

**ABSTRACT BOOK
UNITING STREAMS TURBO-TALK SESSIONS**

Annual NVTG symposium 'Mind Matters'
Friday 22nd of January 2021
16:00 – 16:30 hrs

Abstracts

Parallel session 1: Global Mental Health

1. **Rebecca Boogaard** - Life after the 74th genocide - Addressing collective trauma of the Yazidi community in Northern Iraq and its implications for sustainable return
2. **Eline Klein Onstenk** - Association between body mass index and physical activity in people with severe mental illness in Bangladesh
3. **Caroline Arnbjerg** - Psychoeducation for patients with Bipolar Disorder in Rwanda

Parallel session 2: Global Mental Health & Infectious Diseases

4. **Emmanuel Musoni-Rwililiza** - Knowledge assessment, practice, and attitude towards bipolar disorder among patients and the community in Rwanda
5. **Julian Neylan** - The Impact of the COVID-19 Pandemic on Addiction, Substance Use, and Harm Reduction for Vulnerable Populations in Ukraine
6. **Bony W. Lestari** - Test and treat for Tuberculosis in Indonesia: what are the challenges?

Parallel session 3: Infectious Diseases

7. **Daphne Bussink-Voorend** - The impact of the COVID-19 pandemic on the utilization of hospital services in rural Sierra Leone
8. **Todia Setiabudiawan** - What protects people from Mycobacterium tuberculosis infection?
9. **Fitsum Tadesse** - Anopheles stephensi Mosquitoes as Vectors of Plasmodium vivax and falciparum in Ethiopia

Parallel session 4: NCD & Maternal and Child Health (hosted by Share-net)

10. **Merel Stevens** - Interventions to reduce mortality among preterm and low-birthweight neonates in LMICs: a systematic review and meta-analysis
11. **Julia Tankink** - Joining hands to support birth care for refugees in the Netherlands: the EGALITE project
12. **Gaby Ooms** - Snakebites and community beliefs, patient profiles, health-seeking behaviour, and its consequences in Kenya

1. Life after the 74th genocide - Addressing collective trauma of the Yazidi community in Northern Iraq and its implications for sustainable return

Rebecca R. Boogaard

Affiliation presenting author: Cordaid --- Junior MHPSS expert

Keywords: Collective trauma, sustainable return, genocide

Abstract

Six years after the Islamic State's genocide on the Yazidi community in Northern Iraq, the scars of ethnic cleansing still deeply mark the souls and minds of survivors. The wide scale of trauma-related problems in contrast to the limited response capacity led to the need for research on the determinants of collective trauma, the needs for improving community mental health and psychosocial wellbeing and its relation to promoting sustainable returns.

The study applied a combination of literature research and qualitative and quantitative data collection through key informant interviews and door-to-door questionnaires with male and female returnees.

The findings show the complexity of trauma and multidimensional factors within the socio-economic context that are of influence on the psychological wellbeing of community members.

Poor living conditions, lack of safety and economic opportunity, combined with continuing impunity and lack of recognition of their suffering and human rights, were the strongest factors hindering an enabling environment for sustainable return or healing and recovery from trauma. Facilitating healing through enhancing a safe environment combined with MHPSS interventions that target the wider community appears to be a priority. The results suggest adopting a multi-layered approach towards collective trauma healing that targets national, community and interpersonal/family-level needs.

2. Association between body mass index and physical activity in people with severe mental illness in Bangladesh

Eline R. Klein Onstenk, M. van der Hoeven, A. Haidar, R. Huque, H. Khalid, S. Rajan, N. Siddiqi, G. Zavala

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Keywords: Physical activity, BMI, Bangladesh

Abstract

Context - People with severe mental illness (SMI) have higher prevalence of obesity and lower engagement in physical activity (PA) compared to the general population. Despite the burden of obesity and large inequalities for people with SMI, data on the prevalence and association between PA and obesity is lacking in LMICs.

Methods - This cross-sectional survey randomly selected 1418 patients with SMI from the National Institute of Mental Health in Bangladesh in 2019. We used the Global physical activity questionnaire (WHO) to assess vigorous PA (0/ >0 minutes), moderate PA (0/ >0 minutes) and walking/cycling (<10/ ≥10 minutes). We measured height and weight and calculated BMI following WHO cut-off scores. We used logistic regression to determine the association between obesity and PA, adjusted for age, gender, setting, educational level and diagnosis.

Results - 9.7% of the participants were obese, 11.8% engaged in vigorous PA, and 60% engaged in more than 10 min of walking/cycling. Obese participants had lower odds (O.R.=0.582, 95%CI=0.394 to 0.858, p=0.006) of engaging in ≥10 min of walking/cycling compared to participants with normal weight. However, no association was found between obesity and moderate or vigorous PA.

Conclusion - People with SMI in this setting could benefit from interventions to promote PA.

3. Psychoeducation for patients with Bipolar Disorder in Rwanda

Caroline J. Arnbjerg, Emmanuel Musoni-Rwililiza, Laetitia Nyirazinyoye, Jessica Carlsson, Darius Gishoma, Per Kallestrup

Affiliation presenting author: Center for Global Health, Department of Public Health, Aarhus University, Denmark and 2College of Medicine and Health Sciences University of Rwanda, Rwanda --- PhD student

Keywords: Bipolar, Rwanda, Psychoeducation

Abstract

Background: Mental health- and neurological disorders constitute 13% of the global burden of disease. Alarmingly this burden has risen by 41% in the last 20 years. In low-and-middle-income countries, as few as 10% of people living with bipolar disorder receive care. In western countries, the efficacy of psychoeducation as an add-on treatment to pharmacotherapy in treating symptoms and relapse prevention initiatives concerning bipolar disorder is well documented. Yet, few studies on psychosocial interventions for bipolar disorder have been conducted in a low-income country.

Aim: To determine the effect, feasibility, and acceptability of psychoeducation for patients with bipolar disorder in Rwanda and increase the detection of under-treated cases.

Methods: Outpatients with bipolar disorder at the referral hospitals will be randomized into group-psychoeducation or a waiting list. Moreover, traditional healers, religious leaders, and community health workers will be trained in using the Mood-Disorder-Questionnaire at the community level.

Outcomes: Reduction in symptom severity and incidence of relapse, improved quality of life, medical adherence, and reduced self-stigmatization as well as enhanced knowledge.

Perspectives: If proven successful, potential positive outcomes may be implemented in similar low-resource settings elsewhere and may contribute to closing the huge treatment gap in mental health.

4. Knowledge assessment, practice, and attitude towards bipolar disorder among patients and the community in Rwanda

Emmanuel Musoni-Rwililiza, Caroline J. Arnbjerg, Laetitia Nyirazinyoye, Jessica Carlsson, Darius Gishoma, Per Kallestrup

Affiliation presenting author: Center for Global Health, Department of Public Health, Aarhus University, Denmark and The University Teaching Hospital of Kigali, Rwanda --- PhD student

Keywords: Bipolar, Rwanda, community

Abstract

Background: Bipolar disorder (BD) causes alterations in mood, energy, activity levels, and the ability to carry out daily tasks. With the lifetime prevalence between 1.4 to 6.4% worldwide, BD is considered both chronic and disabling, with a significant risk of mortality as the lifetime risk of suicide is 20 times that of the general population. The psychopathology, different treatment practices, efficacy, and course of BD are poorly described in low-income and middle-income countries.

Aims: 1. To explore the perceptions and experiences with the mental health system in Rwanda among patients with BD and their relatives to obtain information that can identify different treatment practices and their efficacy. 2. To assess the experience, knowledge, and practice of caregiving for individuals with BD among Traditional Healers, Religious Leaders, Community Health Workers (CHWs), and mental health nurses.

Methods: Focus group discussion will be conducted with participants from the following populations: Patients with BD, family members of the patients, Traditional Healers, Religious Leaders, CHWs, and mental health nurses. Each focus group will consist of approximately ten individuals from the same population.

Outcomes and Perspectives: The research project will give qualitative clarifications on the knowledge and attitudes toward BD among all strata surrounding the patient.

5. The Impact of the COVID-19 Pandemic on Addiction, Substance Use, and Harm Reduction for Vulnerable Populations in Ukraine

Sonny S. Patel, [Julian Henri Neylan](#), Oleksandr Zvinchuk, Oleksii Sukhovii, Timothy B. Erickson

Affiliation presenting author: Leiden university --- Post-masters researcher

Keywords: Conflict, Substance Abuse, Ukraine

Abstract

Since the Russian annexation of the Autonomous Republic of Crimea and the occupation of parts of Donetsk and Luhansk regions, Ukraine has been facing escalating security and health care challenges. The six-year war in East Ukraine has contributed to the rise of substance and alcohol use and addictions among veterans, internally displaced persons, and civilian survivors. These addictions which were already highly problematic for the general Ukrainian population prior to the conflict have escalated dramatically in volume. Now with COVID-19 there are growing concerns over the adoption of maladaptive coping strategies among the public. This paper highlights the urgent need for further funding and research on substance and alcohol addiction with these vulnerable populations affected by the ongoing conflict in Ukraine during the current COVID-19 pandemic.

6. Test and treat for Tuberculosis in Indonesia: what are the challenges?

Bony W. Lestari, Susan McAllister, Panji F. Hadisoemarto, Nur Afifah, Megan Murray, Bacht Alisjahbana, Reinout van Crevel, Philip C. Hill

Affiliation presenting author: Department of Internal Medicine, Radboud Institute for Health Sciences, Radboud university medical center, Nijmegen, The Netherlands - PhD candidate

Keywords: Tuberculosis, Indonesia, TB diagnosis and treatment

Abstract

Background - An estimated 1 million people develop tuberculosis (TB) in Indonesia annually. But as there is misalignment between patients' preference and TB diagnostic capacity, around 40% are not diagnosed. My thesis focuses on patient's pathways to TB care and healthcare professionals' behavior in TB management.

Methods - First, I examined patient trajectories to TB diagnosis and treatment, and the associated costs. Second, I evaluated doctor's decisions making in public and private health services by sending actor-patients with different disease scenarios.

Results - Most patients first presented to informal providers or private doctors, all of whom lack TB diagnostic tests. Visiting multiple providers, it took them an average two months to get a TB diagnosis, with longer delays for patients without health insurance. One in three TB patients experienced catastrophic financial costs due to hospitalization, diagnostic tests and consultations.

Only one third of private providers correctly managed patient with classic-TB associated symptoms, only 30% used microbiological testing. With regard to treatment, only 50% prescribed anti-TB drugs correctly.

Conclusion - These findings reveal the complexity of TB control in Indonesia. A simple and sensitive point-of-care test, decentralization of TB care, increasing uptake of health insurance and re-educating providers on TB management are urgently needed.

7. The impact of the COVID-19 pandemic on the utilization of hospital services in rural Sierra Leone

D.M. (Daphne) Bussink-Voorend, Heleen M. Koudijs

Affiliation presenting author: Lion Heart Medical Centre, Sierra Leone --- MIH student @KIT

Keywords: COVID-19, Sierra Leone, indirect effects

Abstract

While the magnitude of the first wave of the Covid-19 pandemic as seen in other parts of the world was far less in Sub-Saharan Africa, the lockdown measures to halt its spread were rigorous. This was also the case in Tonkolili district in Sierra Leone, where COVID-19 was initially treated as if Ebola had returned. In the Lion Heart Medical Centre, a 70-bed hospital serving the population of a rural and hard to reach area, we observed a substantial decrease in utilization of regular hospital services during and after the lockdown, despite the implementation of infection prevention- and community awareness measures. Preliminary results from a hospital statistics analysis comparing 2019 monthly data with corresponding months in 2020 show a 66% reduction of institutional deliveries, a 47% reduction of under-five admissions and an 82% reduction of outpatient consultations for chronic conditions during the lockdown (Apr-Jun 2020). In the post-lockdown period (Jul-Dec 2020), utilization of hospital services for acute conditions quickly restored to normal levels in contrast to hospital services for chronic and less severe conditions. These results suggest a high indirect morbidity and mortality burden of the COVID-19 pandemic, adding to the vulnerability of the underserved catchment population.

8. What protects people from Mycobacterium tuberculosis infection?

Todia P. Setiabudiawan, Valerie A.C.M. Koeken, Reinout van Crevel

Affiliation presenting author: Department of Internal Medicine, Radboud University Medical Center, Nijmegen, The Netherlands --- PhD student

Keywords: Mycobacterium tuberculosis, innate immune memory, multiomics integration

Abstract

Even when heavily exposed to infectious tuberculosis (TB) patient, some people will remain uninfected. My thesis will focus on understanding this phenomenon, which is critical to improving TB preventive strategies such as vaccination.

I will do this by using archived blood specimens from 1347 household members of patients with sputum-smear positive TB in Indonesia, who either acquired Mycobacterium tuberculosis infection, as measured by an interferon-gamma release assay, or remained uninfected.

Using whole blood RNA-sequencing, I aim to identify gene expression profiles associated with protection against infection. Similarly, using plasma metabolomics, I aim to identify relevant metabolic pathways. Further, integration with available genome-wide SNP typing data enables eQTL and mQTL analysis to find the genetic basis and, potentially, the regulatory mechanism for protection against M. tuberculosis infection. Finally, I will examine the relevance of identified genes or pathways in M. tuberculosis macrophage infection models.

Based on the studies' findings, I plan to help design a randomized clinical trial targeting the relevant genes or pathways to improve protection against M. tuberculosis infection. This interventional study would be essential for developing better TB preventive strategies and could lead to better global TB control.

9. *Anopheles stephensi* Mosquitoes as Vectors of *Plasmodium vivax* and *falciparum* in Ethiopia.

Fitsum Tadesse, Teun Bousema

Affiliation presenting author: Radboud university medical centre --- Postdoc

Keywords: *P. falciparum*, vector, Ethiopia

Abstract

Anopheles stephensi, an efficient Asian malaria vector, recently spread into the Horn of Africa and may increase malaria receptivity in African urban areas. We assessed occurrence, genetic complexity, blood meal source and infection status of *An. stephensi* in Awash Sebat Kilo town, Ethiopia. We used membrane feeding assays to assess competence of local *An. stephensi* to *P. vivax* and *P. falciparum* isolates from clinical patients. 75.3% of the examined waterbodies were infested with *An. stephensi* developmental stages that were genetically closely related to isolates from Djibouti and Pakistan. Both *P. vivax* and *P. falciparum* were detected in wild-caught adult *An. stephensi*. Local *An. stephensi* was more receptive to *P. vivax* compared to a colony of *An. arabiensis*. We conclude that *An. stephensi* is an established vector in this part of Ethiopia, highly permissive for local *P. vivax* and *P. falciparum* isolates and presents an important new challenge for malaria control.

10. Interventions to reduce mortality among preterm and low-birthweight neonates in LMICs: a systematic review and meta-analysis

Mirjam Y. Kleinhout and Merel M. Stevens, Kwabena A. Osman, Kwame Adu-Bonsaffoh, Floris Groenendaal, Nejimu B. Zepro, Marcus J. Rijken, Joyce L. Browne

Affiliation presenting author: Sint Antonius Ziekenhuis and Julius Centre for Health Sciences and Primary Care, University Medical Centre Utrecht --- clinician

Keywords: neonatal mortality, preterm birth, global child health

Abstract

Preterm birth is the leading cause of under-five-mortality world-wide, with the highest burden in low- and middle-income countries (LMICs). The aim of this study was to synthesise evidence-based interventions for preterm and low birthweight (LBW) neonates in LMICs, their associated neonatal mortality rate (NMR), and barriers and facilitators to their implementation. This study updates all existing evidence on this topic and reviews evidence on interventions that have not been previously considered in current WHO recommendations.

Six electronic databases were searched for randomised controlled trials reporting NMR of preterm and/or LBW newborns following any intervention in LMICs.

Forty-nine studies were included. They reported on 39 interventions in 21 countries with 46993 participants. High-quality evidence suggested significant reduction of NMR following antenatal corticosteroids, cord and skin cleansing with chlorhexidine, early BCG vaccine, community kangaroo mother care and home-based newborn care.

The findings of this study encourage the implementation of additional, evidence-based interventions in current (WHO) guidelines and to be selective in usage of antenatal corticosteroids, to reduce mortality among preterm and LBW neonates in LMICs. Given the global commitment to end all preventable neonatal deaths by 2030, continuous evaluation and improvement of current guidelines should be a priority on the agenda.

11. Joining hands to support birth care for refugees in the Netherlands: the EGALITE project

Julia Tankink, Hanneke de Graaf, Peggy van der Lans, Arie Franx

Affiliation presenting author: Erasmus MC Rotterdam --- PhD Student

Keywords: maternal health, refugees, mixed-methods

Abstract

Objective: The EGALITE project aims to contribute to reducing perinatal health inequities between women with and without a refugee background in the Netherlands.

Design: The EGALITE project consists of multiple phases and uses a mixed-methods approach.

Phase 1 (2020-2021) Pregnancy outcomes will be compared between refugees and the general Dutch population by matching data from national registries. Furthermore, an evaluation of access to, organization of, and experiences with birthcare will be carried out. Additional data regarding social- and substandard care factors as well as mental health outcomes in pregnant refugees will be collected prospectively.

Phase 2 (2021-2022) Findings from the forementioned studies will be translated into a novel program of targeted interventions (a “toolkit”) to align care provision with identified needs.

Phase 3 (2022-2023) The developed toolkit will be pilot-tested, recommendations for implementation or further development will be given and results and materials will be disseminated.

Study population: The study population includes pregnant women in the Netherlands with a legal status as asylum seeker or who recently obtained a residence permit and their newborns; in addition, care providers and stakeholders from the social domain will be engaged.

Main determinants and outcomes: Both quantitative outcomes (maternal and perinatal mortality and morbidity) and qualitative outcomes (experiences and patient narratives) will be analyzed. The main determinants include demographic, obstetric, social and care-related risk indicators.

12. Snakebites and community beliefs, patient profiles, health-seeking behaviour, and its consequences in Kenya

Gaby Ooms, Janneke van Oirschot, Benjamin Waldmann, Dorothy Okemo, Aukje K Mantel-Teeuwisse, Hendrika A van den Ham, Tim Reed

Affiliation presenting author: Health Action International --- PhD Student

Keywords: snakebite envenoming; patient profiles; health-seeking behaviour

Abstract

Annually, about 2.7 million snakebites occur, primarily affecting those living in rural regions. Effective treatment is scarce, and traditional treatments are commonly used. This research aimed to fill gaps in knowledge on the snakebite situation in Kenya. Non-probability sampling was used to survey 382 respondents from four snakebite-endemic counties. Analysis was done using descriptive statistics, binary logistic regressions, Mantel-Haenszel tests and Fisher's Exact tests. Life-time experience with snakebites ranged from 13.1% (personally bitten) to 37.4% (community member bitten). Death after a snakebite was indicated by 9.1% (community member bitten) and 14.6% (family member bitten) of respondents. The majority of victims were aged 26-45 years, and were most often walking or farming when bitten. Traditional healing was commonly used (42%). Preventive measures widely known were wearing shoes and carrying a light in the dark, and the most commonly known first aid methods included tourniquets, black stones and cutting the bite. Significant differences existed in perceptions on the financial consequences of snakebites among those who had been personally bitten and those who had observed a snakebite. A multipronged approach is needed to reduce snakebites, consisting of community education on preventive measures and health-seeking behaviour, and health system strengthening so adequate treatment is available at facilities.