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Global Approaches to Early Learning Research and Practice: An Introduction

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Abstract

This chapter introduces the issue, highlighting the importance of early childhood development and learning. © 2017 Wiley Periodicals, Inc.

There is currently great concern over the status of early childhood learning and development globally. The health, development, and learning of many young children in the developing world, children in indigenous populations, and children living in disadvantage (i.e., living in remote rural or impoverished urban areas) are at serious risk. Many of these children must also learn a new language in order to obtain an education, as the language of instruction is often an official language that may not be the child's first (home) language. Although access to education has improved under the United Nations Millennium Development Goals (United Nations Educational, Scientific, and Cultural Organization, 2015), and there are now programs being implemented in low- and middle-income countries that are aimed at improving instruction and learning, research and evaluation of the effectiveness of such programs are at present quite limited. Where such studies do exist, there are significant challenges ranging from a lack of validated culturally and/or linguistically appropriate assessments to difficulties with access and support from relevant authorities. There are also some successes and increasing interest among researchers and ministries of health and education to know which programs are effective and how best to overcome the many challenges faced by teachers, parents, governments, and the children themselves (e.g., see papers in the thematic issue on literacy interventions in low- and middle-income countries, edited by Gove, Mora, & McCardle, 2017).

In December 2015, Haskins Laboratories and its affiliated partners Yale University and the University of Connecticut, with additional support from organizations and universities in other nations and the United States, convened a meeting of leading international scientists, representatives from key governmental and nongovernmental organizations, and others working with programs in the developing world and disadvantaged populations. At that meeting, new cross-national collaborations were formed and plans discussed for next-generation efforts to improve the health, development, and learning of children from birth to age 7 (with a strong focus on contributions from developmental neuroscience). The meeting took a holistic approach to child health, development, and learning, with a shared focus on research, practice, and policy. This thematic issue reflects some of the key presentations and discussions of that meeting, as well as recommended next steps and progress toward them in addressing the urgent needs of one of the world's most vulnerable populations, young children.

The rationale for this 2015 Global Summit was to stimulate and shape new initiatives aimed at fostering research and training opportunities in the global community, coupling good intentions with culturally respectful partnerships. Difficulties in early language and literacy development and associated poor academic outcomes represent a public health crisis; children living in poverty and/or with neurodevelopmental challenges are most at risk. Because successful outcomes depend on the quality of language and cognitive experiences early in life, interdisciplinary research on this topic

must be a priority. Much of the research of the scientists who participated in the summit has focused on the identification of key genetic, neurobiological, and cognitive factors that induce risk, and on testing the efficacy of early interventions in at-risk children, both in their 2015 presentations and since that time. This work is the focus of the papers in this issue.

The aims of the authors for this proposed thematic issue are to heighten awareness of the goals, existing challenges, and potential approaches and to illustrate how they are addressing them with evidence-based early childhood programs in low- and middle-income nations and innovative research that has been often considered unfeasible in these contexts, (e.g., using neuroimaging and new learning/instructional technologies). Specifically, after the stage is set in an overview of the state of research, practice, and policy regarding early childhood and learning in the world today (Young), three papers describe interventions and activities in various regions of the world—Africa (Gove et al.), India (Joshi, Nakamura, & Singh), and Taiwan (Tzeng et al.). These are followed by papers on use of neuroimaging (Hoefl), cultural adaptation of interventions (Pakulak et al.), and technology that can bring research-based learning approaches to less well-resourced areas (Gottwald, Morris, & Wolf). The issue ends with a thoughtful commentary on the various challenges to research, practice, and policy raised by the paper authors (Landi & Cutting).

Although development of evidence-based approaches to risk reduction remains a significant challenge in the United States, this adversity is amplified in countries with more limited economic and institutional resources. There is an acute need for improved “on-the-ground” research incorporating the latest tools and technologies and for training opportunities with these tools for those specialists, researchers, and educators working on the front lines. As a result of the discussions at the 2015 summit, an international research collaborative was established to promote research on early childhood in low- and middle-income countries. Ongoing discussions focused on the development of brain-based measures that can transfer across languages and cultures include researchers from Haskins Laboratories, University of Jyväskylä (Finland), the National Brain Research Centre (India), Radboud University (the Netherlands), Bogota University (Columbia), National Central University (Taiwan), among other research institutions and nongovernmental organizations. Data collection with integrated cognitive and brain (electroencephalogram) measures is planned.

In addition, scientists at Haskins Laboratories, the Yale University Child Study Team, and the University of Connecticut have developed a plan for training doctoral students, postdoctoral fellows, and visiting professors from low- and middle-income countries, with a focus on methods and specific content areas (brain imaging, cognitive assessment, and statistical learning, in dyslexia, literacy, and language and communication disorders). In addition, students, postdoctoral fellows, and university faculty will participate in international field work that will improve training for

U.S. and other developed-nation scholars. This program, although in its early stages, should provide an even stronger basis for international research collaborations.

Researchers in this collaborative are also planning new, large-scale epidemiological studies examining the stress of poverty and its impacts on brain development in diverse high-risk environments in the United States and around the world. The goal is to develop brain-based models that are informed by diverse approaches.

It is our hope that the papers in this issue will heighten awareness of the need for strong international collaboration and cooperation in research, research training, and the implementation of programs based on what is already known, even as they gather further data on the interventions that have been developed and the challenges they face in having these efforts accepted and supported in the various countries. The conditions of poverty, changing policies, limited infrastructure, and instability in many regions have made accomplishing such work a continuously changing challenge. Many have used an iterative process of continuous adaptation and demonstrate how the use of empirical evidence can be convincing to health and education ministry officials. We hope that the innovative approaches and the transparent reporting of these efforts will not only heighten awareness of the needs and the projects to meet these but will also send a message of the value and attainability of international collaborations and hope for a brighter future for the world's young children.

References

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