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Training Opportunities for Challenge-Focused Career Development

In Clinical Psychology

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*Ultimately, all procedures in clinical science come with an expiration date. Whether it is therapeutic practices, assessment techniques, research questions, research measures, or data analytic approaches, all have their moment on center stage and then the spotlight moves elsewhere. If this observation is correct, then we do our students a great disservice by training them primarily to be proceduralists, regardless of whether that involves training them to administer a particular set of empirically supported treatments or to apply a particular set of*

*research methods to a particular set of research questions. In both clinical practice and research, our students are best served if we prepare them to identify problems, synthesize available knowledge, develop solutions, test those solutions, and inspire others to use and advance what they have learned. This is certainly not to say that training should be content or procedure free but, rather, that learning content and mastering procedures should not be the primary goals of doctoral-level clinical science training*. (Levenson, 2014, p. 37)

 The future of clinical psychology as an integration of science and practice has never been brighter, or more vital. The target article by Berenbaum and colleagues (Berenbaum, Washburn, Sbarra, Reardon, Schuler, Teachman et al., in press) offers a unique opportunity to explore new pathways for clinical psychology training from a future-oriented perspective. The authors make a strong care that our field needs to organize the entire sequence of training in clinical psychology around *addressing public health challenges* (cf. Shoham, Rohrbaugh, Onken, Cuthbert, Beveridge, & Fowles, 2014)*.* The article’s two-stage training proposal deserves full consideration and, ideally, freedom for motivated doctoral programs to break new ground without unreasonable administrative or regulatory constraints. I applaud the authors’ vision, their scholarly approach to the challenge of rethinking how our disciplines trains new generations of psychologists, and their willingness to challenge existing assumptions and conventional thinking.

 In this commentary, I would like to suggest an addition – a friendly amendment, as it were – to their thought-provoking proposal. As we revise and expand our training models to equip our students for a broader range of activities, we have the opportunity to provide training for what I will call a *challenge-focused career trajectory*: a career that prospectively targets the creation, implementation, and management of a comprehensive research-to-practice-to-policy agenda *addressing a specific public health challenge*. As we explore Berenbaum and colleagues’ recommendations about greater flexibility and range of career opportunities for our students, let’s also consider how we might enable students to develop careers in which they lead comprehensive, multi-stage, multidisciplinary initiatives that span the range of psychological knowledge generation and implementation. This type of leadership role is one that clinical psychology may be ideally suited to take on. Levenson’s observation (2014) that our students are best served by training that familiarizes them with the entire spectrum of activities needed to address public health issues – what he calls problem-focused training – is an excellent basis for elaborating a problem-focused career pathway.

 *Stage models as templates for doctoral training in clinical psychology*. What does it take to respond effectively, at a population level, to treating and preventing mental disorders such as depression, schizophrenia, or anorexia? No one investigator, research group, or even NIH institute can make this kind of change happen – and yet, there is a role for *leadership* that builds on a foundation of comprehensive training in psychological clinical science (Riley, 2017). Recent years have seen the emergence of intervention development models both from within and outside the behavioral sciences that provide a glimpse of the scope of this challenge and offer a structure adaptable to career considerations. Onken, Carroll, Shoham, Cuthbert, and Riddle (2014) presented a vision for intervention development within clinical science grounded in the NIH Stage Model, incorporating a basic science emphasis on mechanisms of action into every stage of intervention research. The model presents a comprehensive cycle of stages for behavioral intervention development, from basic/exploratory science to efficacy studies to effectiveness studies to implementation and dissemination. The NIH Stage Model’s explicit focus on conceptual models and mediators of vulnerability is consistent with experimental therapeutics, personalized medicine, and – for our purposes – helping to guide clinical science training in psychology. Similarly, the ORBIT model (Czajkowski, Powell, Adler, Naar-King, Reynolds, Hunter, et al., 2015) provides a framework that anticipates the steps or stages in research that will be required to move a basic science finding potentially relevant to a public health challenge from discovery to implementation. These models offer useful heuristics for designing a set of training experiences in the Focused Competency Phase of the Berenbaum et al. framework. In turn, those targeted training experiences can provide a springboard for professional roles as leaders in the systematic pursuit of solutions to pressing mental health challenges from a public health perspective.

 *What tasks must be accomplished to address a mental health challenge?* What do stage models of behavioral intervention development suggest about components for future-oriented doctoral training in clinical psychology? Consider the scientific and policy tasks that must be completed in order to reduce the burden of a particular mental disorder. According to Fort, Herr, Shaw, Gutzman, and Starren (2017), those tasks include discovery (e.g., identification of a phenotype, cause, or mechanism) plus four types of translation: T1 (bringing ideas from discovery to early intervention trials), T2 (establishment of effectiveness and clinical guidelines), T3 (implementation and dissemination), and T4 (population-level research and policy). While guidelines such as this are valuable frames of reference, they sometimes overlook, or at best only imply, the critical role for leadership across stages of research and across relevant basic-science and clinical-science disciplines. Research communities in psychology and related fields are typically informal and operate as much by individual effort and collective sharing of findings as by any top-down direction. However, in order to meet the growing burden of mental disorders worldwide, greater efficiencies across all stages of intervention development will be needed. One such efficiency would be training a new generation of clinical psychologists for leading the evaluation of a model, the exploration of a phenotype, the development and testing of an intervention, the broad dissemination of an effective program, etc. within a team-based, multidisciplinary framework that likely stretches across institutions and even countries.

 *Initial thoughts on training possibilities*. What would training for this kind of challenge-focused leadership role entail? Most likely there is no single set of experiences or unitary pathway to attain such a career. The history of clinical psychology suggests that leaders emerge over time, often from initial experience with a specific research paradigm or intervention that is relevant to a larger mental health challenge. These individuals come to take on informal or formal, broad leadership roles as a research literature grows and gains momentum. They evolve into pursuing professional activities that go well beyond traditional doctoral training in clinical psychology (advocacy, policy, organization, etc.). The value of elaborating this specific career trajectory is to intentionally and efficiently prepare motivated students for challenge-focused leadership. The Foundational Knowledge and Competency Phase would ensure that students choosing this path had the knowledge and skill set that represents the best of psychological clinical science (Klepac, Ronan, Andrasik, Arnold, Belar, Berry, et al., 2012). In turn, the Focused Competency Phase would have sufficient flexibility to allow for both general and challenge-specific learning experiences.

 What might some of those challenge-focused training ingredients be? In general, they should include formal training in team science, exposure to public health and public policy, emphasis on grant writing skills, training in advocacy, and interactions with policy makers and stakeholders. From a challenge-specific perspective, the range of possibilities is broad and exciting. Is the student targeting a disorder? A maladaptive behavior? A genotype or phenotype? A theory of etiology or hypothesized pathway to a disorder? A new or existing diagnostic instrument or intervention? Or perhaps even the development and refinement of a new training model? The opportunity to be forward-looking and intentional during this phase of doctoral training is one of the most significant strengths of the Berenbaum et al. model. The goal is to enable and support the student to plan for taking on a leadership role while they are still able to easily obtain training experiences and mentorship.

 *Criteria for evaluation: feasibility, acceptability, efficacy, effectiveness*. How would we determine whether this specific leadership training idea, or the Berenbaum et al. training proposal more broadly, was successful? We can again rely on the intervention development stage models to guide the evaluation process. First, feasibility: it will be important to determine whether individual doctoral programs, or coalitions of programs, can provide the resources and training experiences that would allow students to explore what such a career pathway would be like. Second, acceptability: do students find this particular perspective on clinical science career development attractive? Will there be mentors (within and outside program faculty) committed to the model and willing to make training opportunities available? Third, efficacy: will these students find positions, inside or outside academia, that allow them to grow into a meaningful leadership role? Finally, effectiveness: does the creation of an explicit clinical leadership career path move the needle on the public health challenges that students are targeting? There are certainly other evaluative criteria and strategic considerations (e.g., cost), but they may not be radically different from the criteria that will be used to evaluate the larger Berenbaum et al. training model itself.

 *Final thoughts*. One might imagine the objection that this proposal is too psychology-centric. Aren’t other disciplines (public health, epidemiology, psychiatry, etc.) also positioned to train leaders who will dedicate their careers to specific mental health challenges? Yes, but no claims are being made that only clinical psychology can provide such training. In particular, the two stages of the Berenbaum et al. model are ideally suited to laying the foundation for leadership, team science, and systematic pursuit of answers to basic-science and applied-science questions. As a psychologist committed to the clinical science training model, I believe that our field has the responsibility, not just the opportunity, to create this kind of training. Might this be too demanding or ambitious an agenda for doctoral training? Don’t the leaders who emerge to take on important public health challenges do so over long periods of time? Is it reasonable to believe that we could shorten that time span with focused predoctoral training? At the least, this opportunity deserves further scrutiny. It will be enlightening to see if students respond positively to such an intentionally long-range career path, and whether as a field we can succeed in developing challenge-focused leaders in subsequent generations of clinical psychologists.

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