 12 percent of the total global burden from all diseases.[8] In 2000, one of every five adults in the United States suffered from a mental illness.[9] In 1999, 17.7 percent of children in Ethiopia suffered from a mental illness.[10] In 1993, the prevalence rate for mental illness was 15 percent for Japanese adolescents.[11] Mental illness, and the increasing burden it places on society, is a truly global problem.

The mental health situation in Iranian rural areas is especially concerning given the historically stark disparities between rural and urban areas in even the most basic of health indicators. For example, in 1974 the maternal mortality rate was more than three times higher in rural areas than urban ones.[12] The rural rates for infant mortality and under-five mortality were double those of urban areas.[13] Given the pressing problem posed by mental illness and the historically poor health outcomes of rural communities, this article seeks to answer the question: how has the rural Iranian mental health care system developed to confront the serious societal burden from mental illness?

The development of the rural Iranian mental health care system has a long history. Although Iran had already started experimenting with community-based approaches to non-mental health care before the 1979 Revolution, its approach to mental health care remained largely limited to hospitalization. The first Iranian experiments with community-based mental health care only occurred towards the very end of the pre-revolutionary period and were largely focused on urban areas. After the Revolution, Iran established an expansive primary health care (PHC) system to address the poor health conditions in rural areas. While the original PHC system did not encompass mental health care, external organizations and internal factors quickly began to encourage the provision of mental health care.

[5]Steinforth, "Whose Madness?"
[6]Deanne, "From Sadness to Madness."
[7]World Health Organization, *The World Health Report 2001*, x.
[8]Ibid., 3.
[9]Mental Health Liaison Group, *Responding to the Mental Health Needs*, 3.
[10]World Health Organization, *The World Health Report 2001*, 36.
[11]Ibid., 36.
[12]Mehryar, "Primary Health Care and the Rural Poor," 10 (Table 3).
[13]Ibid., 10 (Table 3).

In response to such pressures, Iran moved quickly to integrate mental health care into the existing PHC system. The Ministry of Health and Medical Education (MOHME) incorporated new training in mental health for the PHC system's community health workers (CHWs). This was an outcome of a new National Mental Health Program in 1986.[14] The National Mental Health Program was created by a group of healthcare professionals across disciplines.[15] It expanded the PHC system's specialist corps to include specialists focusing in mental illness. Rather than introduce new treatment mechanisms for mental illness, such as therapy, the program simply expanded the PHC system's treatment mechanism of pharmaceuticals to also include medications for mental illness. The PHC system already provided structures for treating communicable diseases. Rather than invent new structures, Iran developed its mental health care system by integrating mental health care into the already existing PHC system, treating mental illness much like a communicable disease.

While mental illness continues to place a severe burden on Iranian society, the results of the integration of mental health were dramatic. Integration had allowed for mental health care to expand quickly, providing access to rural Iranians through the PHC system. The widespread coverage throughout rural areas led to improvements along key mental health indicators. While not erasing the burden from mental illness, the integration of mental health care has led to viable and effective treatment options for rural Iranians suffering from mental illness. Despite these significant improvements, more work needs to be done in diversifying treatment mechanisms beyond pharmaceuticals and properly identifying mental illnesses affected by somatization.

Pre-Revolution Experiments in Basic and Mental Health Care

A community-based health model has long been the focus of Iranian officials. In 1942, the Iranian Ministry of Health experimented with a community "health practitioner" program (called *bihdār*).[16] The goal of the program was to create an established CHW corps that could tackle rural health issues. The program provided four years of basic training to high school graduates,[17] and tasked the practitioners with providing basic preventative and curative services.[18] Unfortunately, the program was flawed. Because the prerequisites for the health practitioner program were identical to those of medical school, many potential health practitioners opted to enroll in medical school. Additionally, the health practitioner program allowed for health practitioners to attain physician status after four to eight years.[19] Since the requirements for becoming a health practitioner and physician were the same, many students opted for the phys-

[14]Behrouzan, *Prozak Diaries*, 54.
[15]Ibid., 54.
[16]Javanparast et al., "A Policy Review," 265.
[17]Ronaghy and Solter, "The Auxiliary Health Worker in Iran," 428.
[18]Javanparast et al., "A Policy Review," 264.
[19]Ronaghy and Solter, "The Auxiliary Health Worker in Iran," 428.

ician route. Those who did choose the health practitioner route had the opportunity to become a physician after only a few years, creating instability in the CHW corps. Ultimately, the health practitioner program failed due to poor design and was officially ended in 1952.[20] After shutting down the health practitioner program, Iran launched two more attempts: one in West Azerbaijan in 1972 and another through Shiraz University.[21] Although these initial programs never achieved national coverage, they were important for laying the groundwork for Iran's post-Revolution PHC system.

In the early part of the twentieth century, Iran's approach to mental health relied heavily on hospitalization and was limited to urban areas. Those with less severe mental illnesses were largely left untreated, and those with more severe mental illnesses were relegated to asylums. Until the 1940s, these asylums operated under poor conditions and were limited to the cities of Tehran, Hamadan, Shiraz, and Isfahan.[22] In the 1940s, mental health began to be integrated into the broader health system. Medical schools were established and began to teach psychiatry as a discipline in modern medicine.[23] The first psychiatric ward was opened within a general hospital at Tehran University.[24] With the opening of this psychiatric ward, Iran began to show the first signs of integrating mental health into the broader health care system. While an improvement over asylums, this approach is still problematic. Not only is hospitalization an expensive form of treatment, but limiting mental health care to hospitals in urban areas limits access to people in rural areas and only serves those with the most severe form of mental illness.

These first forays into mental health care were from a perspective that supported pharmaceutical treatment options. The first Iranian psychiatrists were trained in France and brought with them an approach rooted in the biological method.[25] The biological approach meant that the pioneers of Iranian mental health were less interested in psychodynamic therapy. The dominance of the biological approach created an environment actively hostile to psychiatrists who wanted to consider other aspects of mental illness, such as contributory social factors.[26] It is important to recognize the biological approach that launched Iranian psychiatry because it would have long-lasting influences. The post-revolutionary emphasis on pharmaceutical treatment options is a direct descendant of this pre-revolutionary focus on the biological approach.

In the 1970s, the Iranian medical establishment began to experiment with a community-based mental health model. The Society for the Rehabilitation of the Disabled (SRD) formed in the 1970s to advocate for the idea of "community mental health" in Iranian cities through the development of local centers.[27] The SRD was research

[20]Ibid., 428.
[21]Javanparast et al., "A Policy Review," 265.
[22]Yasamy et al., "Mental Health in the Islamic Republic," 382; Javanbakht and Sanati, "Psychiatry and Psychoanalysis in Iran."
[23]Yasamy et al., "Mental Health in the Islamic Republic," 382.
[24]Mohit, "Lessons Learned," Section 3.1.
[25]Behrouzan, *Prozak Diaries*, 42.
[26]Ibid., 47.
[27]Mohit, "Lessons Learned," Section 3.1.

driven and worked with the Ministry of Health and Welfare to conduct a number of epidemiological research projects.[28] The SRD attempted to address many of the problems of the older hospitalization model by moving mental health care from the level of hospitals to the level of local centers. This created the first real community mental health system in Iran.

The move to community-based mental health care was part of larger global shift in the treatment of mental illnesses. For example, the United States began a process of mental health reform in the 1970s.[29] Responding to evidence that mental health treatment in psychiatric hospitals was cost ineffective, the United States shifted treatment to community settings.[30] Similarly, in 1978, Italy passed Law 180 to push for reduction of psychiatric hospitals and a greater reliance on treatment in the community.[31] Iran's movement toward a community-based approach to mental health care cannot be divorced from the larger global movement that was already taking place.

In the decades leading up to the 1979 Revolution, Iran's Ministry of Health and Iranian professional organizations were actively engaging with the idea of community-based health care. The Ministry of Health attempted to create such a system with the "health practitioner" (*bihdār*) approach. The 1940s had seen the dominance of hospitalization as the main approach to mental illness. In the 1970s, the Ministry of Health worked with nongovernmental organizations, like the SRD, to experiment with community-based mental health care through the development of local, community-based centers. This experimentation with community-based health systems culminated in 1978 when Iran signed the Alma-Ata Declaration and decided to define health as "a state of complete physical, *mental* and social wellbeing."[32] To achieve this goal, the declaration established key principles, including universal access, needs-based coverage, comprehensive care, community involvement, support from non-health sectors, and a "cost-effectiveness" approach to allocation of resources.[33] A cost-effective approach with community involvement and universal access implies a community-based PHC system. In defining basic health as including mental wellbeing, Iran committed itself to incorporating mental health into this community-based PHC system.

Post-Revolution Development of the PHC System

This commitment to mental health was not immediately realized as the post-Revolution government began building out the PHC system.[34] Rather, Iran first focused on

[28]Yasamy et al., "Mental Health in the Islamic Republic," 382.
[29]Mental Health Liaison Group, *Responding to the Mental Health Needs*, 4.
[30]Ibid., 4.
[31]World Health Organization, *The World Health Report 2001*, 86.
[32]World Health Organization, "Declaration of Alma-Ata," 1 [emphasis added].
[33]Javanparast et al., "A Policy Review," 264.
[34]Countless articles and books have been written about the Iranian PHC system. For a more complete discussion, see: Shadpour and Shadpour, *Networking Primary Health Care*; Mehryar, "Primary Health Care and the Rural Poor"; Malekafzali, "Primary Health Care in the Rural Area."

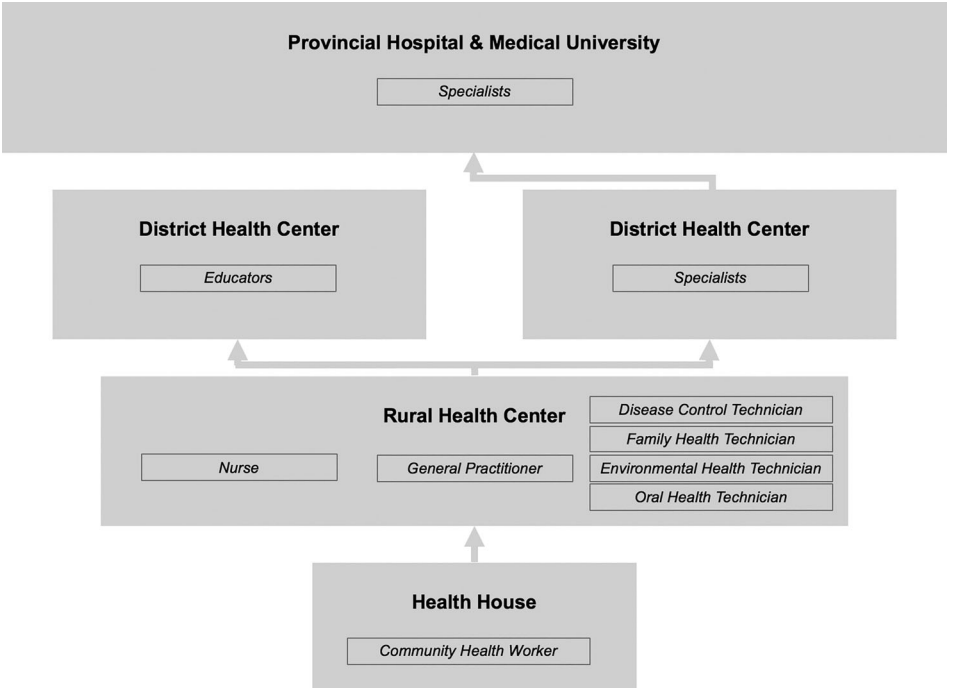
combating communicable diseases and only later began to consider integrating mental health into the PHC system. The new, post-Revolution PHC system centered around the *bihvarz*, a new corps of CHWs. The CHWs were always selected from the communities that they would serve. Once selected and trained, two to three CHWs staffed a health house. The health house managed approximately 1,500 people (2–3 villages) and was no more than an hour's walk from any village it served.[35] By selecting CHWs from the local community and making all health houses accessible by foot, the PHC system encouraged community involvement and ensured a form of universal coverage. In implementing its PHC system, Iran was following an approach that Cuba had already successfully pioneered well before the Alma-Ata Declaration.[36]

The CHWs found remarkable success as they tackled the first focus of the PHC system, communicable diseases. By 2004, the health houses were providing basic disease control, family planning, and data collection services to 90 percent of the rural population.[37] In the first decade of its roll-out, childhood immunizations against communicable diseases more than doubled.[38] The dramatic fall in infant mortality rates is most illustrative of the success of the PHC system. Before the establishment of the PHC system, Iran's rural infant mortality rate was 120 per 1,000 live births; by 1988, that rate had fallen to 58 per 1,000 live births.[39] Some of this improvement might be a product of broader economic growth,[40] but economic growth is often a poor indicator of broader social welfare claims.[41] Much of the dramatic improvement in health outcomes is attributable to the PHC system and the work of the CHWs.

The CHWs and their health houses did not exist in isolation but operated as part of a broader PHC system (see Figure 1). The health houses represent the outposts of the PHC system in local communities. CHWs from health houses address the most basic needs of the population. More complex cases are referred to the Rural Health Center (RHC). The RHC oversees a number of health houses and provides health services to between 5,000 and 15,000 people.[42] The RHC is staffed by at least one general practitioner, a nurse, an administrative assistant, and a number of technicians specializing in family health, disease control, environmental health, and oral health.[43] The next tier of the system is bifurcated into a district health center and a district hospital. The district health center is responsible for administrative tasks associated with managing a health care system. It is linked to the academic system and oversees the training of health workers.[44] The district hospital is responsible for inpatient care and care that

[35]Mohit, "Lessons Learned," Section 2. World Health Organization, "Iran: Nationwide Integration," 127.
[36]World Health Organization, "Cuba's Primary Health Care Revolution."
[37]Couper, "Rural Primary Health Care in Iran," 37; Couper, "Medicine in Iran," 6.
[38]Shadpour, "Primary Health Care Networks," 824, Table 1.
[39]Mehryar, "Primary Health Care and the Rural Poor," 10, Table 3.
[40]Javanparast et al., "A Policy Review," 265.
[41]Sen, *Development as Freedom*.
[42]World Health Organization, "Iran: Nationwide Integration," 127.
[43]Mohit, "Lessons Learned," Section 2.
[44]Couper, "Medicine in Iran," 6.

Figure 1. Connections between the primary health care levels.



cannot be provided by the RHC. When a patient's conditions complicate, the district hospital refers the patient to one of the provincial hospitals which is associated with a university.[45] The provincial hospital is staffed by a number of medical specialists that can provide intensive care.[46] This approach to health allowed Iran to address its most pressing problems in a cost-effective manner. CHWs were connected to their local communities and could address most health issues. Complex issues were gradually referred up the tiers to increasingly specialized care providers so that all could receive the care they needed.

Drive for Mental Health Integration

Fairly early in the development of the PHC system, external forces began to pressure Iran to incorporate mental health. The WHO appointed Professor Narendra Wig of the All Indian Institute of Medical Sciences as the Regional Advisor for Mental Health in the WHO's Eastern Mediterranean Region (which includes Iran). Wig

[45]Mohit, "Lessons Learned," Section 2.
[46]World Health Organization, "Iran: Nationwide Integration," 128.

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quickly began to tour the region, emphasizing the importance of mental health. In 1985, Wig visited Iran, where he met with public health professionals and officials from the MOHME to draft the nation's mental health program.[47] Iran's movement toward mental health integration was part of a global movement led by the WHO.

A global movement for mental health would not have been effective unless it spoke to the local needs and motivations of Iran. As sociologist Carol Underwood has pointed out, the struggle for a just society was a key motivator for Iran's policy decisions.[48] The theological underpinnings of the Islamic Revolution stressed an egalitarian creed that had been absent during the reign of the shah. The shah had focused his reforms on the urban areas to the neglect of the countryside.[49] The Islamic Republic took on the mission to aid its rural areas because it identified this population "as at a particular disadvantage."[50] In addition to developing its PHC system, the central government brought water and electricity to thousands of villages, launched massive road construction projects, sent hundreds of thousands of mullahs into the villages, and built tens of thousands of schools in rural areas.[51] Iran had a strong commitment to the development of its rural areas. Concern for mental health care could not be separated from these other initiatives.

In addition to the ideological motivations for mental health care expansion, war created psychological trauma for the Iranian population. Almost immediately after the Revolution, Iran engaged in a long and drawn-out war with Iraq. Between 500,000 and 750,000 Iranians were killed during the Iran–Iraq war.[52] It was a deadly war that killed or maimed nearly a million Iranians and severely damaged infrastructure in both rural and urban areas.[53] The causalities and veterans increased the "visibility of war traumas."[54] In the war, much of the Iranian army was composed of poorly trained young boys.[55] These boys were not prepared for the physical or mental trials of combat. The sheer number of causalities and injuries meant that nearly every family was affected in some way. The war strained the psyche of the people and necessitated adequate mental health services for the population. The war was a truly horrific event that seared itself into the national consciousness.

The Islamic Republic's first minister of health, Dr. Kazem Sami, was a psychiatrist by training.[56] As a psychiatrist, he understood the seriousness of addressing the stresses that the Iran–Iraq war imposed on the country's mental health. Sami was not only a

[47]Mohit, "A Brief Overview," 1.
[48]Underwood, *Child Health under Revolutionary Regimes*, 123.
[49]Gheissari and Nasr, *Democracy in Iran*, 57.
[50]Underwood, *Child Health under Revolutionary Regimes*, 125.
[51]Arjomand, *Turban for the Crown*, 174
[52]Kurzman, "Death Tolls of the Iran–Iraq War."
[53]Gheissari and Nasr, *Democracy in Iran*, 98.
[54]Behrouzan, *Prozak Diaries*, 53.
[55]Afary, Mostofi, and Avery, "The Iran–Iraq War."
[56]See Abrahamian, *Iran Between Two Revolutions*, 483, which says that Sami was actually a psychologist.

psychiatrist attuned to mental health needs. He was also a revolutionary with strongly socialist tendencies. Sami led the Revolutionary Movement of the Muslim People.[57] This movement was directly opposed to "Western capitalism and imperialism," instead advocating "a radical interpretation of Islam bordering on socialism."[58] Sami's own strong political leanings cannot be divorced from his work. He was committed to a radically egalitarian society. The rural areas of Iran, neglected by the shah, and hard hit by the Iran–Iraq war, required his attention. Sami's suspicious death reveals that he was not a man to back down from his principles.[59] Sami was ideologically committed to Iran's underserved rural population.

The Iran–Iraq war had created a mental health crisis for the nation, but the costs of the war meant a new approach to mental health care was needed. The approach from before the war—and before the Revolution—relied heavily on hospitalization, an expensive form of treatment. The economic hardship caused by the war required Iran to pivot away from hospitalization if it wanted to provide care to more of the population. One option was the community-based approach, piloted by the SRD before the Revolution. Community-based mental health care lowered costs because it returned patients to their communities instead of keeping them in state-run institutions. The economic constraints of the war motivated a more cost-effective community-based approach to mental health care.

Before fully implementing the community-based approach, Iran launched two pilot studies. In 1986, the Tehran Psychiatric Institute (TPI), the successor of the pre-Revolutionary SRD, and the MOHME jointly launched the first pilot study in the city of Shahrekord. The pilot program encompassed twenty-two villages with a total population of 28,903 individuals; the TPI and the MOHME trained twenty-seven CHWs and five general practitioners (GPs) in mental health for the pilot study.[60] A few months later, Isfahan University of Medical Sciences launched the second pilot program in the city of Shahreza in preparation for the city's upcoming hosting of a WHO international conference on mental health.[61]

By using pilot studies, Iran tested the feasibility of integrating mental health into the PHC system. The pilot studies were designed to test five components of the mental health program: "advocacy, promotion, prevention, treatment, and rehabilitation."[62] The results of these pilot studies were overwhelmingly positive. The studies showed that the CHWs improved in their knowledge of mental health and their ability to correctly screen mentally ill patients.[63] Not only were CHWs more knowledgeable about mental illness but the CHWs were also putting that knowledge into practice. Both pilot studies revealed that CHWs were indeed capable of providing

[57]Bashiriyeh, *The State and Revolution in Iran*, 73.
[58]Ibid., 73.
[59]Teimourian, "Murdered Ex-Minister."
[60]World Health Organization, "Iran: Nationwide Integration," 129.
[61]Ibid., 130; Mohit, "A Brief Overview," 1.
[62]World Health Organization, "WHO-AIMS Report," 8; Khadivi, Shakeri, and Ghobadi, "The Efficiency of Mental Health Integration," Introduction.
[63]World Health Organization, "WHO-AIMS Report," 8.

effective mental health care.[64] The success of the pilot studies paved the way for mental health care to be fully integrated into the PHC system in 1989.[65] Within a decade, Iran had not only implemented a PHC system but incorporated mental health as a core part of this system.

Integrating Mental Health through Training and Specialists

To implement the positive results of the pilot studies in the rest of the country, the MOHME needed to modify its training program. To do so quickly, the MOHME took advantage of its existing training structures rather than building new ones. The already existing CHW training scheme combined both practical field experience with a dynamic classroom learning environment. The classroom training involved role-playing exercises and group discussions; the field experience involved actual work experience at a model health house.[66] By learning in a model health house, the CHWs supplemented the theoretical learning found in textbooks by seeing how actual CHWs addressed actual health concerns. The internship at the CHWs' own health house (the CHWs' own placement after completion of training) taught the CHWs about the specific needs of their own communities and how past CHWs had addressed those needs.[67] Into this existing curriculum, the MOHME incorporated one week devoted entirely to training in mental health.[68] Because the MOHME already ran a robust training program for CHWs, it was easy to simply integrate mental health as another topic. The combined theoretical and practical approach to training meant that CHWs would have real-world practice in identifying and referring mentally ill patients.

However, treating mental illness as just another communicable disease can be problematic. With communicable diseases and their often external symptoms, the CHW-in-training can learn from the more experienced CHW to identify specific symptoms and the appropriate treatments. Mental illnesses with their somatization and often unclear symptoms can be more difficult to detect.[69] The GPs who operate in the RHCs and visit the health houses similarly lack intensive mental health training. In medical school, only 3 percent of GPs' coursework is dedicated to mental health.[70] The somatization of mental illness can occur in many forms from backaches to tooth pain. Recognizing the mental illness cause behind this somatization can be difficult.

The somatization of mental illness is a real and documented phenomenon in Iran. In 1977, Bryon Good found that Iranians can express their anxiety in somatic terms

[64]World Health Organization, "Iran: Nationwide Integration," 130.
[65]Ibid., 128.
[66]Shadpour, "Primary Health Care Networks," 824.
[67]Javanparast et al., "A Policy Review," 270.
[68]World Health Organization, "Iran: Nationwide Integration," 127.
[69]Noorbala et al., "Vaz'īat Salāmat Ravān Āfrād."
[70]World Health Organization, "WHO-AIMS Report," 19.

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related to the heart.[71] This somatization safeguards individuals from experiencing stigma associated with mental illness. A more recent study from 2011 found high rates of somatization for patients diagnosed with depression. A majority of patients expressed physical symptoms, with 24 percent describing physical pain and 39 percent describing physical symptoms unrelated to pain.[72]

Iran's high levels of somatization may be due in part to its unique cultural context. Professor Orkideh Behrouzan has appropriately pointed out how "pre-Islamic and Islamic grand tragedies not only inform the psychic structure of Iranian society" but "also contribute to an affective value system."[73] These grand narratives idealize the endurance of "stoic suffering as an indicator of wisdom and depth of character."[74] Idealizing stoicism can lead individuals to suppress any expressions of mental and emotional pain. When suppressed, the mental and emotional pain can manifest as physical pain. This can make it tricky for the CHW or even the GP to properly identify mental illness.

To mitigate this issue, the PHC system is designed so that specialized mental health knowledge can transfer from specialists to more generalized practitioners through refresher courses. The PHC system's provincial psychiatrists undergo the same extensive training as GPs in addition to specialized psychiatric training along the guidelines of the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV).[75] Iranian psychiatrists also undergo three years of residency,[76] an intensive program of training that helps these specialists accurately identify and diagnose mental illness. The provincial-level psychiatrist teaches the GPs a one- to two-week course on mental health and provides a refresher course every one to three years.[77] The GPs (or the provincial-level psychiatrists themselves) teach the CHWs their own refresher courses on mental health.[78] The education of all health workers includes brief training in mental health care. This brief training is bolstered by regular refresher courses from specialists within the PHC system.

By the late 1980s, Iran had integrated mental health into the PHC system by building on the training structures already in place rather than building new ones. It incorporated mental health training for the CHWs as an additional topic in their existing coursework. Specialists in higher tiers of the system began to provide additional training in mental health, much as specialists were already doing for communicable diseases. Iran advanced new training for mental health care by simply expanding the existing structure rather than creating a new structure for mental health.

[71]Good, "The Heart of What's the Matter," 48.
[72]Seifsafari et al., "A Symptom Profile Analysis," 26.
[73]Behrouzan, *Prozak Diaries*, 40.
[74]Ibid., 40.
[75]Javanbakht and Sanati, "Psychiatry and Psychoanalysis in Iran."
[76]Ibid.; Mohit, "Lessons Learned," 3.1.
[77]World Health Organization, "Iran: Nationwide Integration," 130.
[78]World Health Organization, "Iran: Nationwide Integration" 131.

New Pathways to Care

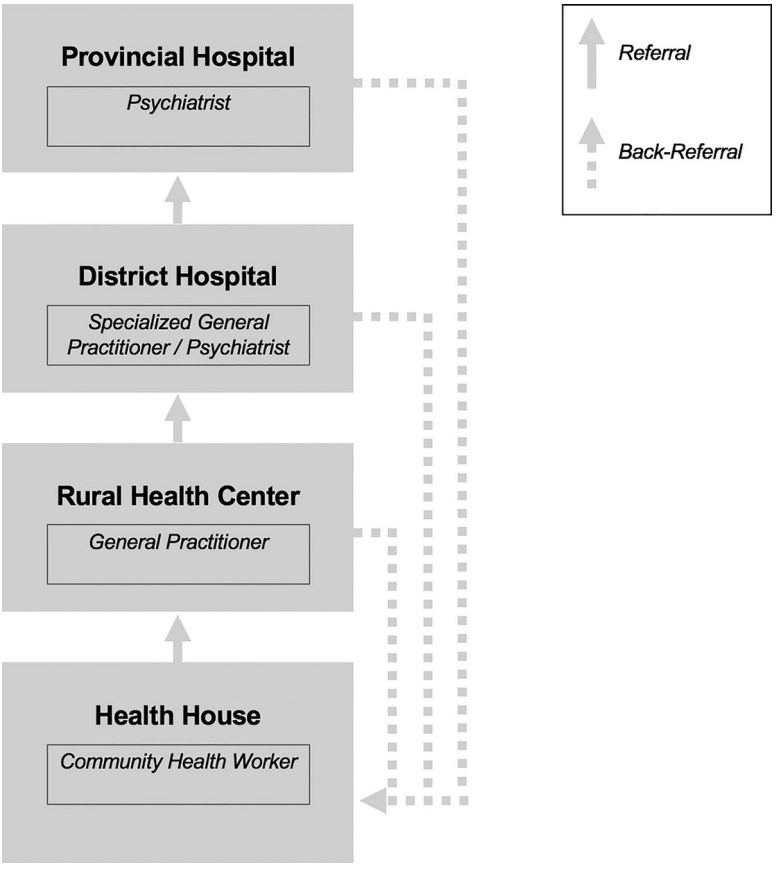
As a result of the training, CHWs began to play an active role in mental health care. The integration of mental health called for CHWs to engage in three core activities: (1) education—raising awareness among communities, families, and schools about mental health; (2) identification and referral—recognizing mental illness in the community, referring the mentally ill to the doctor, and following up after patient reintegration into the community; and (3) data registration—maintaining a system for tracking mental health in the community.[79] These three activities blended nicely with existing CHW roles. CHWs already worked to educate their communities about topics like sanitation and communicable diseases. Mental illness could simply be added to these existing educational duties as an additional topic. In requiring identification of the mentally ill and referral to the doctor, the program required CHWs simply to recognize the symptoms of four broad categories of mental illness: (A) major psychiatric disorders; (B) minor psychiatric disorders; (C) convulsive disorders; and (D) mental retardation.[80] CHWs were well acquainted with tasks of active case finding and referral for communicable diseases. Similarly, data registration was nothing new for CHWs who were already collecting significant amounts of other health data. Mental health care was designed to easily assimilate into the CHWs' existing work streams.

When the CHW identifies that an individual might be at risk for mental illness, the CHW refers the individual to the GP. It is the responsibility of the GP to diagnose individuals with their specific mental illnesses and provide the drug treatments specific to the diagnosis.[81] At the RHC, the disease control technician helps the GP with keeping statistics on these referrals.[82] If the GP cannot diagnose or offer appropriate treatment, the GP refers the individual to psychiatrists at the district or provincial level.[83] This referral approach means that patients are always first treated at the lowest and most cost-effective level. Only as cases get more complex do more expensive specialists begin to get involved.

Regardless of at what level the individual is diagnosed and treated, the CHWs remain critical to the individual's care (see Figure 2). Once diagnosed at the upper levels of the PHC system, individuals with mental illnesses are referred back to the CHWs. Because of their training in mental health, the CHWs have a basic understanding of psychiatric treatments and their common side effects.[84] This allows the CHW to take an active role in monitoring the patient for identification of any serious side effects and for compliance with the doctor's prescription. Under the original PHC system, CHWs would follow up with new

[79]Mansouri et al., "The Change in Attitude and Knowledge," Background.
[80]Mohit, "Lessons Learned," Section 3.1.
[81]Ibid., Section 3.1.
[82]Ibid., Section 3.1.
[83]World Health Organization, "Iran: Nationwide Integration," 128.
[84]Mohit, "Lessons Learned," Section 3.1.

Figure 2. Pathway to care according to the National Mental Health Plan.



parents to ensure that their child was vaccinated. With the integration of mental health into PHC, CHWs follow up with mentally ill patients to ensure that the patients do not neglect their medication and are not endangered by the medication's side effects.

From the beginning, Iran's mental health program was designed to accommodate the structure of the existing PHC system. When it came to mental health, CHWs simply did what they had done before when handling communicable diseases—educate their communities about mental health, identify and refer people with mental illness, and keep statistics surrounding mental health. While diagnosis and treatment happened at higher levels of the PHC system, CHWs were never far removed from the patient experience, playing a crucial role in ensuring compliance and monitoring for side effects. As a result, mental health care was available throughout rural Iran through the PHC system.

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Treatments for Mental Illness

Just as the CHWs' role in mental health was designed to fit seamlessly with their other duties, the treatments for mental illness were similarly designed around existing PHC treatments. Treatment for mental illnesses has been largely pharmaceutical. Iranian brands of risperidone, olanzapine, and clozapine have been commonly prescribed to treat depression.[85] The vast majority of RHCs (81–100 percent) are stocked with at least one of these medications.[86] The PHC system treated communicable diseases with pharmaceuticals. Its approach to mental illness was no different. Once the patient was diagnosed, a pharmaceutical medication was prescribed.

Just as the PHC system had attempted to remove all economic barriers to treatment access for communicable disease, it attempted to do the same for mental illness. Treatments for communicable diseases were free.[87] The costs of drugs for mental illness were similarly free in rural areas and heavily subsidized in urban areas.[88] For those who chose to pay privately for medications, the cost of antidepressants averaged 600 Iranian rials per day, approximately US$ 0.07 per day, a mere 2 percent of the daily minimum wage.[89] When the medications for mental illness were incorporated into the RHCs, they were treated similarly to the drugs for communicable diseases and offered at similar price points.

While the cost-effectiveness of pharmaceutical treatment options was a strong motivator for their adoption, the larger global trends in late twentieth century psychiatry cannot be ignored. The Diagnostic and Statistical Manual of Mental Disorders (DSM) is one of the global standards for classifying mental illnesses. In 1980, the third version of the DSM (DSM-III) was published. DSM-III represented a shift away from identifying causes of mental illness to merely identifying symptoms.[90] This shift in the DSM-III encouraged pharmaceutical treatments because "if the task of psychiatry is to relieve symptoms, then medicines are the best way to do so."[91] In Iran, the emphasis on pharmaceutical treatments for mental illnesses paralleled the global movement towards treatment of symptoms rather than the underlying causes of mental illnesses.

For mental illness, the obvious non-pharmaceutical treatment option is therapy. Unfortunately, counseling or other non-pharmaceutical treatments were not advanced by the national mental health program.[92] Therapy would have been difficult to incorporate into the PHC system. Therapy would require significant deviations from the standard processes of the PHC system because it would require specialized knowledge at the grass-roots level, among the CHWs, in order to be widespread and effective.

[85]Javanbakht and Sanati, "Psychiatry and Psychoanalysis in Iran."
[86]World Health Organization, "WHO-AIMS Report," 19–20.
[87]Couper, "Medicine in Iran," 5.
[88]Khadivi, Shakeri, and Ghobadi, "The Efficiency of Mental Health Integration," Discussion.
[89]Dejman, "Cultural Explanatory Model of Depression," 18.
[90]Maturo, "Medicalization."
[91]Ibid.
[92]World Health Organization, "Iran: Nationwide Integration," 129.

This difficulty, in combination with the global trend towards pharmaceutical treatments of mental illnesses, meant there was little motivation to pursue alternative treatment options. This limitation of counseling services is not a given. Rather it is the necessary result of attempting to assimilate mental health into a PHC system designed to tackle communicable diseases where therapy is not a standard treatment.

Outcomes of the Integration

By making mental health care compatible with the existing PHC system, integration moved quickly. Although the MOHME only dedicated 3 percent of its expenditures to mental health,[93] the mental health program expanded rapidly beyond the pilot studies. Officially formulated in 1986, piloted, and then finally initiated in 1989, the Mental Health Program reached 63 percent of the rural population by 2001. To achieve this population coverage, 84 percent of district health centers, 54 percent of health centers, and 70 percent of health houses were integrated.[94] By 2006, coverage had jumped to 82 percent of the rural population.[95] Because merging mental health care into the PHC system was so cost-effective, the National Mental Health Program has had the opportunity to reach the vast majority of rural Iranians on a minimal budget.

The dramatic increase in coverage has been coupled with some improvement in health outcomes (although much work remains to be done). In the Chaharmahal and Bakhtyari province, mental health was integrated into the PHC system in 1999. In the first two years of integration, suicide rates dropped from six per 100,000 individuals to three per 100,000 individuals.[96] Even decades later, the mental health integration continues to show signs of success. Before 2004, the prevalence of psychiatric disorders in this province was 25.9 percent for women and 14.9 percent for men. By 2004, these prevalence rates had dropped to 14.3 percent for women and 7.3 percent for men.[97] While we should be hesitant to assign too much causality to correlation, the results indicate that the mental health program might be one of the factors that has succeeded in both reducing the severe harms due to mental illness and the prevalence of mental illness itself.

These improvements in health outcomes are recognized by the very people the PHC system is attempting to serve. Traditional healers are alternative care providers not recognized by the PHC system. According to surveys, the usage of traditional healers as the first point of contact has declined from 40.2 percent at the program's founding to 15.6 percent in 2000.[98] Such a decline in traditional healer usage implies that rural Iranians are increasingly seeking care first at the PHC system.

[93]World Health Organization, "WHO-AIMS Report," 10.
[94]Yasamy et al., "Mental Health in the Islamic," 383.
[95]World Health Organization, "Iran: Nationwide Integration," 131.
[96]Khadivi, Shakeri, and Ghobadi, "The Efficiency of Mental Health Integration," Results.
[97]Ibid., Discussion.
[98]Yasamy et al., "Mental Health in the Islamic Republic," 383.

Not only has Iran created near-universal access to public mental health care in rural areas, but rural people are also using the system to seek the care they need.

Despite these strong indicators of success, there are some points of concern. From 1999 to 2009, epilepsy and severe mental disorders were the most common mental illnesses referred to the RHCs in the Chaharmahal and Bakhtyari province.[99] This is problematic because studies have found that mood disorders tend to be much more prevalent than more severe disorders.[100] This mismatch between referrals and actual prevalence rates implies that the CHWs are failing to detect less serious manifestations of mental illness. Some of this may be the result of the somatization of symptoms (as previously discussed). For example, it can be difficult to detect depression if its symptoms manifest as back pain or toothache.

Conclusion

The successes and limitations of Iran's mental health program come from the same source: its treatment of mental illness much like a communicable disease. Mental health was so easily integrated into the existing PHC program because it was presented in a similar way to any communicable disease. This meant that the basic methods of identification, referral, diagnosis, prescription, and follow-up remained similar between communicable diseases and mental illnesses. The already existing referral and back-referral systems meant that the mental health program did not need to create new processes, but simply adapted old ones to new goals. Mental health care built on one of the key strengths of the existing PHC system: the close relationship between CHWs and their communities. Leveraging the strengths of the existing PHC system allowed mental health care to spread throughout rural Iran and dramatically improve mental health indicators.

Nonetheless, treating mental illness much like a communicable disease has its limitations. The symptoms of mental illnesses do not always manifest clearly. Especially in environments with stigma, mental illnesses can be experienced with somatization. The somatization hides the clearest indicators of the mental illnesses and sends health care providers down unproductive diagnostic paths. At the same time, treating mental illness like a communicable disease has led to a primarily pharmaceutical treatment approach. While a pharmaceutical approach to mental health is important, an approach that is solely pharmaceutical ignores important contributions from other treatment options such as counseling and therapy.

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[99]Khadivi, Shakeri, and Ghobadi, "The Efficiency of Mental Health Integration," Discussion.

[100]Noorbala et al., "Mental Health Survey," 71. For another survey of mood disorders, see: Mohammadi et al., "Prevalence of Mood Disorders in Iran."

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