Decentralisation of Psychiatric Services in Zanzibar

Prior to starting my core training in Psychiatry in Severn Deanery I spent 8 months working with Health Improvement Project Zanzibar (HIPZ) in Makunduchi Cottage Hospital, South District Unguja (2013-2014). My role during my time in Zanzibar involved successfully developing a new outpatient psychiatric service at Makunduchi Cottage Hospital. This new service was based on a 2008 collaborative report written by the Ministry of Health and development partners on the island that advocated for widening of access to mental health services via the decentralisation of psychiatric provision on the Islands of Zanzibar.[1]

I continue to work with this UK based charity and I am leading a team that will replicate this model and provide a new service at Kivunge Hospital in the north of Zanzibar in 2016 serving an additional population of around 200,000. This was a project that was implemented in partnership with the Ministry of Health and fellow development partners Haukeland University Hospital, Bergen (HUH). Our aim was to provide local, accessible and evidence based psychiatric services of a high quality to large rural communities who have previously been unable to access them.

Why is mental health important in Zanzibar?

Neuropsychiatric disorders account for 13% of the global burden of disease, of which low- and middle-income countries hold 70%.[2] By 2020 an estimated 1.5 million people will die each year from suicide and the number of people making an attempt will increase to between 15 and 30 million.[3] Between 76% and 85% of people with severe mental disorders receive no treatment for their condition in low-income and middle-income countries like Zanzibar.[4]

Worse still, this treatment gap fails to account for the low standards of care provided for those that do receive treatment. Chronic underfunding and lack of investment in services have rendered mental health programmes struggling to function and unable to attract funding. Mean annual spending on mental health services per capita in low-income countries is only US$0.25 [4] and this paltry funding is primarily targeted at larger inpatient services traditionally associated with poor outcomes and abuses of human rights.

Zanzibar has only one psychiatrist for the entire population of 1.3 million working between both islands, Unguja and Pemba. The existing service provision is not fit for purpose and centralised in the underfunded and under-resourced Kidongo Chekundu Hospital (KCH) in Zanzibar Town. Prior to January 2014, people living with mental health disorders had no option but to travel to Zanzibar Town to receive care and treatment, a trip these marginalised patients could simply not make and they were often lost to follow up. Children with epilepsy and adults living with bipolar disorder or schizophrenia had no choice but to manage without the support of health professionals or medication.

Mental disorders have a reciprocal relationship with poverty. An overwhelming majority of people with mental disorders live in poverty, with population-based studies of risk factors showing that poor and marginalised people are at a greater risk of suffering from mental health conditions.[5] Mental disorders themselves can lead individuals and their families into poverty due to the cost of treatment, often availed of through the private sector, and also results in lost employment opportunities.[4] The relationship is complex yet undeniable, and action on mental health could prevent this negative poverty cycle. HIPZ truly believes in the World Health Organisation maxim that “There is no health without mental health”.[6]

Makunduchi Psychiatric Service:

January 2014 saw the opening of an outpatient Psychiatric Service in Makunduchi Hospital. This was designed as a local and accessible outpatient mental health service to the rural population of southern Zanzibar that would be guided by evidence based practice. Our aim was to widen access to psychiatric services, guided by the belief this was best achieved by decentralising current mental health provision, via psychiatric nurse-led outpatient clinics in the cottage hospital system. Prior to the creation of the Makunduchi clinic, psychiatric services were centralised at Kidongo Chekundu Hospital (KCH) in Zanzibar Town, a prohibitive 2hr journey away by bus. Psychiatric care at Makunduchi was provided on an ad hoc basis and was not integrated with any other mental healthcare provision on the island.

The clinic is founded on the principle of utilising and fostering the existing untapped talent pool that exists within the Zanzibari nursing population. Until 2010, nursing students during their final year of training elected to either specialise in Nurse Psychiatry or Nurse Midwifery. A significant proportion of our nursing staff therefore had one year's experience and training at the mental health hospital in Zanzibar Town. Although we had three trained nurse-psychiatrists at Makunduchi, they were working as general nurses, without a defined psychiatric role. Pandu Kassim was nominated as the lead nurse for the project, having long been one of the leading and most accomplished nurses working at Makunduchi. Pandu lobbied the hospital management team to focus efforts on mental health in South District and has been instrumental in the creation of the service.

As the HIPZ volunteer doctor I coordinated the planning and delivery of this new service. Negotiations culminated in the signing of a Memorandum of Understanding between the Zanzibar Ministry of Health, HIPZ, and a team of Psychiatrists from Haukeland University Hospital in Bergen, Norway. HUH is a well established development partner in Zanzibar and are based in KCH. Dr Ingvar Bjelland (Associate Professor University of Bergen) devised and coordinated the curriculum and clinical training for the new service based on the WHO mental health gap action programme (MhGAP) guidelines.

An evidence-based approach:

It is estimated that in low income countries only 10% of people receive any evidence-based treatment, even when they overcome the barriers of access and attend for treatment.[7] This lack of evidence-based treatment in mental health around the world is leading to under-detection, and often total lack of detection of mental health disorders, further widening the treatment gap.[8] That is why our 6-month clinician-led training programme was based on MhGAP and why the nurse psychiatrists at Makunduchi are using these evidence-based WHO guidelines to diagnose and manage the mental health disorders they encounter. This is the only evidence-based mental health clinic operating on the islands. Our nurse psychiatrists also receive on-going clinical supervision from experienced members of the KCH clinical team, HIPZ doctors and visiting HUH staff.

Developmental stages of the Makunduchi Psychiatry Clinic:

1) Operation as an outreach clinic from KCH. Our nurse psychiatrists worked collaboratively with KCH staff during clinics. The Makunduchi nurse psychiatry team undertook a Haukeland University Hospital-led 6-month curriculum of education based on the WHO MhGAP guidelines. This training was a mixture of weekly teaching sessions based on the guideline and on the job clinical supervision.

2) The clinic becomes psychiatric nurse-led. Diagnosis and management is made using World Health Organisation (WHO) MhGAP guidelines. The service now accepts and refers patients to and from KCH. The clinic has its own budget that is overseen by Pandu Kassim (Nurse Lead for the Psychiatric Service) and our Hospital Manager Zainab Othman. This is the first example of departmental budgeting in our hospital. In addition each patient has individual psychiatric notes that are kept on file in our outpatient department.

3) Our lead nurse psychiatrist is currently in the process of being re-employed as a nurse specialist. By the end of the year he will have an exclusively psychiatric role for the hospital. We are currently transitioning to this step after further negotiations with the Ministry of Health. This includes outreach services with local primary healthcare, thus further extending the provision. The long-term success of this service depends on how we can integrate with primary care, a concept supported by the Ministry as well as Danida (Danish Government Aid agency), one of the major development stakeholders on the island. Integration of the cottage hospital system with the local primary health care units is lacking and this role would be a new way of linking the two worlds.

Successes so far:

The first clinic opened at Makunduchi in January 2014 and attendances have grown steadily. It is embedded within the well-established set of specialist outpatient clinics provided at Makunduchi. We see a wide range of conditions including mood disorders, psychoses and child and adolescent mental health disorders. This mental health service also includes epilepsy services, a condition in Zanzibar that is managed by nurse psychiatrists, as they tend to have the most experience in it's diagnosis and management.

The service is unique in that each patient has his or her own set of psychiatric notes which follow a structured psychiatric interview technique. These notes are used in conjunction with the MhGAP diagnosis and treatment guidelines. Each patient attending the service is assessed and if appropriate is diagnosed and managed in line with WHO guidelines.

The Makunduchi Psychiatry Service has a close relationship with KCH in Zanzibar Town. If the Makunduchi staff are of the opinion that the presentation requires further specialist input or inpatient management then a written referral is made to KCH for the patient to be seen by the Psychiatrist on the island for joint management. A referral network from secondary level care to tertiary level care has not existed in mental health care on the island previously. We also receive written referrals from KCH for patients who would be more appropriately managed in a local service. We feel this shows the successful integration of the service into the wider mental health network on the islands.

Data collection & quality improvement:

Data collection and monitoring is integral to the psychiatric service. Each month Pandu, the service lead compiles a data report of the number and type of patients that have used the service. This is integrated into the monthly Hospital Manager's report that HIPZ uses to monitor progression and challenges within the hospital.

In the first 12 months of the clinic there were 826 consultations. In the first month of clinic 43% of cases were previously unknown to mental health services on the island. We have seen a wide range of morbidity from schizophrenia to developmental disorders in children. Our 5 most common presentations (% of all consultations in one year) are:

Epilepsy: 391 consultations (47.3%)
Enuresis 243 Consultations (29%)
Schizophrenia & other psychosis: 82 consultations (9.9%)
Anxiety: 52 consultations (6.3%)
Intellectual Disability: 38 consultations (4.6%)

We were surprised as to the levels of patients with enuresis that were presenting to the clinic. We held a teaching session for our medical team on the management of childhood enuresis and transferred some of these back to regular outpatient care. However we have been left with a group of adolescents with more complex needs that are most appropriately managed in the psychiatric service. These range from cases of developmental delay to depression and sexual abuse.

As part of the negotiated Memorandum of Understanding with the Ministry of Health and Haukeland University Hospital we have an agreed format for monitoring the quality of the service that we provide beyond just raw data. This is achieved through the following means:

- **Audit**

Pandu with support from the Hospital Manager and HIPZ doctor conducts annual clinical audit that is targeted at patient safety and compliance with guidelines. In January 2015 the most recent audit was conducted of the service.

Four criteria were measured:

1) Does the patient have a diagnosis that is consistent with the WHO MhGAP intervention guide (for mental, neurological and substance use disorders in non-specialized health settings)?
2) What diagnosis has the patient received?
3) Are any medications prescribed consistent with MhGAP guidelines (or consistent with common evidence based prescribing)?
4) Has the patient's risk to themselves and others been assessed and documented?

The results showed successes and challenges. Of the 100 patient notes sampled all had a diagnosis consistent with the MhGAP guidelines and 93% were on treatment consistent with the evidence-based guidance. 94% of notes included a risk assessment, a key area in patient safety and good practice in psychiatric assessment. The largest patient group attending the clinic in this sample was epilepsy.

One concern raised was the low number of patients with depression attending the clinic. This has led to a campaign drive on local radio that aims to educate on the symptoms of depression and will be a central aspect of our work with Primary Health Care Units. Staff feel this may be explained by depression presenting with a high degree of somatic symptoms that can be misdiagnosed as a physical illness.

- **Patient satisfaction gauged by survey on an annual basis**

The working party felt strongly that the opinions of patients and the local community should be central to assessing progress and development of the new service. Twice a year, those that use the service will be surveyed for their opinions on how the clinic is serving them. In January 2015, 63 patients were surveyed. 86% felt that the nurse always treated them with respect and dignity. 89% felt that the nurse either always or mostly understood their problems. 87% felt information had always been communicated in a way that was easy to understand. 73% gave the service an overall rating of excellent. Only 30% of patients attending the service felt they had been stigmatised in the community because of their mental illness. It is our feeling that this perhaps lower that expected figure is because the people likely to attend the service in its inaugural year have a lower perception or experience of stigma and have therefore been willing to attend.

The satisfaction survey also helps to formulate our themes for improvement. A variety of comments were documented. 46% felt that the clinic could be improved by wider access to medications, 16% felt the clinic required more staff, 10% wanted clinicians to have more time to spend with them.

- **Build awareness of Psychiatry clinic in local community through Shehia (local community leaders) & DHMT (District Health Officers)**

We have monthly hospital meetings with the local community leaders that take place in the hospital where issues relating to mental health in the community and the psychiatric service can be discussed. Feedback at these meetings has been very positive and the community has asked for further expansion of the service to also be based at the Primary Health Care Units in the South District, which would make provision even more locally available.

Future plans:

The next step is to replicate this model and expand to Kivunge Hospital in the north of the island, after the creation of the HIPZ-funded new outpatient facility that opened in summer 2015. On behalf of HIPZ I authored a grant application that secured £12,550 in September 2015 from Festival Medical Services UK to fund further expansion of the Makunduchi Service and to develop the new Kivunge Service.

I am travelling to Zanzibar in December to take part in the final stages of negotiations for the new clinic with the Ministry of Health and will take part in the interview panel for the lead role in the new service. Haukeland University Hospital psychiatrists have committed to provide the same training in MhGAP to the new nurse psychiatrist lead at Kivunge. We hope also to provide further training for the leads of both services in psychological interventions.

The clinic in Makunduchi has delivered palpable success with limited funds in one year. It is however only in its early development. We hope to establish a community outreach facility within the Makunduchi Service by the end of 2016. This will include satellite clinic services within 2 Primary Health Care Unit Pluses in south district, thus further extending the provision. The long-term success of this service depends on how we can integrate with primary care. This is a concept supported by the Ministry as well as the 2008 developmental partners report that was the basis for the original Makunduchi Project.

Conclusions:

My time with HIPZ cemented my desire to further my career as a psychiatrist and to contribute to the understanding of mental health from a global perspective. This project has been based on the premise that improving healthcare in Zanzibar can be achieved by fostering the talent of the local staff we have in the hospital through smart on- the-job training, under the supervision of specialists from both Zanzibar and abroad. This model has its foundations in close collaboration with and oversight from the Ministry of Health, and work with other development partners on the island. With the psychiatric clinic we are using the untapped resource of nurse psychiatrists who are already working in a general nursing role in the cottage hospital system and are diagnosing and managing patients using WHO Guidelines (MhGAP) which is a mental health first for the island.

Declaration of Funding & Conflicts of Interest:

My initial 8 months in Zanzibar was funded by Health Improvement Project Zanzibar as is the upcoming trip in December. Further development of the service will be supported by Festival Medical Services UK. I do not have any conflicts of interest to declare.

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