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Mental Health in Rural India
Landour Community Hospital and Project Burans
Mussoorie, Uttarkhand India
Objective: To explore mental health care in the context of general medical care in rural India and to identify an inventory of skills needed to contribute to this work.

A 13 year old boy was brought in to Landour Community Hospital by his father for sudden onset of vomiting. He had been visiting relatives in a near by village when he became ill but no one was able to give much history about how he had been feeling earlier in the day, only that he returned home vomiting and unwell. By the time he was evaluated by the on call medical team he was minimally responsive with copious, oily smelling secretions partially obstructing his airway. He was hypotensive with wildly labile heart rate and noted at first to have bilateral clonus which progressed over the following hour to a flaccid paralysis. The doctors here in the small hill town hospital have come to recognize this pattern all too well; in this rural mountainous community in the Indian Himalayan foothills, a young patient brought in suddenly severely ill is almost always organophosphate toxicity. Tragically, in the case of teenagers and young adults here, it is commonly a result of an intentional ingestion. The patient was intubated and placed on a ventilator. He was started on a steady infusion of atropine and transferred up to the tiny 3 bed intensive care unit. There, despite the watchful eye of the junior doctor, he died two days later.

In 2014 a national Indian newspaper reported that India has one of the highest suicide rates in the world topping out at approximately 21 deaths per 100,000. Hanging and organophosphate poisoning are the means of choice and the adolescent and young adult populations appear to be particularly at risk. Beyond these very basic numbers little more is known about the epidemiology of suicide in India. In part this is a function of the fact that in a population of over 1.2 billion people, with hundreds of languages and people groups, diverse geography and wide disparities between socio-economic strata as well urban and rural populations identifying common risk factors for suicide in this setting is challenging. And, even more importantly, once risks are identified they are only one of many components required to developing a comprehensive plan to address the mental health needs of the communities.

Based on some WHO estimates in low and middle income countries depression and anxiety disorders account for nearly a quarter of all YLDs (years lost due to disability) – more than cardiovascular disease or cancer. Yet for many national and regional governments mental health remains a low priority when budgets are stretched thin. For much of the world not only are there limited fiscal resources but even more critically there simply are not enough trained professionals to address the needs.

The north Indian state of Uttarkhand where Landour Community Hospital is located has a population of approximately 8.5 million people with much of the population living in villages stretched across remote Himalayan valleys, some without immediate access to drivable roads. Providing general health care is challenging and most services are based in larger towns with some village outreach. In terms of mental health a document published in 2006 by WHO and the Ministry of Health of Uttarkhand reported there are 6 psychiatrists based in the entire state. Indian medical training includes some basic psychiatric care, particularly those who studied Family Practice but most mental health care falls to small non-government advocacy and health organizations.

The Emmanuel Hospital Association (EHA) is a faith-based network of hospitals spanning the sub-continent. They are committed to providing quality care for the nation's poorest citizen and recruit physicians by offering training sponsorships. As an organization they are focused on various social determinants of health and most hospitals in the association have village community development and outreach programming to assist with this. Resources are shared across the network and specialists in particular provide on an itinerant basis. One of their larger hospital units located in Herbetpur, Uttarkhand, has a psychiatrist and psychologist who then make bimonthly trips to see patients at adjacent units. Using a collaborative care consultative model of care, patients are identified by the primary care physician at the local hospital and then referred to see the psychiatrist and psychologist when the have their rotating clinic. Many patients are then started on medications and then followed by the primary care physician unless complications or treatment resistances arises.

In Mussoorie, EHA supported the development of a community-based approach to mental health care through Project Burans. This project served as an additional collaborative care coordination partner for the visiting psychiatrist by providing community outreach and follow up. Currently they have 4 community mental health workers who are trained in basics of identification of patients, supportive therapy skills and care coordination. These health workers visit patients and their families in there homes, help draw up care plans and assist in getting patients seen by the psychiatrist. In addition they are instrumental in helping with initial basic epidemiological data gathering on the populations at risk. They have generated some of the few data regarding risk factors for mental illness in the region. In addition the organization is partnering with the Ministry of Health to develop a training course to train local primary care physicians in a basic mental health diagnosis and treatment.

The impact of this model is best told by the stories of patients and their families:

B is a 35 year old male whose mother was seen at LCH some years ago. There she mentioned that she had a son who was house bound and agreed to have a community mental health worker come to the home to evaluate him. The worker found him to be confined to a small room in a severely decompensated state. His

illness had started about 10 years prior and initially his mother thought the strange ideas that he had were a result of over indulgence in hashish. However, over time he became more and more bizarre. He became paranoid and began to talk about how he was god. She took him to multiple priests in hopes that they would be able to help him but to no avail. Eventually he dropped out of the good job he had and he moved back home with her. She now has to keep him indoors as much as possible since he has been throwing stones at the neighbors. He sleeps very little and eats sporadically. He often defecates and urinates on the bed in the small room where he stays and at times, when his mother suggests that they go to the hospital to see a doctor, has physically threatened her. When evaluated he was noted to have pronounced positive and negative symptoms concerning for a primary psychotic disorder. The community health worker was able to provide a report to the itinerant psychiatrist and together the team and mother agreed to try to treat the patient with olanzapine syrup in the hopes of stabilizing him enough to have him agree to a long acting depot second generation antipsychotic which the hospital pharmacy would coordinate.

D is a 77 year old male, originally from Bihar, a neighboring state. He moved to Mussoorie to live with his son and daughter-in-law. They report that when he first moved he began to see people following him or sitting in the trees and watching him. He was anxious and not sleeping well. His appetite declined and he became increasingly depressed. One of the community mental health workers began following him and finally convinced him to see the psychiatrist when she visited. She prescribed an SSRI and a second generation anti-psychotic. His family report that he has been much more calm, less anxious and paranoid and is sleeping and eating well. He has not agreed to return to see the doctor and the family have limited funds for the visit but the mental health worker follows on a regular basis. She has worked with the family to ensure that the patient has a daily routine and a role in watching over the family's three goats.

These cases illustrate some of the great mental health needs in the communities of the Indian Himalaya but also exemplify the ways in which innovations in delivery care models can address those needs despite barriers of resources, stigma and access. Physicians committed to care of these vulnerable populations need to be prepared to invest in local capacity building as a primary activity. Clinical skills and experience sharing as well as investment in basic epidemiologic research to guide large scale implementation planning are two critical areas of engagement for physicians dedicated to global health and vulnerable populations. Training physicians to participate and lead these activities is one way global health programs can maximize their impact on health disparities.

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