Christensen, Lars Rune, and Ahsan, Hasib (2021): The Sensing and Numeration of Mental Health in a Refugee Camp. 8th International Conference on Infrastructures in Healthcare. DOI: 10.18420/ihc2021_007

The Sensing and Numeration of Mental Health in a Refugee Camp

Lars Rune Christensen[1] & Hasib Ahsan[2]
IT University of Copenhagen
[1]*Lrc@itu.dk* & [2]*Hahs@itu.dk*

Abstract. In this paper we draw attention to the duality of mental health assessment in a refugee camp: its *sensing and numeration* by Medical Assistants providing door-step services to the refugees. Drawing on ethnographic fieldwork in Kutapalong, Bangladesh, we explore the moods that pervade the refuges and their dwellings as these moods are important to the Medical Assistants that service the refugees with health care and in turn assess their mental health. While we consider attuning to moods in Heidegger's sense as pervasive to the human existence, we consider the numeration of mental health by the medical assistants using a screening tool as equally significant. Comprehending how states of mental health are assessed in our case, we argue, requires that we pay attention to both the quantification of mental health by a screening tool as well as the ways that the experience of moods shape the assessments done by the health care professionals. Taking this analytical approach, we show how the assessment of the mental health of refugees by Medial Assistants in a camp setting were inseparably both a question of sensing as well as numeration. Where sensory experience may not be 'enough' on its own to warrant referral in the context of the health care infrastructure of the camp, and therefore the agency of numeration is a force that works well as an ally to the sensing of moods impressed on the medical assistants.

Introduction

This paper explores the assessment of the mental health of refugees in Bangladesh by medical assistant providing door-step services. Recently, a digital screening tool has enabled Medical Assistants to quantify the mental health of refugees in the camp. Based on WHO SRQ-20, the screening tool enables quantification of the severity of mental health issues on a scale from one to twenty – where a score of seven or above is the cut-off point for referral to treatment. Yet the Medical Assistants do not rely on the screening tool alone to make their referrals. Ethnographic data show that in addition to relying on the screening scores they also rely on their intuition and bodily experience of meeting the refugees in their homes - seeing them, sensing them, picking up on their posture, frame of mind, and the atmosphere of the home. How is the mental health of the refugees 'experienced' by the Medical Assistants in part through numbers and in part through

bodily experience?

Poor mental health has long been known to have adverse effects and assessing it more readily and accurately in humanitarian crisis can arguably contribute to the well-being of for example refugees by providing those in need with referrals to treatment. However, what counts as poor mental health to those doing the referring is in practice located between 'objective' measures of mental health such as the WHO SRQ-20, and more 'subjective' valuation and bodily experience of moods, frames of mind, and atmospheres mediated through the senses. Neither numeration, nor bodily experience, thus stand alone in the assessment of the metal health of refugees in Kutapalong camp by the Medical Assistants. We refer to the above as the 'dual quality' of mental health assessment in Kutapalong Camp, which we engage with in this paper.

In most humanitarian crisis, mental health issues are tied to the life changing and sometimes catastrophic events leading up to the crisis. Worldwide, people are facing an increasing number of humanitarian crisis arising from conflict and disaster. In 2019, there were 70.80 million forcibly displaced people worldwide (UNHCR 2019b) of them 914 988 were Rohingya, our case in point, living in camps in Bangladesh (UNHCR 2019a). The Rohingya influx into Bangladesh followed their forceful displacement from Myanmar in 2017. Although estimated rates of mental health issues in the wake of humanitarian emergencies vary somewhat with circumstances and study methods, a meta-analysis indicate rates of 22.1 % for mental disorders (i.e. depression, anxiety, post-traumatic stress disorder, bipolar disorder, and schizophrenia) in conflict-affected populations (Charlson, et al. 2019). Existing studies offer vivid documentation of the ways in which displacement, trauma, and confinement affect Rohingya refugees in Bangladesh (Tay, et al. 2019). How idleness, the breakup of extended families, domestic disputes, and uncertain prospects for the future, depress the mood of the Rohingya refugees and drive some to mental illness (Christensen, et al. 2020). Arriving at a refugee camp can be lifesaving but living in a camp may be associated with stress and lead refugees to mental health issues (Christensen et al 2020). Despite this attention to mental health in humanitarian crisis, few studies have considered in ethnographic detail how mental health is understood and assessed by those working with the refugees taking responsibility for their well-being including their referral to treatment.

Our starting point is ethnographic field work conducted in Kutapalong refugee camp in Bangladesh. Numerous studies within human-centered computing and health care (Christensen 2015; Petersen, et al. 2021; Tellioğlu and Wagner 2001) have employed ethnographic approaches (Blomberg and Karasti 2013; Christensen 2014), including in the Global South (Christensen, et al. 2019; Christensen, et al. 2018). Using an ethnographic approach, then, we explore the duality of the process by which medical assistants screen refugees for mental health issues and offer a theoretical exploration of how these assessments steam from numeration and bodily experience. Previous studies have long been occupied with what quantified data in the form of numbers mean and what they 'do' (Day, et al. 2014), and how they are mediated or themselves mediate phenomena (e.g. Hacking 1990; Porter 1995) (Desrosières 1998; Espeland and Stevens 2008). Studies have proposed that numbers are social entities (Lippert and Verran 2018; Verran 2012). In a tradition inspired by Michel Foucault, numbers are seen as a way to enable management through rational-scientific means (e.g. Rose 2004). Numeration may make a phenomenon visible and legible and be a source of agency (Scott 1998). Furthermore, studies of mental health have benefitted from a phenomenological perspective of lived sensory experience inspired by not least Heidegger (e.g., Gammeltoft 2018). Heidegger's concept of *Befindlichkeit* (attunement) and *Stimmung* (mood) are pertinent here. Attunement refer to how we humans are always already tuning into our

surroundings, open to our lifeworld and its atmospheres that we soak up as a matter of being-in-the-world. Attunement is a matter of existing in a world that we already always share with others, it is as such a matter of being or *Dasein* (lit. being-there), to use a central term from Heidegger, rather than an act of will or purpose. The point is that attunement is an inevitable part of being. "The world is always already the one I share with others. The world of *Dasein* is a *Mitwelt* (with-world). Being-in-the-world is being with others (*Mitsein*). Attunement as part of being in the world with others may make us sensitive to their moods (*Stimmung*) (Heidegger 1962).

In this paper, we will consider the moods that pervade the refuges and their dwellings as these moods are important to the Medical Assistants that service the refugees with health care and in turn assess their mental health. Considering attuning to moods in Heidegger's sense as pervasive to the human existence, we use the concept together with the notion of numeration to designate the assemblage of *quantification* by virtue of the SRQ-20 screening tool and the *attunement* to the refugees by the Medical Assistants. Comprehending how Medical Assistants working in the camp with the refugees, come to understand the mental health of the refugees demands, we content, dual attention to numeration and attunement to moods within the camp.

The Study: Mental health among refugees at Kutapalong

This paper derives from a collaborative research project conducted in Kutapalong refugee camp in Eastern Bangladesh by a Bangladeshi-Danish research team. Combining screening and ethnographic methods, the larger study investigated the mental health of refugees in the camp (Christensen et al 2020). The project included the screening of 2735 adults for mental health issues and interviews with selected refugees. The screenings were part of an outreach program staffed by mHealth teams comprised of one paramedic (female health care professional with a degree in health care) and one coordinator (male and often without formal education in the field of healthcare). Each mHealth team is dedicated to one area and goes door to door to provide primary health consultations and support to every household. Each mHealth team supports around 300 households, making 10 to 15 household visits every day. For every household, the mHealth team makes follow up visits within 14 days from the previous consultation session.

During the project, each of the paramedics visited the households in their area of the camp and in addition to providing primary health care as per routine (i.e., in relation to somatic issues), the paramedics also screened the adult members of the household for symptoms of mental health issues using a digital screening tool based on the WHO SRQ-20 standard (Beusenberg and Orley. 1994). The SRQ-20 is a 20-item screening tool which was developed by the World Health Organization (Beusenberg and Orley. 1994) and it has been widely used in low-income countries (Netsereab, et al. 2018; van der Westhuizen, et al. 2016). The SRQ-20 includes 20 questions, and on the basis of the refugees replies to these, a total score is calculated. The maximum score, indicating a high risk of mental health issues, is 20. Cut-off points differ between countries, but in most settings, people with scores of 7 or more are considered at risk of mental health issues. In South Asia, different cut-off points have been used (Christensen, et al. 2020). In our project we settled on a cut-off point of 7 meaning that those refugees that answered positively to seven or more of the questions, asked by the paramedics during the screening sessions, were referred to further diagnostics and treatment at camp clinics.

We base this paper on ethnographic interviews with the medical assistants that conducted the screenings with an interest in their experience. We interviewed them and

followed them on their rounds of house calls and screenings for mental health issues. In collaboration with our Bangladeshi partners, we interviewed 20 medical assistants, and visited with them as they provided services in the homes of the refugees. In eight cases, we met with the medical assistants and joined them on their house calls on more than one occasion. The medical assistants were aged 23-31 at the time and had been working in the camp between 1 year and 7 months and 2 years and 2 months. In addition, we carried out a series of ethnographic interviews with Rohingya refugees that is this paper mostly figure as background to the experience of the medical assistants that we foreground.

One of the first medical assistants we met was Sharmin (not her real name). She has been working as a medical assistant in the camp for 1 year and 11 months and had joined the humanitarian effort early when the camp was being established. In our initial conversations with her, Sharmin described the horrendous conditions in the camp in early 2018, when she came to work there, and her motivation to reduce the misery and suffering of the refugees.

Sharmin: In the beginning

Standing on a hill lets one appreciate the sprawl of shelters reaching into the horizon. Hosting close to 600,000 people in one-story shelters makes the Kutapalong extension site, as it is formally known, striking by its extent alone. According to the official Bangladesh policy, the "displaced Myanmar nationals" living in the camps are not refugees *per se* and are not to settle permanently. The shelters are built to be temporary to reflect the status of their inhabitants. That is, they are made with tarpaulin suspended over bamboo frames and have compacted stamped earth for floors. A dwelling will typically have a heavy cloth curtain, rather than a door, to separate the main entrance from the rough paths outside that serve as the street. Spread out empty sacks may serve as carpets. Each shelter leans on the next in long winding rows. The rows of shelters cluster and form blocks connected by gravel roads passable by trucks and lorries carrying people and supplies. Everything organised by the Bangladeshi military and international aid agencies. From conversation, it emerges that the camp has not always been this orderly “If I start from the beginning”, Sharmin says, “there were no proper roads going into the camp. It was a wildlife reserve for elephants before the refugees came here. The roads were so bad that it was hard for us to walk and taking a car was out of the question, we had to follow footpaths and everything and everybody was scattered around. One problem was that the refugees used the roads and trails as toilets making the camp extremely dirty and we had to watch every step. We started 8 in the morning and worked until 4 in the afternoon, we had to leave the camp before dark for safety. During those days we had little water, food, or rest. They [the refugees] were worse off. Sleeping where they could and eating what they could find. The place was a filthy mess. Many had diearea and suffered exhaustion both physically and mentally.” As we started to descent downhill, we can see how some things have changed. Roads have been built, shelters, and running water and sanitation has been introduced.

Sharmin, and the other women working as medical assistants [they are all women], move around the camp providing health care to the Rohingya. This was not readily appreciated or well understood at first. “In the beginning everyday was a challenge”, Sharmin says, “it was difficult for them [the Rohingya] to accept that women can work like men, and what made it even more difficult was that I was with a male colleague of mine who was the program organiser. To them it is a sin for a woman to work like this with a man. They would not let us into their homes at first.”.

We move with Sharmin and her colleague between shelters doing house calls. The ground is muddy from the past days rain and it takes effort to walk without slipping. "we used to start our day going to the Majhi", Sharmin says, "we had to register the refugees by household […] we tried to convince him to allow us to do this registration. The work we do is totally app based and before we can provide treatment to people, we have to register the household using our tablet and take their names and pictures for their health records. Doing Khana [household registration], we repeatedly had to explain that we were a medical team and needed access but, in many cases, the Majhi[1] was not listening." Only after repeated pleading over several days Sharmin and her colleague were allowed into the shelters. The refugees gave their names readily, but many refused to have their picture taken for the Khana registration. "We were under suspicion of being spies from Myanmar", Sharmin says, "and it took a while to convince them that we are here to help them". The female member of the households held out the longest and taking their picture was a hard struggle, Sharmin tells us. With every entry into a new block of the camp the story repeated itself. Only Sharmin was allowed to enter the house while her male colleague was told to stay outside in the street. "I was scared", Sharmin recalls, "I entered every house alone with so many looking at me with suspicious. They could easily have harmed me and there was no one to protect me." It was difficult to win over the refugees. "Especially the elderly questioned me - saying that it was not necessary for us to collect their personal information and take their pictures", Sharmin says, "I continued to ignore my fear, and this is how we did Khana registration". It was a struggle for Sharmin's team to get accepted and especially the Khana registration brought up emotions among the refugees that had fled genocide and years of persecution at the hands of the Myanmar state. "It did take time to make a place in their hearts for us", Sharmin says, "but now they are open and let us into their homes".

We arrive at a shelter and Sharmin remove her sandals and prepared to enter. She pulls back the curtain separating the house from the street and talk to those inside. Sharmin gestures us to move inside with a flick of her writs. The shelter is typical of the camp, around four times four meters comprised of tarpaulin over a baboo frame. We are let into the first of two rooms; there are no windows or ventilation. An adolescent girl greets Sharmin with affection. We have arrived today because the girl's mother has been crying and neighbours have alerted Sharmin. The girls name is Samara, and she brings out her grandmother and mother. Their names are Jamila and Fatima. Samara and Jamila speaks in low voices and says that Fatima, Samara's mother, has been possessed. She is reported to be crying through the nights and hardly ever to utter a word. Sharmin, the medical assistant, says that she thinks Fatima looks sad. Perhaps Fatima would consider a test to determine her mental state, she asks, and pulls the Samsung tablet from her bag. However, there is no test to be had. Fatima is not speaking nor willing to undergo the SRQ-20 questionary digitised and ready on the tablet in Sharmin's hands. This is not uncommon. Rohingya usually do not seek medical or psychological treatment if they believe a person is possessed by a spirit but may approach traditional healers who perform rituals, religious practices, and pray. We sit there for a while – moved by Fatima's dark sunken eyes visible just above the scarf she has drawn across her face to shelter from the men in the room. Sharmin hands out over-the-counter drugs - cough medicine to help the women breathe. Respiratory conditions are common among the Rohingya women in the

[1] The Majhi is a local leader selected by the community to represent those that live within a camp block.

camp. Breathing the stale air of the home makes it easy to understand why. Outside a small gathering have assembled, mostly people from the block seeking Sharmin's attention. An adolescent boy asks for attention on his mother behalf, and Fatima withdraws further into the shelter as people peek into the room where we are sitting. We break up and Sharmin picks up her bag and hands it to her male colleague outside to continue their rounds. We follow.

A few days later we inquire about the wellbeing of Fatima. She is all-right in the sense that Sharmin, was finally able to persuade her to take the SRQ-20 test, and in the course of doing so secure a referral for her. Sharmin was able to persuade her a few days later after all the hustle and bustle of our visit had died down. They needed time to talk. Fatima's score was well above the cut-off point of 7. "Now, she can finally go and see a counsellor", Sharmin remarks.

In lieu of a conclusion: The moods and the numbers

The starting point of our ethnographic work was experiencing life in Kutapalong refugee camp through the perspective of the medical assistants on house calls.

In some cases, the medical assistants have been going to their clients' dwellings repeatedly for months, if not years, and in the process immersed themselves in the atmosphere of the homes they visit. The medical assistants may tune into the lifeworld of the refugees as they provide them services. Being sensitive to changes in mood and atmosphere. The own lifeworld is one that they in part share with the refugees. The refugees may draw the medical assistants into the way in which they are. Attunement to the refugees is part of being-in-the-world with them, to use an expression from Heidegger, and it makes the medical assistants sensitive to their moods. Their being with the refugees, alters them, although the medical assistants do not necessarily come to feel anxious, sullen, desperate, or sad themselves, or for that matter happy or excited, they do become attuned. At times, they may look to the SRQ-20 for confirmation, and ultimately referral, when changes in those moods and atmospheres are for the worse. The epistemics of being in the world is cooperated by the epistemics of a medical survey instrument. The mood or atmosphere of a refugee dwelling may set a tone, a mood is like a melody Heidegger notes, that may be picked up by the medical assistants, being there, and in turn lead them to use the SRQ-20.

The refugees, then, may draw the medical assistants into the way in which they are. Attunement to the refugees is part of being-in-the-world with them, to use an expression from Heidegger, and it makes the medical assistants sensitive to their moods. Their being with the refugees, alters them, although the medical assistants do not necessarily come to feel anxious, sullen, desperate, or sad themselves they become attuned. At times, they may look to the SRQ-20 for confirmation, and ultimately referral, when changes in those moods and atmospheres are for the worse. The epistemics of being in the world is cooperated by the epistemics of a medical survey instrument. The mood or atmosphere of a refugee dwelling may set a tone, a mood is like a melody Heidegger notes, that may be picked up by the medical assistants, being there, and in turn lead them to use the SRQ-20. The epistemics of being in the world is cooperated by the epistemics of a medical survey instrument.

Arguably, numeration may provide a sense of certainty and legitimacy important for the act of referral. Numeration, we think, can in some cases be said to extend the sensory experience by imputing it with authority and connect it to a wider medical infrastructure. The medical assistants are counting their clients' symptoms when they screen them with SRQ-20. These symptoms come from a finite set of twenty symptom's

given in advance by the WHO. Arguably, the SRQ-20 on the tablet computers of the medical assistants represent the dominant model of 'Western medicine' and it gets its authority from there. The medical assistants are, in a word, leaning on the authority of the SRQ-20, and "Western medicine", when they refer via the questionnaire. Sensory experience may not be 'enough' on its own to warrant referral in the context of the health care infrastructure of the camp, and therefore the agency of numeration is a force that works well as an ally to the sensory impressions of the medical assistants.

Arguably, then, what we have noticed above is a dance of agency between sensory experience and numeration in the screening for mental health issues by the medical assistants in the camp. Future studies may benefit from a heightened sense of how numeration and sensory experience may combine, re-enforce, and mangle in practice. To reiterate, previous studies have long been occupied with what quantified data in the form of numbers mean and what they 'do' (e.g., Day et al 2014), and studies of mental health has benefitted from a phenomenological perspective of lived sensory experience (e.g., Gammeltoft 2018). We have in this paper explored numeration and sensory experience in mental health services and find, numeration and sensory experience intersecting inseparably in practice.

Acknowledgements

We would like to sincerely acknowledge the important contribution of the Novo Nordisk Foundation (grant no. 0055633) and the support of Mr. Anders Bager. Furthermore, we would like to warmly thank Mrs. Runa Khan, Founder and Director of Friendship, and all the Friendship staff, for making the project a success. We would especially like to thank Subrata Kumar Mandal, Colonel Iftekhar Uddin Mahmud, Dr. Kazi Golam Rasul, Mr. Mahbubur Rahman Turza. Mr. Mohammad Enamul Haque, Dr. Rafi Abul Hasnath Siddique, Md. Awlad Hossain, Mr. Tarique Amin Bhuiyan, Md. Shamim, Dr. Md. Borhan Uddin, Mr. Mahbubur Rahman Ujjal, Dr. Sayeda Mousumi, Dr. Kazi Ishrat Sharmin, and Ms. Tasmiah Haque. Also, we would like to thank Mrs. Anna Sommer for her invaluable support. Last, but not least, we would like to thank the Medical Assistants, Program Coordinators, and the Rohingya participating in the study for their contributions and for letting us take up so much of their time.

References

Beusenberg, M., and J. Orley.
1994 A User's Guide to Self Reporting Questionaire (SRQ): Division of Mental Health WHO.

Blomberg, Jeanette, and Helena Karasti
2013 Reflections on 25 Years of Ethnography in CSCW. Computer Supported Cooperative Work (CSCW) 22(4-6):373-423.

Charlson, Fiona, et al.
2019 New WHO prevalence estimates of mental disorders in conflict settings: a systematic review and meta-analysis. The Lancet 394(10194):240-248.

Christensen, L.R.
2014 Techno-anthropology for Design. *In* What is Techno-anthropology? T. Børsen and L. Botin, eds. Pp. 385-405. Aalborg: Aalborg University Press.

Christensen, L.R., H. Ahsan, and S.K. Mandal
2020 Rohingya mHealth: Investigating Mental Health in Kutupalong Refugee Camp. Intervention Journal of Mental Health and Psychosocial Support in Conflict Affected Areas 18(2).

Christensen, L.R., et al.
2019 Are You Magicians? The Collaborative Work of an Agricultural Information Service, In the Proceedings of the Tenth International Conference on Information and Communication

Technologies and Development. Ahmedabad, India. . *In* Tenth International Conference on Information and Communication Technologies and Development. . Ahmedabad, India. : ACM.

Christensen, Lars Rune
2015 On Intertext in Chemotherapy: an Ethnography of Text in Medical Practice. Computer Supported Cooperative Work (CSCW) 25(1):1-38.

Christensen, Lars Rune, Hasib Ahsan, and Eshrat Akand
2018 Krishi Kontho: an agricultural information service in Bangladesh. *In* Proceedings of the 10th Nordic Conference on Human-Computer Interaction. Pp. 203-214. Oslo, Norway: ACM.

Day, Sophie, Celia Lury, and Nina Wakeford
2014 Number ecologies: numbers and numbering practices. Distinktion: Journal of Social Theory 15(2):123-154.

Desrosières, A.
1998 The Politics of Large Numbers: A History of Statistical Reasoning. Cambridge Mass.: Harvard University Press. .

Espeland, W.N. , and M. Stevens
2008 A Sociology of Quantification. Arch. Europ. Sociol. XLIX, 3:401- 436.

Hacking, I.
1990 The Taming of Chance. Cambridge: Cambridge University Press.

Heidegger, Martin.
1962 Being and Time. J.M.a.E. Robinson, transl. New York: Harper & Row.

Lippert, I. , and H. Verran
2018 Editorial: After Numbers? Innovations in Science and Technology Studies' Analytics of Numbers and Numbering. Science & Technology Studies 31(4):2-12.

Netsereab, Tesfit Brhane, et al.
2018 Validation of the WHO self-reporting questionnaire-20 (SRQ-20) item in primary health care settings in Eritrea. International Journal of Mental Health Systems 12(1):61.

Petersen, Anette C. M., et al.
2021 "We Would Never Write That Down": Classifications of Unemployed and Data Challenges for AI. Proc. ACM Hum.-Comput. Interact. 5(CSCW1):Article 102.

Porter, T. 1995.
1995 Trust in Numbers: The Pursuit of Objectivity in Science and Public Life. Princeton: Princeton University Press. .

Rose, N.
2004 Powers of Freedom: Reframing Political Thought. Cambridge: Cambridge University Press. .

Scott, J.
1998 Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed. New Haven: Yale University Press. .

Tay, A.K., et al.
2019 The culture, mental health and psychosocial wellbeing of Rohingya refugees: a systematic review. Epidemiology and Psychiatric Sciences 28(5):489-494.

Tellioğlu, Hilda, and Ina Wagner
2001 Work Practices Surrounding PACS: The Politics of Space in Hospitals. Comput. Supported Coop. Work 10(2):163–188.

UNHCR
2019a Refugee response in Bangladesh, Vol. 2020. https://data2.unhcr.org/en/situations/myanmar_refugees.

—
2019b UNHCR Statistical Yearbook Vol. 2020. Geneva: UNHCR.

van der Westhuizen, Claire, et al.
2016 Validation of the Self Reporting Questionnaire 20-Item (SRQ-20) for Use in a Low- and Middle-Income Country Emergency Centre Setting. International Journal of Mental Health and Addiction 14(1):37-48.

Verran, H.
2012 Number. *In* Inventive Methods. C.L.a.N. Wakeword, ed. Pp. 110-24. London: Routledge, .