



Enhancing Behavioral Health Workforce in Youth Mental Health through Grand Challenges in Social Work

Harold Eugene Briggs*, Shari E Miller and Adam Christopher Briggs

Department of Social work, University of Georgia, 310 East Campus Road, Room 219, Athens, Georgia 30602, USA

*Corresponding author: Harold Eugene Briggs, Department of Social work, University of Georgia, 310 East Campus Road, Room 219, Athens, Georgia 30602, USA, Tel: 503-804-9555; E-mail: briggs@uga.edu

Received date: December 13, 2015; Accepted date: February 22, 2016; Published date: February 29, 2016

Copyright: © 2016 Briggs HE, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Abstract

This paper identifies as a grand challenge the need to integrate curriculum innovation in social work to the identified need to increase the workforce capacity of behavioral health practitioners competent in inter-professional, best and research informed practice with families of children, adolescents, and transitional age youth. This paper highlights the relevance of the grand challenge paradigm as the context within which social work is best situated to hone its interprofessional curriculum to educate practitioners to meet the behavioral health needs of a children, adolescents, transitional age youth and their families. Within the grand challenges paradigm, this paper further articulates the need for enhanced clarity of competence for MSW and PhD educated social workers, for clear expectations that social work scholars' research have direct and translational community relevance, and it also presents a few of the advantages and limitations involved in adopting the grand challenge paradigm as a curriculum development and instructional standard in the academy of social work.

Introduction

Despite its many advancements and its ongoing efforts to relieve human suffering and to improve the wellbeing of humanity, the profession of social work has more work ahead to realize its mission as it applies to children, adolescents, and transitional age youth with behavioral health disorders, and their families. The National Research Council and Institute of Medicine [1] reported that annual costs associated with serious emotional and behavioral disorders among youth ages zero to 17 is estimated to be \$247 billion dollars. While these costs are staggeringly high, a relatively small fraction of youth with emotional and behavioral disorders actually come to the attention of the child mental health system. About 20% of children and adolescents in the U.S. have some form of serious emotional and/or behavioral disorder, and only 20% of them receive mental health treatment [2]. This dearth in services provision is likely the result of the lack of, adequate funding [3], service providers, and access to evidence based, best, and promising practices [4,5], as well as disparities associated with race and/or ethnicity [6].

There is a strong relationship between chronic health and behavioral health issues among children and adolescents. The National Survey of Children's Health (NSCH) [7] revealed that a third of all youth diagnosed with a behavioral or developmental problem had some form of a chronic physical health condition as well, and about 43.9% of children and adolescents with one behavioral or developmental problem were also likely to have experienced another behavioral health condition. It is within social work's ethical purview to identify these very types of disparities and then work steadfastly and collaboratively to marshal resources to make change. The scope of the challenge in this case is informed by a great deal of complexity. This paper emphasizes the need to locate this issue, and social work's responsibility to determine means to address it, within a grand challenge paradigm. With a focus on curriculum innovation toward interprofessional education and practice expertise, as well as translational research

rigor, this paper has three key aims, 1) to clarify and define the landscape of disparities in this area, 2) to then locate the intersection of the issue and social work's responsibility to address it in the grand challenge paradigm, and 3) to discuss the advantages and challenges associated with this proposed grand challenge.

Behavioral health disparities among youth and their families

When considering the intersection of the prevalence data reported above and public systems of care, disparities become even more stark and notable. Alumni of foster care are disproportionately at risk of experiencing homelessness and PTSD when compared to their counterparts in the general population [8]. Some 70% of youth in juvenile justice service delivery systems experience at least one form of mental disorder, and about 20% are suffering from a severe mental illness. Black youth are disproportionately placed in juvenile justice facilities while white youth are provided access to mental health services [9,10]. Children and adolescents from racially diverse backgrounds are subjected to differential diagnosis and clinical bias when compared to white youth [11,12]. In addition youth with parents who have less education and lower socio-economic status are more likely to experience mental health problems [13].

In addition to the significant influence of socio-economic status on the quality of mental health among youth is the role that gender and ethnicity play in the experience of disparities in mental health service use [14]. Overstreet et al. [6] highlighted the prevalence of mental health disparities for racially diverse groups; they reported that minorities are least likely to access and receive mental health treatment, have less than favorable mental health functioning, and typically do not participate in mental health research. In particular, Thomas et al., [14] noted that because low income, ethnically diverse, and female youth are less likely to be treated in mental health service systems their psychological issues go unrecognized.

Breland-Noble et al. [15] further illustrated the underutilization of mental health services by families of African American youth as a function of the confluence of a number of factors, including: lack of knowledge of emotional and behavioral health disorders and mental health efficacy for persons of color, demographic factors that collide with environmental factors such as cultural mistrust, social stigma, community resources, and family relationships, that decrease the likelihood of mental health service use [15]. Among youth mental health service users, white youth were more likely to report positive attitudes about care and indifference to stigma than youth of color [16], and white youth were more likely to receive adequate mental health care than non-white youth [17]. Whereas African American youth were more likely to use emergency room care as entry to mental health systems [18].

According to the National Institutes of Mental Health, mental illness is the major reason for 90% of suicides of children and adults in this country (as cited in NAMI)[19], and the CDC indicated that suicide is the 2nd major cause of death among children ages 10 to 24 (as cited in NAMI) [19]. The U.S. Department of Education noted that 54% of children and adolescents with serious emotional and behavior disturbances drop out of school [19]. These issues are truly a matter of life and death. Understanding both prevalence and access to services in the context of the complex intersection of cultural factors is essential.

Workforce Capacity Building

Though the need for professionals trained in prevention, primary health, and behavioral health is evidently high given the data, the number of actual behavioral health professionals in certain regions of the country is staggeringly low. One prime example is the the State of Georgia where there is a 27.3% vacancy rate for mental health professionals, and a 38% turnover rate for psychiatrists [20,21]. The Carter Center report [21] indicated that the State of Georgia is one of 10 states with the lowest number of practicing behavioral health professionals per 100,000 people in the population, ranking 42nd for psychologists, 41st for social workers, 40th for nurses, 30th for psychiatrists, and 28th for counselors. Along similar lines the APS Healthcare Gap Analysis Report [20] illustrated that staffing ratios among community service providers were not adequate to meet the needs for mental health services of low-income people with mental illness.

Based on labor and employment projections it has been estimated that more social workers with expertise with children and families and serving populations with primary health, substance abuse and mental health issues are needed. In order to address the intersection of behavioral health needs among youth and their families, disparities in services, and the challenges of workforce capacity, approaches for social work must factor in multiple systems, and a systematic approach inclusive of social work education, research, and community engaged collaboration. Defining this complexity within the context of a grand challenge paradigm provides the necessary vehicle for social work to address the combined workforce supply deficit and the escalating service system and therapeutic needs of families of youth at risk and with indicated behavioral health disorders.

Since the grassroots beginnings of the profession of social work, the role of science in the furtherance of its service effectiveness capacity [22,23] has been a point of challenge and focus [24]. Claghorn et al. [25] captured the essence best when she wrote:

“It is an American habit, when something goes wrong, to concoct a special plan for dealing with it—pass a law, form a committee. Adopt a scheme. But after the law is passed, the committee formed, the scheme in operation, our interest slackens, until something reminds us that the troubles are not, after all, remedied; when we again pass a law, form a committee, adopt a scheme, which again may prove ineffective. What we should do is to follow up our law, committee, or scheme, observe its operations, measure its results, and take our next action on the basis of past experience. This is especially necessary in the field of social work. How many plans have been adopted on the assumption that certain procedures would bring desirable results! How few have been tested to see how far the assumptions on which they are based has been verified!”

Social work as a profession responds to shifts in the social, political, and economic landscape in informing identification of problems but also resources and best practices in addressing those problems. Claghorn's et al. [25] perspective, however, remains relevant in the current era, and underscores what social work needs to do to optimize its capacity building and service effectiveness efforts. The nature of the challenges discussed in this paper are understood in the present as endemic to the global health crisis. To work toward mitigating the types of complex and multidimensional problems associated with health and human service delivery in the context of the global health crisis, the World Health Organization [26], the Institute of Medicine [27], the American Public Health Association [28], and the Council on Social Work Education [29] have all articulated strong support for interprofessional practice approaches. Social work is grounded in a collaborative ethos, and as such, social work should have a well-defined presence at the interprofessional table.

The increasing focus on interprofessional practice provides ample space for social work leaders, educators, and scholars to forge links between interprofessional behavioral health capacity building and the refinement of curricula informed by the clearly defined development of values, knowledge and skills competency, to a family and youth behavioral health service agenda in the field of children's mental health. Tying the need to increase the supply of trained behavioral health professionals working with children and adolescents to the grand challenge paradigm, leverages the capacity of schools of social work to track the: (a) assessment of students inter-professional behavioral health practice competencies, (b) the achievement of service effectiveness following student intervention efforts, (c) the effectiveness of faculty instruction, and , (d) other key inter-professional behavioral health education research outcomes. Thus, when used as both a service and research framework, the grand challenge paradigm can provide evidence in the context of the scholarship of teaching and learning, scholarship of discovery, scholarship of application, scholarship of integration, and scholarship of transferring discoveries to community adoption [30,31].

In 2014, rooted in President Obama's "Now Is The Time Initiative", the U.S. Department of Health and Human Services provided a pool of funds to the Health Resources and Services Administration (HRSA) and the Substance Abuse and Mental Health Services Administration (SAMHSA) to support Behavioral Health Workforce Education and Training Projects in over 100 universities with graduate degree programs emphasizing interprofessional education for behavioral health skill development training. Through this funding the federal government has made it possible for graduate programs to incentivize the increase in the supply of interprofessional behavioral health professionals. It has also enabled professional schools of social work,

psychology, and nursing to develop and deliver specified curricula that enhances capacity to achieve educational and workforce development aims while supporting the praxis missions of these professions. The very nature of this funding stream suggests not only clear need for effective models of interprofessional education to address workforce needs, but it underscores the need to think in integrated ways about issues and resources, and finding solutions in their points of intersection.

What is the Grand Challenge Paradigm?

By definition, grand challenges are “ambitious yet achievable goals that capture the public’s imagination and that require innovation and breakthroughs in science and technology to achieve” [32]. Kalil [32] identified the attributes and benefits of grand challenges as multifold. First, the areas in which grand challenges can make a difference and impact include “...health, energy, sustainability, education, economic opportunity, national security, or human exploration” [32]. Second, grand challenges are arduous and attainable goals. Third, grand challenges are captivating and inherently stimulating. Fourth, grand challenges are time sensitive with behaviorally specific aims. Fifth, a grand challenge framework instigates and guides the use of creative solution building across disciplines and provides evidence of progress and gains made by a professions seeking positive change.

“Grand challenges can catalyze innovations that foster economic growth and job creation, spur the formation of multidisciplinary teams of researchers, encourage multi-sector collaborations, bring new expertise to bear on important problems, strengthen the social contract between science and society, and inspire the next generation of scientists, engineers, and entrepreneurs to work on hard and important problems” [32].

Grand challenges as curricula enhancement strategy in schools of social work

Because of social work’s unique culture as both a pragmatic and applied profession as well as an academic discipline schools of social work are well positioned to leverage the grand challenges paradigm to build and deliver innovative mechanisms for educating social work practitioners for interprofessional behavioral health practice, as well as social work researchers who are equipped with the skills necessary to engage in translational research. Grand challenges are useful as teaching, research, and service platforms to resolve problems that adversely impact and threaten quality of life. Through multifocal applied educational approaches, students will be required to learn research supported practice approaches and to use these approaches in their field placements to implement change processes to positively impact families and youth with, or at-risk for developing behavioral health disorders.

The grand challenge paradigm marshals the science to address a major social problem, which includes a rigorous research agenda that informs the professional arena. In this instance, grand challenge research can accomplish this through a collaboration between educators, researchers, community based service providers, field instructors, and students seeking interprofessional behavioral health training.

To pursue grand challenges institution-wide, schools of social work will need to rethink and realign the silo context of the teaching, research, and service responsibilities of faculty to a service learning, theory-driven, problem-solution oriented practice [33] and

translational research culture [34]. A grand challenge eliminates the emphasis on silos, and integrates the primary functions of instruction, research, and service into one framework. The integration of faculty responsibilities into an intersecting grand challenge paradigm would involve field-centric classroom instruction, along with service learning-single subject/group design projects, research and evaluation coaching and mentorship, and diverse community collaboration skill building of students seeking MSW and PhD degrees in social work.

Establishing social service effectiveness while increasing interprofessional skill development

The prevalence of health and behavioral health issues and disparities among children and adolescents result from five core issues that will be addressed by (a) increasing the number of interprofessionally educated social workers, (b) infusing training in best and research informed practices among trainees and field instructors, and (c) providing inter-professional field placements rife with opportunities for student trainees to implement interventions that will result in positive behavior change and a social service impact.

Below are the five aforementioned core issues and curricula development action plans used by the University of Georgia School of Social Work Interprofessional Behavioral Health Education and Training team to increase the supply of trained interprofessional behavioral health social workers who have experience pursuing service effectiveness through their field placement settings:

- The lack of a diverse and sufficient supply of inter-professionally educated professionals negatively impacts the effective incorporation of culture in addressing the rising prevalence, assessment, and treatment of primary and behavioral health disorders among young Georgians.

Action: Recruit and place clinical students to engage in interprofessional education that emphasizing best, evidence based, and promising practice approaches for working with families of youth at risk and with indicated behavioral health disorders.

- The lack of an adequate emphasis on prevention in child, adolescent, transitional age youth, and family primary health and behavioral health service systems.

Action: Ongoing training of behavioral health field instructors and other network providers.

- The inadequate engagement and outreach capabilities to ensure access by children, adolescents, and transitional age youth with and/or at-risk of indicated primary health and behavioral health issues in rural and urban regions of the State of Georgia.

Action: Partnership with a statewide parent support network and behavioral health provider

- The dearth of evidence based and promising practice treatments available in child and family service systems.

Action: Delivery of Best Practices through interprofessional education for integrated collaborative practice.

- The lack of understanding of the use of best and evidence informed methods along with family and systems of care promising practices combined with limited knowledge of the organization and structure of effective service coordination mechanisms that ensure continuity of services for affected families of children and

adolescents involved in multiple child serving systems, and transitioning to adult behavioral health systems.

Action: Capstone training by two nationally ranked experts on family support, system of care and evidence based approaches in children's mental health modelling an authentic parent and professional collaborative culture of learning while conducting an educational and service impact outcome study of student trainees.

Through a grand challenge paradigm, students and interprofessional community based social workers can deliver evidence informed programs and services that could ultimately help to relieve threats to behavioral health while promoting well-being. This will involve the education and training of students in the science of behavior change with youth and families through the combination of classroom and applied experiential approaches. In this way a grand challenge educational experience becomes a mechanism to transfer interprofessional research and practice knowledge through graduate and professional education. Through this approach faculty teach students ways to apply the best available evidence acquired in classes to their field placements to structure and deliver interprofessional practice models that they can then carry forward into behavioral health practice post-graduation. These models encompass the implementation of evidence informed social work service to inform positive change, alleviating challenges and stressors that accompany families of youth with behavioral health disorders. As we envision the relevance of our grand challenge approach, we considered the experience of other helping professions.

For example, in the nursing and medical professions, students must not only achieve skills proficiencies, they must also demonstrate the effective use of these new tools by saving lives. Increasingly, since the early 1970's schools of social work are teaching students research informed practice approaches, which has made it possible to achieve the aforementioned culture of learning evidenced in nursing and medicine, in social work. In social work, students are assigned to client systems and are expected to conduct single case assessment, interventions, and evaluation of their social work practice across systems of all sizes. In this sense, students should be able to evaluate what they did, and also understand the conceptual underpinnings such that they can explain their numerical and descriptive understanding of the multiple factors that made an appreciable difference in the lives of an individual, family, or group, an organization or community.

Teaching students while addressing a grand challenge aligns the social problem with a curriculum comprised of the best available knowledge for resolving it. This approach will enable the student practitioners, practice instructor and researchers to do all they can with their community partners. They will also be able to effectively apply the available science to attempt to address problems and needs, while retaining the standards of academic excellence through evidence informed, best, and promising practices.

Given the ecological systems roots in social work, students seeking professional degrees should be responsible for establishing service effectiveness and making a service impact that integrates system levels. For example, approaches to practice should integrate micro level behavior change with an individual, a family, or a small group, with macro level system changes involving organization, community, or policy change. Achieving change in this way is consistent with social work's commitment to the wellbeing of person and environment.

Social work PhD programs educating scholars in the context of the grand challenge paradigm should emphasize the integration of

conceptual breadth and depth, with expansive research capacity, to then develop research that has translational capacity in the practice arena. There is a broad range of research employed by social work scholars. Given the need to build best and promising practices with the context of this grand challenge, social work PhD level education should continue to enhance approaches to educating students in intervention research, including clinical trial models. Apprenticeship-scholar approaches can provide powerful opportunities for PhD students to develop as scholars and educators. In the context of a grand challenge paradigm, this type of approach incorporates the scholarships of (a) teaching and learning, (b) discovery, (c) application, (d) integration, and (5) dissemination/adooption.

Revisiting our roots: Approaches for social work scholars to transfer research discoveries to real world settings

In order to maximize the impact of the service mission of social work, research and scholarship should be directly transferable to the practice arena. Because there is an inherent gap between scholarship and practice at times, given the divergences between the institution of academia and social service delivery systems, social work scholars have an ethical responsibility to manage this gap. Emphasizing approaches that enable an almost seamless hand-off of knowledge developed through effective research to the hands of those in practice, can serve to potentially inform meaningful change. Research aimed at addressing individual and environmental determinants of injustice and suffering only fulfills its mission when it can be applied in practice. The following are suggested approaches that, within the grand challenge paradigm, may serve to make the seamless hand-off more viable.

Scholar-in-residence: Harking to Jane Addams' approach to social work practice, a scholar-in-residence approach would establish strong ties between the research and practice communities. The scholar-in-residence would be located in an immersive way in an on-the-ground practice environment; their defined role in this practice environment would be clearly defined as facilitator of participatory models of research. For social work, discipline-specific standards of scholarship should validate the importance of devoting time and resources to establishing this type of complete community partnership that would enable true participatory approaches to research, which by definition close the dissemination and application gaps. This model enables not only the development and validation of best practices in on the ground service delivery, it also facilitates potential shifts at the policy level. This orientation situates social workers in the academy as knowledge coaches of multiple perspectives for professionals and community stakeholders in a wide range of practice arenas.

Lunch-and-learn: In keeping with the ethos of the scholar-in-residence model, and lunch-and-learn model invites establishment of an ongoing forum that brings together social work scholars, community leaders, and a variety of community stakeholders, and builds strong ties that eliminate the town-and-gown paradigm. The Lunch-and-Learn series can be organized as a series of public training meetings and later televised as public broadcast webinars. The function of these meetings would be for faculty to share lessons learned from planning and implementing grand challenges, as well as to transfer the new knowledge to serve community leaders and citizens and positively enhance their wellbeing. These series can also be "friend-raisers" to broaden the network by expanding the number of like-minded partners for the school of social work's grand challenge dissemination and diffusion efforts. In this forum, community partners can remain participatory and current with practice and policy research

developments. This can broaden their capacities and enable them to serve as knowledge brokers to help shape local policies and social service funding practices of municipal and private funders.

Co-location of service functions: Another approach to closing the transfer of scholarship to community adoption gap is by co-locating the service functions on the university campus as a neighborhood partnership. For example, this could take the form of a community clinic situated on the university campus, which serves as a learning site for a group of developing interprofessional practitioners, staffed with on-site practitioners who supervise students in interventions informed by best and promising practices, with links to ongoing research facilitated and supervised by university faculty. This type of clinic provides a one-stop cross-disciplinary learning structure and interprofessional, community-based, service system. This type of clinic provides a community laboratory for the clinical education and training of graduate students, and a platform for the scholars to develop and test education and practice models. It also provides a forum for the discovery, application, integration, and transfer of research discoveries model of doctoral education. Such a clinic would be eligible for grant making through public and private funders of services as well as foundations, corporations, and municipalities that fund evaluation and research.

Strengths, challenges, and opportunities associated with implementing a grand challenge paradigm in the social work academy

Implementing a grand challenge paradigm within the context of social work is in and of itself a grand challenge. This can be understood as a function of both the strengths and limitations associated with the current related states of social work education, scholarship, and practice. The very tenets of social work suggest that we remain critically conscious in an effort to continue to function as viable responders to society's injustices, and to continue to contribute to improved well-being. Given this, it is important to recognize that the grand challenge paradigm, like any other, is informed by underlying assumptions that in and of themselves require critical examination. In fact, among the authors themselves, there are epistemological differences that make for interesting discussion around some of the key ideas presented here. However, the authors do agree that the state of behavioral health and health disparity among youth and their families, combined with the state of workforce under-capacity, inform a dire enough circumstance that requires a large-scale, comprehensive approach. The grand challenges paradigm makes space for all of the moving parts to come together. In addition to summarizing the strengths of the approach, this section of the paper highlights a number of challenges associated with the grand challenge paradigm in hopes that this will inform an ongoing dialogue about the opportunities these challenges create. It is in that space that innovative strategies to address these challenges, will emerge.

Strengths

Support for a grand challenges paradigm is embodied in the National Association of Social Workers Code of Ethics [35], and in the profession's service mission.

Social workers primary responsibility is to promote the well-being of clients (section 1.01)...Social workers should critically examine and keep current with emerging knowledge relevant to social work and fully use evaluation and research evidence in their professional practice

(section 5.02: Evaluation and Research)...Social workers should contribute to the knowledge base of social work and share with colleagues their knowledge related to practice, research, and ethics. Social workers should seek to contribute to the profession's literature and to share their knowledge at professional meetings and conferences. (section 5.01).

Similar to the benefits of evidence informed practice in social work [36], grand challenges are useful in assisting social workers in complying with ethical obligations [36,37]. They aid social workers in: 1) informing critical thinking to help clients while avoiding harm, 2) monitoring the target outcomes of social work practice [36], enhancing professional development, and, they are guided by the use of the best available evidence to address approaches to problem solving [36,37]. In addition, a grand challenge paradigm creates a framework to enable integration of multiple key social work systems including social work education, social work research, and the environment of applied social work practice. Built into this opportunity to integrate is a corollary opportunity to bridge some longstanding identified gaps between theory and practice, and research and practice. Along with these strengths, and those explicated throughout this paper, there are a number of challenges associated with employing the grand challenges paradigm in social work.

Challenges

First, not all schools of social work will have capacity to effectively launch a workforce education and training grand challenge with a particular focus on children's behavioral health. Very simply, there might be a shortage of faculty with interest in children's mental health intervention research, or with funded research, and/or the advanced statistical training necessary to effectively engage in the type of intervention research discussed in this paper, or the capacity to develop the necessary community partnerships to manifest the link between education, scholarship, and practice.

Second, not all social work educators would be interested in redefining their roles as educator and/or scholar to meet with the specifications of a grand challenge paradigm. Some faculty's work is not aligned with the community engaged model that is essential for a grand challenge approach to problem resolution. Given that social work rests firmly on the idea of multiple perspectives, it is reasonable to expect that there are social work educators and scholars whose epistemological orientations are not consistent with the epistemology that undergirds the grand challenge paradigm. This might manifest in the form of opposition to the shifting culture of higher education and the increasing pressure to generate funding to support research and to increase the rate of scholarly productivity. It might also manifest in a perspective that does not think an evidence informed framework fits to the culture of social work.

Third, and perhaps a more encompassing challenge is related to the fact that schools of social work and social work programs exist in a wide range of institutional contexts, many of which are not research intensive university settings. This suggests enormous variability in infrastructure and support, as well as opportunity to collaborate across disciplines. The grand challenge paradigm described in this paper might be best suited to schools of social work at highly-resourced, research intensive universities, with opportunities for grantspersonship training. And, not all large and mid-size schools of social work, even those in research intensive university settings, have in place the institutional, infrastructural, and interpersonal determinants of

enhanced research cultures Briggs et al. [31]. In order to effectively manifest the grand challenge paradigm proposed here, it will be essential for social work scholars to be best positioned to garner large-scale grant funding such as that made available through the National Institutes of Health and Mental Health. There is currently a small, but growing handful of social work scholars who have successfully competed with those in the physical and natural sciences to garner this type of funding support. Research related to the achievements of the top scholars in the top 25 schools of social work has recently been appearing in the literature [38-41]. These identified scholars, have an opportunity in the spirit of our collaborative discipline, to provide coaching and mentorship to assist other social work scholars in the pursuit of the types of funding streams that can support the type of grand challenge paradigm discussed here.

Fifth, successful implementation of grand challenges requires the alignment of the agendas of the academic and service arenas that comprise the profession of social work. The agendas and orientations of social work practitioners and social work researchers are not always congruent. Lundy, Massat, Smith, and Bhasin [42] articulated the glaring distinctions that exist between the research and practice functions in social work. The former investigates behavior change while the latter facilitates it. Related to this, is the idea that some social workers find the empirical knowledge base “insufficient for guiding practice” [42]. Although prescribed in the NASW Code of Ethics, not all social workers keep up with knowledge developments by reading the professional literature and incorporating practice developments, advancements, and innovations in their professional practice following graduation from schools of social work. And, there is an ongoing need for increased emphasis on developing social work researchers with the capacity to engage in the types of intervention research that can actually establish a body of research to more adequately support a culture of best practices.

There is a long history in social work related to an encamped argument pitting the merits of intuition against the merits of evidence. Neither extreme position necessarily fits best to the culture of social work. Instead a balanced approach that does not prioritize evidence above and beyond the other aspects of thought that can inform practice, or prioritize intuition [42,43] at the expense of critical thinking [33]. Social workers have always made use of multiple sources of knowledge, from multiple disciplines to inform education, research and practice. The grand challenges model makes space for this, but not for an approach that entirely eschews the utility of evidence informed approaches.

The fact that the grand challenges paradigm presents a number of meaningful challenges should not discourage its use. Instead, the challenges identified highlight the complexity of not only the social issues social workers seek to address, but the institutional contexts within which they do the work of attempting to address them. The grand challenges paradigm presented here provides a host of opportunities to work to systematically chip away at the profound issues and disparities associated with the state of mental health of children, youth and their families, but also opportunities to critically examine the integrated systems employed to address them. In examining these systems, while also attempting to address a dire social need, social work has the opportunity to fill in gaps and build more solid interprofessional structures upon which to work toward improving well-being for individuals and society.

References

1. Osius E, Rosenthal J (2009) National Research Council Institute of Medicine's Adolescent health services: Highlights and considerations for state health policymakers. National Academy for State Health Policy.
2. McCabe MA, Wertlieb D, Saywith K (2013) Promoting children's mental health: The importance of collaboration and public understanding (pp. 19-34), in McDonald A (Edn.), *Child and Family Advocacy: Bridging the Gaps Between Research, Practice, and Policy*, Issues in Clinical Psychology. New York: Springer.
3. University System of Georgia Board of Regents (UBOR) (2010) Center for Health Workforce Planning and Analysis. Research Notes. The workforce as a contributor to the problems in Georgia's behavioral health systems. Retrieved from http://www.usg.edu/health_workforce_center/documents/BH_Workforce_Research_Br_FINAL.pdf
4. Cooper JL, Aratani Y, Knitzer J, Douglas-Hall A, Masi R, et al. (2008) Unclaimed children revisited: The status of children's mental health policy in the United States. Retrieved from http://nccp.org/publications/pdf/text_853.pdf
5. Knitzer J, Cooper J (2006) Beyond integration: Challenges for children's mental health. *Health Affairs* 25: 670-679.
6. Overstreet KM, Moore DE, Kristofco RE, Like RC (2007) Addressing disparities in diagnosing and treating depression: A promising role for continuing medical education. *Journal of Continuing Education in the Health Professions* 27: 56-58.
7. Maternal and Child Health Bureau of the Health Resources and Services Administration (MCHB) (2007) The National Survey of Children's Health. Retrieved from <http://www.childhealthdata.org/browse/snapshots/nsch-profiles/mental-health?geo=12>
8. White CR, Gallegos AH, O'Brien K, Weisberg S, Pecora PJ, et al. (2011) The relationship between homelessness and mental health among alumni of foster care: Results from the Casey Young Adult Survey. *Journal of Public Child Welfare* 5: 369-389.
9. Teplin LA, Abram KM, McClelland GM, Dulcan MK, Mericle AA (2002) Psychiatric disorders in youth in juvenile detention. *Arch Gen Psychiatry* 59: 1133-1143.
10. Sheppard VB, Benjamin-Coleman R (2001) Determinants of service placements for youth with serious emotional and behavioral disturbances. *Community Ment Health J* 37: 53-65.
11. Delbello MP, Lopez-Larson MP, Soutullo CA, Strakowski SM (2001) Effects of race on psychiatric diagnosis of hospitalized adolescents: a retrospective chart review. *J Child Adolesc Psychopharmacol* 11: 95-103.
12. Garb HN (1997) Race bias, social class bias, and gender bias in clinical judgment. *Clinical Psychology: Science and Practice* 4: 99-120.
13. McLaughlin KA, Costello EJ, Leblanc W, Sampson NA, Kessler RC (2012) Socioeconomic status and adolescent mental disorders. *Am J Public Health* 102: 1742-1750.
14. Thomas JF, Temple JR, Perez N, Rupp R (2011) Ethnic and gender disparities in needed adolescent mental health care. *J Health Care Poor Underserved* 22: 101-110.
15. Breland-Noble AM (2004) Mental Healthcare Disparities Disparities Affect Treatment of Black Adolescents. *Psychiatr Ann* 34: 534-538.
16. Munson MR, Floersch JE, Townsend L (2009) Attitudes Toward Mental Health Services and Illness Perceptions Among Adolescents with Mood Disorders. *Child Adolesc Social Work J* 26: 447-466.
17. Alexandre PK, Younis MZ, Martins SS, Richard P (2010) Disparities in adequate mental health care for post-year major depressive episodes among white and non-white youth. *J Health Care Finance* 36: 57-72.
18. Snowden LR, Masland MC, Fawley K, Wallace N (2009) Ethnic Differences in Children's Entry into Public Mental Health Care via Emergency Mental Health Services. *J Child Fam Stud* 18: 512-519.
19. National Alliance on Mental Illness of Greater Chicago (NAMI) (2013) *Mental health 2013: An Important public health issue*. Chicago, IL: Author.
20. APS Healthcare (2006) Georgia mental health gap analysis. Retrieved from <http://www.apsero.com/webx/.ee7bd8d>

21. Carter Center Mental Health Program (2011) Building a vision for community services for children, adolescents, and adults with behavioral health disorders in Georgia, Atlanta. GA: Author.
22. Thyer BA (2004) Science and evidence based practice. In HE Briggs, TL Rzepnicki (edn), *Using evidence in social work practice: Behavioral perspectives* Chicago: Lyceum Books Inc pp: 74-87.
23. Reid W (2004) The contribution of operant theory to social work practice and research. In HE Briggs, TL Rzepnicki (edn), *Using evidence in social work practice: Behavioral perspectives*. Chicago: Lyceum Books Inc.
24. Flexner A (1915) "Is Social Work A Profession?" National Conference on Charities and Corrections Proceedings, Chicago: Hildman pp: 579-590.
25. Claghorn KH (1927) The problem of measuring social treatment. *Social Service Review* 2: 181.
26. Mickan S, Hoffman SJ, Nasmith L; World Health Organizations Study Group on Interprofessional Education and Collaborative Practice (2010) Collaborative practice in a global health context: Common themes from developed and developing countries. *J Interprof Care* 24: 492.
27. Institute of Medicine (2003) *Health professions education: A bridge to quality*. Washington, DC: National Academy Press.
28. American Public Health Association (2009) Policy statement on promoting interprofessional education. Retrieved from <http://www.apha.org/advocacy/policy/policysearch/default.htm?id=1374>.
29. Council on Social Work Education (2012) Setting priorities, serving the nation: A shared agenda for social work education. Retrieved from <http://www.cswe.org/File.aspx?id=63558>
30. Boyer E (1990) *Scholarship reconsidered: Priorities of the professoriate*. San Francisco, CA: Jossey-Bass.
31. Briggs HE, Sharkey C, Briggs AC (2015) The Contributions of Applied Behavior Analysis and Behavior Theory to Innovative Research and Practice Cultures in Social Work. *Journal of Evidence-Informed Social Work*. <http://dx.doi.org/10.1080/23761407.2015.1086710>
32. Kalil T (2012) The Grand Challenge of the 21 Century: Prepared Remarks of Tom Kalil at the Information Technology and Innovation Foundation. Washington, DC. April 12, 2012.
33. Marsh JC (2004) Theory-driven versus theory-free research in empirical social work practice. In HE Briggs, TL Rzepnicki's, *Using evidence in social work practice* Chicago: Lyceum Books Inc pp: 20-35.
34. McCroy RG, Flanzer JB, Zlotnik JL (2012) *Building research culture and infrastructure*. New York: Oxford University Press.
35. National Association of Social Workers (2008) *Code of ethics of the National Association of Social Workers*. Washington DC: NASW Press.
36. Rzepnicki TL, Briggs HE (2004) *Using evidence in social work practice: Behavioral perspectives*. Chicago: Lyceum Books Inc.
37. Gambrell E (2004) Contributions of critical thinking and evidence-based practice to the fulfillment of the ethical obligations of professionals. In H. E. Briggs, T. L. Rzepnicki (Eds.), *Using evidence in social work practice: Behavioral perspectives* (pp. 3-19). Chicago, IL, US: Lyceum Books.
38. Holosko MJ, Barner J, Allen JL (2015) Citation impact of women in social work: Exploring gender and research culture. *Research on Social Work Practice*.
39. Barner JR, Holosko MJ, Thyer BA (2014) American social work and psychology faculty members' scholarly productivity: A controlled comparison of citation impact using the h-index. *Br J Soc Work* 44: 2448-2458.
40. Barner JR, Holosko MJ, Thyer BA, King S (2015) Research productivity in top-ranked schools in psychology and social work: Does having a research culture matter?. *Journal of Social Work Education* 51: 5-18. doi: 10.1080/10437797.2015.977123
41. Huggins-Hoyt KY, Holosko MJ, Briggs HE, Barner JR (2014) Citation Impact Scores of Top African American Scholars in Social Work: The Story Behind The Data. *Research on Social Work Practice*.
42. Lundy M, Massat CH, Smith J, Bhasin S (1996) Constructing the research enterprise: Building research bridges between private agencies, public agencies and universities. *The Journal of Applied Social Sciences* 20: 169-176.
43. Gerdes KE, Edmonds RM, Haslam DR, McCartney TL (1996) Clinical Social work use of practice evaluation procedures. *Research on Social Work Practice* 6: 27-39.