



# SUPPORTING CLINICIAN SCIENTIST TRAINING IN CHILD AND YOUTH MENTAL HEALTH - A CALL TO ACTION

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# Outline

- Review present state of clinician-scientist training in general and in Child & Youth Psychiatry (CYP) in particular
  - C-S CYP is a key ingredient of our work force
  - Key ingredients of current C-S training programs
  - Persistent challenges to training
- Conclusion; *we know how to train clinician scientists in our field, but we put up too many barriers to training and to successful transitions to meet the needs of trainees. This puts at risk the mental health of future generations of children and youth*
- Propose that AADCAP develop an action plan with KPIs to address this issue

# Terminology; Child and Youth Psychiatry, Clinician-Scientist, Training

- “**Youth**’ encompasses “adolescent’ and transition aged youth (TAY, up to 24 years of age), this is our demographic
- Equivalent terms; **Clinician-scientist**, physician-scientist, clinician-investigator; Clinical Academic (refers to physicians who engage in both clinical practice and in research >50% of time)
- CY Clinician scientist is a physician whose career path includes the creation and dissemination of new knowledge about developmental psychopathology
- **Training** covers the period from medical school to training in the ‘specialty’ to the first five years post-specialty (Early Career Researcher, ECR); ends once the physician is an ‘independent’ investigator

# The Important Role Played by Clinician Scientists in Child and Youth Psychiatry

- Clinician scientists are well-placed to identify important research questions, to generate evidence to answer those questions and so to improve mental health outcomes via knowledge creation and dissemination
- A clear focus on impact and relevance; what are the important clinical questions that will impact health outcomes for children and youth in the near future?
- Clinician scientists know what families and kids are struggling with and know what needs to be done

# Clinician Scientist Human Resources

- The number of physician scientists in the US has declined 22% in 20 years, from 1983 to 2003, only make up 2% of all physicians versus a peak of 5% in 1985 (Ley & Rosenberg, 2005).
- In 2012, physician-scientists comprised 1.5 percent of the total physician workforce. Of particular concern is the aging of the workforce and persistent patterns of unequal participation by women and racial/ethnic minorities (NIH 2014).
- No data on variation by specialty/sub-specialty
- N=roughly 8000 CAPs in AACAP, 20% increase in the US btw 2007-2016 (McBain et al Pediatrics 2019), only 35 hold NIH grants as PIs

# What is the Current State in CYP in UK and Canada?

- UK; “The total number of psychiatrists working in CAMHS fell from 1,015 full-time equivalent posts in May 2013 to 948 in May this year”.(Guardian, Sept 24<sup>th</sup> 2017). Impact on clinician-scientists?
- In Canada, 17 Faculties of Medicine with training programs in CY psychiatry, all have access to Clinician Scientist training programs and MD/PhD programs
- Only two sites have consistently trained CY psychiatrists in research (both in the same province); currently 1/63 residents in CYP training programs are engaged in research training
- **At U of T Dept of Psychiatry, we start with roughly 10% of general psych residents enrolled in the research training program, by the end roughly half drop out.**

# Clinician Scientists in CY Psychiatry; What are the Numbers ?

- Seems to be a consensus that we lack a critical mass of clinician scientists in our field
- Is it true? Not aware of any systematic tracking of research trainees and ECRs in our field
  - What is the proportion of trainees/early career CYPs who are in a research trajectory? What is the ideal proportion?
- Why are there so few? Is it because we do not know how to combine clinical and research training? Is there a lack of interest among trainees?
- **Or, is there a lack of institutional support for the recruitment, training and nurturing of CY clinician-scientists so that it looks like an attractive career option**

# Common Elements of Research Training Programs

- In the 1980's, formal clinician scientist training programs were initiated in medicine in response to several influential editorials and commentaries
- These Clinician Investigator Programs consist of 2 years during post-graduate specialty training
- Many similar core components and structure
  - Clinical and research training synergy
  - Protected time for research during clinical training
  - Enrollment in a graduate program (often completed post-clinical training)
  - Importance of mentor-mentee relationship

# A Scoping Review of Clinician Scientist Training Programs

- Question; how successful have these training programs been?
- Review of outcomes of research training programs for physicians (Kosik et al Evaluation & the Health Professions; 2016, Vol. 39, 3-20)
- On the whole (medicine and surgery) clinician scientist trainees have been very successful in terms of papers published, grants received, obtaining academic posts compared to peers in clinical training programs or peers in academic posts without structured research training
- Also true for training programs in adult/general psychiatry
- **NB Only one paper that describes a program in CYP (Yale Child Study)**  
*Calhoun et al. Child Adolesc Psychiatry Ment Health (2020) 14:21*

# Agreement on Challenges to Successful Training

- Not enough protected time during clinical training
- Bridge may not exist to an appealing faculty position
- Chances of obtaining grant funding are becoming more competitive
- Finishing graduate degree often requires extra year or two of training
- Leads to debt accumulation
- These challenges lead to drop-out of trainees; the 'leaky pipeline' especially among women
- A significant dearth of trainees from racialized or marginalized groups
- Conclusion; We do not 'nurture' clinician scientists during their training

**This is an ethical choice we have made; we privilege clinical training over research training**

# Never been a greater need, never been more opportunities for research innovation

- Recognition of policy makers of the importance of child health to the global burden of disease and to the economy
- Our evidence based treatments are only moderately successful in improving short and long term outcomes
- Sheer number of scientists in CY mental health world-wide; greater opportunities to collaborate
- Expansion of what is considered acceptable scholarship; implementation science, systematic reviews, health services research, qualitative methodologies
- A greater focus of funding bodies on applied health research and co-design with those with lived experience, on EDI in mental health
- More avenues for dissemination; more journals, social media etc
- Have discovered technology to facilitate training and collaborative research



# A Proposed Seven Point Action Plan for AADCAP

- Build on recommendations of Revet et al
- Call for AADCAP to write a policy paper on training clinician scientists in CYP
- Do a survey of current trainees nationally, set benchmarks for the ideal number, develop a human resources plan (“if you don’t measure it, it does not exist”)
- Encourage research into the leaky pipeline; why do trainees drop out? Monitor outcomes and return on investment
- Consider short-track clinical training options
- Make a concerted effort to engage trainees from racialized and marginalized groups to take up a career in research
- Build upon existing, and develop new, peer networks of early career clinician scientists and mentors across training programs facilitated via technology

# Concluding (personal) remarks

- **The current state is a crisis.** It's a crisis of our making. It's a question of what do we value; the mental health of children today or the children of the future who we will **not** be helped by the implementation of innovative evidence based treatments?
- **Its an ethical choice to reset the balance;** we must value to a greater extent the mental health of future generations of children and youth.
- We must address our ethical failure as a field to improve upon meagre treatment effectiveness and lack of significant advancement/innovation in last 40 years.
- As a profession and as leaders we have become oddly passive in the face of this crisis. No organization is taking responsibility for this failure. Why?
- And one of the most important ways to reset the balance is to support and nurture the next generation of CY clinician investigators globally

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