

Program/Project Purpose: Exposure to community-wide trauma during childhood, such as the Ebola epidemic, is linked to long-term physical and mental health consequences. Psychosocial and mental health services are known to reduce the impact of trauma, yet access is inadequate in resource limited communities. Child-centered, expressive art therapy techniques are proven to improve health outcomes after a traumatic event. In June 2015, Playing to Live (PTL) launched an innovative psychosocial support program utilizing expressive arts techniques to meet this service gap in Liberia. The program targeted 40 former hot-zone communities, providing programming to over 850 children and 140 adults affected by Ebola. Research demonstrated a statistically significant impact in reducing symptoms of psychosocial stress (PSS) experienced over time.

Structure/Method/Design: This innovative program trained non-clinicians in foundational techniques of expressive play and art therapy and built transferrable skills within the community that could be utilized both during and after the program implementation. Desired outcomes included a reduction in the number of PSS symptoms in children participants and an increase in techniques for combating the effects of trauma. PTL partnered with Renewed Energy Serving Humanity (RESH) to implement programming; RESH is a Liberian NGO selected for their community based focus and shared goals to serve the holistic needs of children and community members.

Outcome & Evaluation: Study participants included children 3–13 years old affected by Ebola in Liberia during 2015. Participants were randomly selected and divided into two treatment groups; monitoring and evaluation was completed using qualitative and quantitative methods. A statistically significant difference in the average reduction of PSS symptoms was identified between the 5-month and 3-month treatment groups'. The 3-month program exhibited a 15% reduction in symptoms whereas the 5-month program exhibited a 38% reduction. A difference of 23% was identified; these results suggest that longer exposure to the intervention results in a greater reduction in PSS.

Going Forward: Challenges include funding and sustainability. Despite program success funding was not available after the program conclusion. Due to community commitment, services and trainings continue to be provided by volunteers. PTL seeks to ensure trainings provides community members with long-lasting skills and tools to meet the long-term psychosocial needs. Additional funding for service increase is needed.

Source of Funding: Funding was provided by UNICEF.

Abstract #: 1.017_NCD

Money or Knowledge? Behavioral Aspects of Malnutrition

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Background: Malnutrition accounts for nearly half of child deaths worldwide. Children who are well-nourished are better able to learn in school, grow into more physically capable adults, and require less health care during childhood and adulthood. Moreover, it is difficult to make up for poor childhood nutrition later in life. Prior surveys from the study region, Oromia, Ethiopia, suggest that many

mothers know how to correctly respond to a hypothetical situation where a young child exhibits poor growth. However, mothers frequently appear unaware about their own children's growth deficiencies. Together, these facts suggest that false beliefs about the appropriateness of a child's physical size are a more likely contributor to malnutrition, rather than a weak understanding of how to help a malnourished child.

Methods: The study uses a two-by-two randomized trial; the first treatment is a cash transfer labeled for child food consumption, and the second is the provision of personalized information about the quality of the child's height compared to other children like those of the same age and gender in East Africa. Ordinary least squares regression analyses are used; when panel data are available, difference-in-difference analyses are conducted.

Findings: Young children in households that received either intervention were 2 to 5 times more likely to consume eggs and milk, two key protein sources that are available in the community but not typically consumed in large quantities by young children. Ninety five percent of caregivers who received the cash transfer reported spending the money themselves, and 86% report using at least some of the money for items only for young children. Over two thirds of caregivers receiving the personalized information remember their child's height quality after 6 weeks, and 60% reported some behavior change after learning about their child's height quality.

Interpretation: The intervention provides evidence on the relationship between caregiver beliefs about child nutritional status and the caregiver's behavior, ultimately analyzing how this relationship influences important nutritional choices for young children in a setting with limited resources. Better understanding of the interaction between these key factors is essential in addressing one of the foremost health issues facing developing countries today.

Source of Funding: Weiss Foundations of Human Behavior Vogelheim Hansen Harvard Committee on African Studies.

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I think we can be controlled: A Mixed-Method Comparative Study of Multidimensional Health Locus of Control and (un) Healthy Days in India and the United States

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Background: Global health education and health intervention strategies rely upon health behavior change models that assume individuals perceive they control their own health. Particularly in the context of economic and social inequality, this assumption may be false. Thus, achieving individual health improvement through behavior change can be challenging. This analysis aimed to evaluate if and how health locus of control - perception that one's health was controlled by internal or external factors - related to healthy/unhealthy days.

Methods: We conducted a global online study including samples from the United States (US) and India (N=505 each). Participants

were queried on basic health perceptions, attitudes, and health status, including the Multidimensional Health Locus of Control (MHLC) and the CDC's Healthy Days core questions (CDC HRQOL-4). MHLC ascertains whether an individual perceives their health is controlled by internal or external factors (with five subscales) and HRQOL-4 ascertains overall health status and healthy/unhealthy days. The unadjusted and adjusted (age, gender, education, and socioeconomic status) effects of MHLC scales on HRQOL-4 components were examined using generalized estimating equation (GEE) modeling.

Findings: After adjusting for covariates, MHLC-P (Powerful Others scale) was statistically significantly associated with poorer health in both the India and US samples; in particular, as perception that one's health was controlled by "powerful others" increased, the number of unhealthy days increased in both samples, after adjustment. Further, MHLC-P was significantly associated with poor mental health days, with increasing perception of control over one's health by powerful others associated with higher reported poor mental health days. Additionally, participants qualitatively indicated concern about access to their health information by employers, insurers, and others, and about social repercussions of inappropriate access to personal medical information.

Interpretation: This study provides compelling cross-national evidence that feeling one's health is controlled by "powerful others" is associated with an increase in poor quality of life and worsening subjective mental health. A perception of powerlessness across a range of global economic settings could interfere with the ability of health education and disease control efforts to improve health, emphasizing the imperative for better understanding health locus of control in delivering health interventions.

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Avoiding "A Massive Spin-off Effect in West Africa and Beyond": The Tobacco Industry's Role in Stymieing Tobacco Control in Nigeria

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Background: Nigeria plays important economic and political roles in Africa and is a significant market for the tobacco industry. This study describes the tobacco industry's efforts to block Nigeria's early tobacco control attempts, especially the Tobacco Smoking (Control) Decree 20 of 1990, and efforts to strengthen it in 1995.

Methods: Analysis of tobacco industry's internal documents publicly available at University of California San Francisco's Truth Tobacco Documents Library and other Internet sources related to Nigeria's Decree 20 and earlier tobacco control efforts.

Findings: The World Conferences on Smoking and Health and World Health Organization in the late 1970s spurred the Nigerian government to take steps towards tobacco regulation. The emergence of tobacco control in Nigeria threatened the tobacco industry, which feared that success in Nigeria would have a domino effect, spreading across Africa. The tobacco industry, in response, lobbied

government ministries, formed alliances, and created a trade group, the Tobacco Advisory Council of Nigeria (TACON), to block and weaken government's tobacco control efforts. The tobacco industry actively intervened to stall tobacco control in Nigeria since the 1970s, including blocking tobacco control laws in 1982 and 1983. While a tobacco control law (Decree 20) was passed in 1990, TACON had obtained a draft of Decree 20 two years before it was enacted, considered the Decree anti-business, and proposed changes in language that led to the passage of a weaker Decree. The tobacco industry also blocked the strengthening of the Decree in 1995.

Interpretation: This is the first detailed account of tobacco industry interference with tobacco legislation in Africa. Decree 20 was a strong law for its time, but was weakened due to tobacco industry interference. Nigeria ratified the WHO Framework Convention on Tobacco Control (FCTC) in 2005, and enacted a comprehensive National Tobacco Control Act (NTCA) in May 2015. The lessons learned from Decree 20's experience should be applied to protect NTCA 2015, from the tobacco industry's interference and possible attempt to weaken or block its implementation. This is in line with the WHO-Framework Convention on Tobacco Control Article 5.3, requiring parties to protect tobacco control policies from the tobacco industry's interference.

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Relationship Between Patients Sense of Wellbeing and Adherence to ARTs

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Background: Poor adherence to antiretroviral drugs can result in serious health consequences including emergence of opportunistic infections. There is limited data particularly in resource-limited settings like Nigeria that examines the relationship between sense of well-being and adherence to ARVs. Identification of negative correlates of adherence can contribute to developing a "risk profile" that care providers can use to identify patients "at risk" of being non-adherent and thus provide interventions to enhance adherence. This study explored the relationship between wellbeing and adherence to determine if patients' poor self-assessment of wellbeing could be considered a potential risk factor for poor adherence.

Methods: This is a retrospective study utilizing cross sectional review data of 1281 randomly selected HIV positive adult patients who had been on ART for at least nine months and responded to a six component survey administered as part of a patient – level evaluation carried out for quality improvement of service delivery at PEPFAR supported ART clinical sites in Nigeria. The survey included the WHO 5 well-being index. Patients responded to the five items on the index and adherence was assessed using a one month missed ARV doses recall. SPSS Pearson correlation analysis