EXPANDING OUR SCOPE OF COMPETENCE: WHAT WE CAN LEARN FROM OTHER FIELDS

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Learning Objectives

1. At the conclusion of this presentation, participants will be able to state 2 definitions of competence from fields outside of ABA.

2. At the conclusion of the presentation, participants will be able to state 2 non-technical skill repertoires that are components of competent practice.

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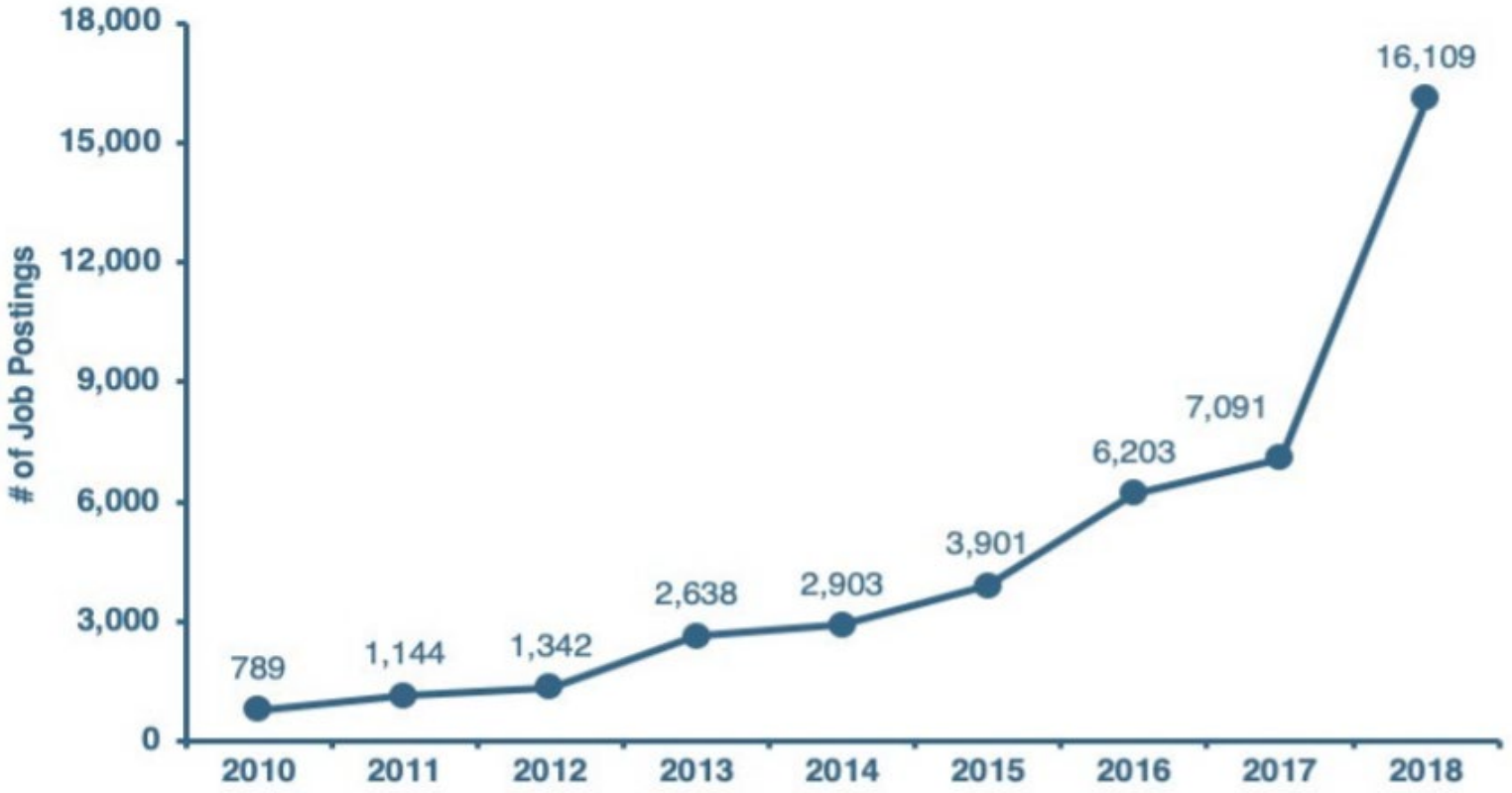
Demand for BCBAs



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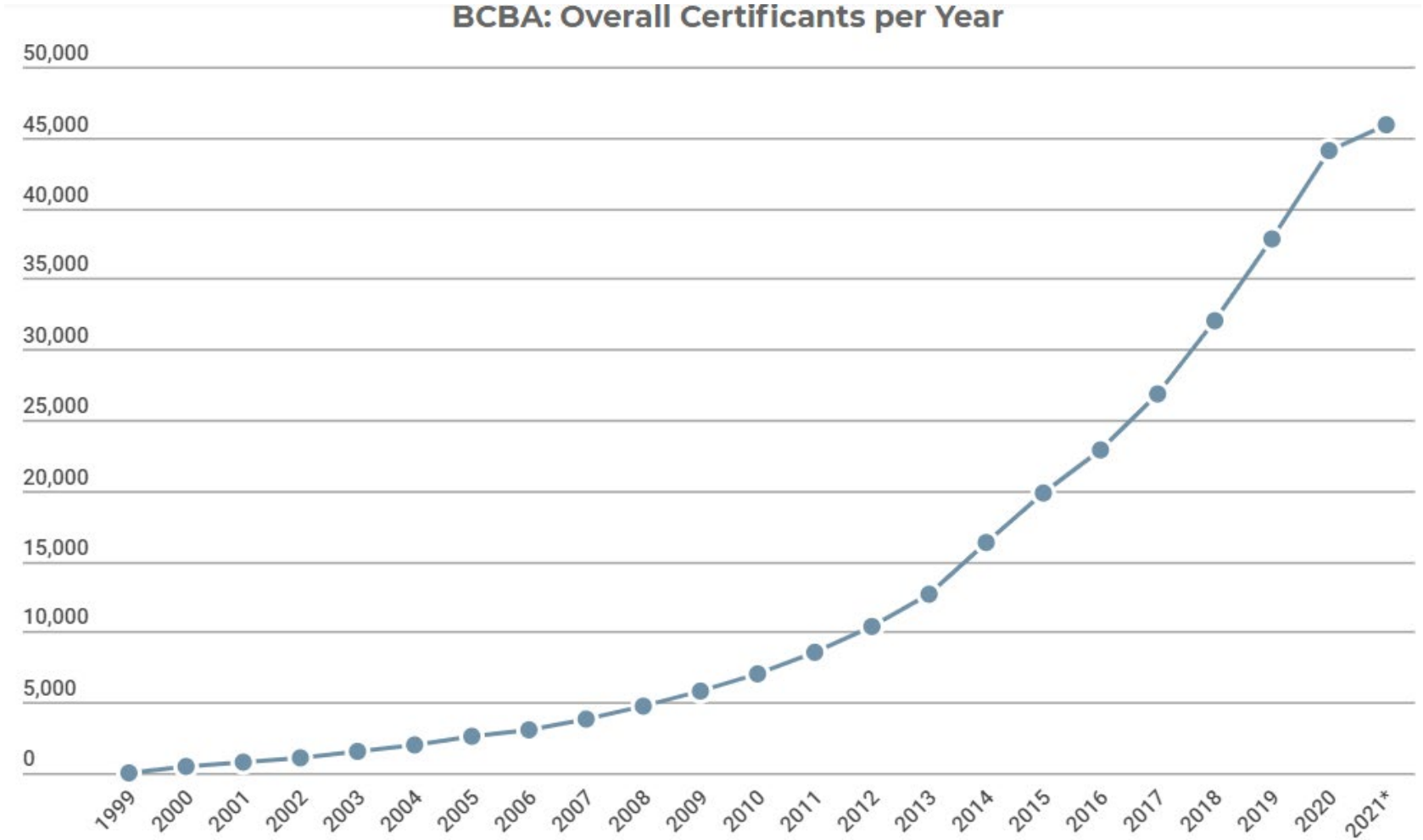
The Impact of Rapid Growth



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Outline

- Review the definition of scope of competence
- Review the ethical obligations to ensure competence
- Review the BACB's guidance for training new BCBAs
- Review training and supervision practices in medicine and clinical psychology
- Recommendations to improve training and supervision of BCBAs

Definition of Competence in ABA

- Brodhead et al. (2018) defined competence as, “the range of professional activities of the individual practitioner that are performed at a level that is deemed proficient. Though a BCBA’s scope of practice is described by the BACB or a licensing agency, his or her scope of competence is determined by each BCBA’s unique experiences and training as a professional.”

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Ethical Requirements to Perform Competently

- The upcoming Ethical Code for Behavior Analysts (2022) has as a core principle that we should ensure our competence and it recommends the following practices to achieve competence. They include:
  - Remaining current and increasing our knowledge of best practices and advances in ABA
  - Participating in professional development activities
  - Remaining knowledgeable and current about interventions that may pose a risk of harm to clients
  - Working to increase our knowledge and skills around culturally responsive practice and service delivery to diverse groups

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Ethical Requirements to Perform Competently

- In the Professional and Ethical Code for Behavior Analysts (2016), ethical codes that relate to competence include:
  - 1.02 Boundaries of Competence
    - Service delivery, teaching and research should be in areas that we have had appropriate education, training, and supervised experience
    - Before practicing in new areas appropriate study, training, supervision or consultation should be sought from those competent in the new area
  - 1.03 Maintaining Competence through Professional Development
    - Accomplished by reading the literature, attending conferences, additional coursework and obtaining or maintaining appropriate professional credentials

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Supervising Students in Graduate Programs

- The practicum and intensive practicum options as supervised experience options for students applying for certification are being eliminated, beginning in 2022. Many university training programs do not provide practicum coursework.
- This leaves the task of developing an appropriate fieldwork experience solely on the individual supervising BCBA.
- Supervising BCBAs are required to have one year as a practicing BCBA experience to be a supervisor.
- This may result in poorly planned and inconsistent fieldwork experiences provided by relatively inexperienced BCBAs.

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Domains of Competence (Brodhead, et al., 2018)

- Competence can be conceptualized as falling into 3 domains:
  - Procedures and strategies- e.g. designing interventions, conducting a FBA
  - Populations- e.g. ASD, ID, traumatic brain injury
  - Settings- e.g. clinic, school, home-based services, business

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Guidance for Supervisors

- The Supervision Training Curriculum 2.0 identifies what students should be taught during fieldwork:
  - Conceptual skills
  - Problem-solving skills
  - Decision-making skills
  - Self-Advocacy
  - Professional behaviors

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Supervision Training Curriculum 2.0

- Evaluating Progress
  - Knowledge-based evaluations
  - Performance-based evaluations
- Evaluating the Effectiveness of Supervision
  - Observations
  - Interviews
  - Set pre-determined mastery criteria for the skills assessed
    - Measure procedural fidelity
    - Assess application and generalization of skill to new targets, clients and settings.
  - Interviews and observations to assess client and caregiver satisfaction

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Supervision Training Curriculum 2.0

- Ultimately, supervisors are responsible for the content and methods used during supervision.
- The BACB suggests they include:
  - Setting performance expectations
  - Using behavioral skills training
  - Providing guidance for developing case conceptualization, problem-solving, and decision-making

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Concerns with the Supervised Fieldwork Model

- A trainee's competence is dependent on the coursework in their graduate program. (Brodhead, et al., 2018)
  - May result in limited exposure to some task list items.
- DiGennaro Reed & Henley (2015) found in a survey of BCBAs that the majority of those in supervisory roles did not receive training in how to supervise and of those who did receive training, only 5% felt prepared to supervise others successfully.
- Inconsistencies in learning opportunities as a result of the expertise and interests of individual supervisors
  - It would be optimal if coursework focused on learning concepts and the practicum setting focused on applied and practical skills. (Hartley, et al., 2016)

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Concerns with the Supervised Experience Model

- Colombo, et al. (2021) recently surveyed BCBAs and found:
  - 43% of respondents had been assigned their first severe case without initial or ongoing support.
  - 35% of respondents received training on functional analyses more than 1 time
- These studies suggest that new BCBAs are not adequately prepared for clinical practice when beginning their careers.

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Recommendations for Training New BCBAs

- A Supervised Fieldwork Curriculum should be develop and adopted across the field.
  - Detailed competencies of essential practical skills
  - Include both conceptual knowledge and practical activities such as assessment, program development, and report writing
- Develop minimum standards of performance for mastery
  - Hours or tasks completed
  - Levels of accuracy and independence
- Require exposure to different settings
  - Clinics
  - Schools
  - Home-based services

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Expanding Our Areas of Competence

- In the PECC, the guidelines for expanding competence are in:
  - 1.02 Boundaries of Competence
    - Before practicing in new areas appropriate study, training, supervision or consultation should be sought from those competent in the new area
- Beyond this guidance, specific requirements to achieve competence with a particular population or intervention are lacking.

  The BACB identifies 12 subspecialties. Their website provides a video and fact sheet describing for each of them.
- As with the earlier recommendations in developing the competence of new behavior analysts, the field would benefit from more specific guidance on how behavior analysts can expand competence.

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Learning from Other Fields: Medicine- Initial Training

- Despite the longer program of study (4 years vs. 2 years) , the program of study for the MD degree provides potential directions for enhancing instruction and supervision:
  - Medical school provides foundational instruction in the related sciences (e.g. anatomy, biochemistry, physiology, etc.) during the first 2 years.
    - The 1st step 1 (of 3) of the national board exam is taken after year 2. It is a multi-choice exam.
  - During the 3rd and 4th years, students do rotations in hospitals and clinics affiliated with their schools.
    - The rotations are in various specialties: pediatrics, surgery, psychiatry
    - The goal is to provide a breadth of experience to assist in selecting a specific career path.
  - The 2nd step of the board exam is completed after year 4. It focuses on clinical services. The test includes multiple choice questions and scenarios where you examine and diagnose confederates posing as patients.

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Medicine

- Following medical school, new MDs apply for residencies in the area they wish to specialize.
- The residency is immersive instruction in a teaching hospital for 3 - 7 years, depending on the area of specialization
- The 3rd and final step of the national board exam is completed after the 1st year of residency. It is multiple choice and involves computer simulations.

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Recommendations

- Incorporate clinical experiences into graduate school curricula
- Develop certification for specializations
  - Currently practice guidelines are only established for Autism (CASP, 2020)
- BCBA board exam could be expanded to include simulation-based assessment.
  - Part 1 could test for conceptual knowledge by a multiple choice exam
  - Part 2 could focus on clinical skills including case conceptualization, assessment, treatment planning, and client interaction skills using simulations with confederate actors in addition to a multiple choice exam.
- This would provide a more valid assessment of the full repertoire of skills needed to be a successful BCBA.

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Medicine- Expansion of Competence

- Simulation as a teaching methodology
  - Cook, et al. (2011) conducted a meta-analysis of technology-enhanced simulations. They concluded that simulation training in health professions education is consistently associated with positive outcomes of knowledge, skills, and behaviors as well as patient related outcomes.
  - Klingensmith & Brunt (2010) reported that surgical skills laboratories are used to teach senior medical students technical skills repertoires such as suturing. Instruction involves active practice on simulators, use of manikins and models and surgery on animals. Results found students reported an increase in confidence levels when performing these skills.

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Medicine- Simulations

- For 4th year medical students, Tufts Medical School in Boston uses a simulation center
  - Patient examination rooms with standardized, confederate patients
  - Observation/monitoring rooms
  - Simulation rooms with computerized manikins that depict human physiology are to used portray illnesses.
- Allows for the practice of critical diagnostic skills in realistic simulations.

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Medicine- Expansion of Competence

- Use of Crew Resource Management (CRM)
  - Use of CRM was first used in commercial aviation. Its use resulted in dramatic Improvements in aviation safety.
  - CRM focuses on improving communication, decision-making, teamwork, situational awareness, leadership and performance feedback in fields where errors can have serious consequences such as aviation and nuclear energy.
  - Checklists are a key component and safety process in CRM.
  - CRM has recently expanded into medicine and specifically has been used operating rooms (Low, et al., 2012)
  - CRM has been linked to improvements in teamwork and patient outcomes. (Low, et al., 2012)

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CRM- Use of Checklists in Medicine (Low, et al. 2011)

SAFETY Before patient enters room	BRIEFING/TIME OUT Prior to incision	DEBRIEFING Before attending surgeon leaves room
RN: Confirm attending surgeon: ❑Availability ❑Planned Procedure ❑ Special needs Confirm room readiness: ❑ OR bed ❑Equipment ❑Instruments ❑Implants ❑Supplies Confirm correct patient: ❑ID bracelet and plate match ❑Surgical consent signed and witnessed, matches posted procedure. ❑ Site marked correct Anesthesia team: ❑ Suction working ❑ Airway equipment ❑ Patient allergies ❑ Regional block site confirmed ❑ Blood products ❑ Warming device ❑ Post-op bed plan	❑All staff introduce themselves. ❑Consent read aloud by RN: pt name, procedure, site ❑Verbal confirmation by team Surgeon: ❑Patient history; surgical plan ❑ Operative site marking visible ❑ Patient correctly positioned ❑ Antibiotic request ❑ DVT prevention plan ❑ Specimens and cultures ❑ Relevant images displayed ❑ Fire safety issues RN and surgical tech: ❑ Sterility parameters met ❑ Meds and solutions labeled ❑ Safety strap/tape/pads on pt ❑ Radiation protection on pt Anesthesia team: ❑ Patient allergies ❑ Antibiotic(s) given ❑ NMB given; blocks performed ❑ Blood products	Surgeon: ❑ State procedure(s) performed ❑ Specimens and cultures ❑ Confirms post-op bed plan ❑ Post-op/POE orders written ❑ Pain management plan ❑ Known surgical complications RN and surgical tech: ❑ Confirm counts ❑ Instruments, supplies, equipment issues Anesthesia team: ❑ Antibiotic due before end time ❑ Airway support needs ❑ Concurs post-op bed plan ❑ Concurs post-op analgesia plan ❑ EBL, transfusions and fluids ❑ Blood slips signed & in chart ❑ Known anesthetic complications

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CRM in Medicine

- Used as an antecedent strategy, checklists:
  - Identify important safety behaviors (e.g. checking for the correct patient, ensuring needed materials are available)
  - Identify who is responsible for specific actions
  - Specify communication that is required between team members

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Recommendations

- Develop simulation environments that allow BCBAs to practice new skills in controlled environments.
  - Clay, et al. (2021) has demonstrated that feasibility of behavioral skills training conducted via virtual reality in training behavior therapist level staff to implement FCT.
  - The use of simulation and virtual reality should be investigated as methods of training of BCBAs.
- Use CRM in high risk environments
  - Working with individuals with extreme challenging behavior
  - Conducting functional analyses
  - When working in teams where many staff need to work collaboratively, such as in clinics or special education schools

Clinical Psychology-Initial Training

- Clinical Psychologists' 4 year course of study for their doctorate (Norcross, et al. 2016):
  - Years 1-3: formal coursework and practicum experiences
    - During practicum some universities provide an hour of supervision for every hour of service delivery (Rutgers, 2020)
  - Year 4: a full year internship, primarily involving supervised, direct contact with patients in addition to structured learning opportunities
  - Internships typically involve 3 to 4 rotations in different health care settings (e.g. children, adults).
  - Internship activities include regular supervision, case conferences, faculty lectures and grand rounds.

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Clinical Psychology

- Competence based instruction has become an essential part of training.
- Competence is defined as “an individual’s capability and demonstrated ability to comprehend and perform certain tasks appropriately and effectively and in a fashion that is consistent with the expectations for an individual qualified by education, training and credentialing.” (Norcross, et al., 2016)

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Clinical Psychology

The level of competence expected increases during training:

- Readiness for practicum – basic knowledge
- Readiness for internship- ability to generalize knowledge to clinical practice
- Readiness to enter practice- independent diagnostic skills and the ability to formulate a treatment plan

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Non-technical skill repertoires

- Both medicine and clinical psychology emphasize the importance of non-technical skill repertoires
  - Alken, et al. (2018) noted that surgeons, in addition to technical skills, require communication and team skills including clinical decision making and managing stress.
  - Clinical psychology training involves coursework on clinical interviewing and crisis management.

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Recommendations

<u>Suggestions for ABA</u>

1. Require clinical practica as a part of formal coursework

    -provide exposure to a variety of settings/patients

2. Develop simulation or virtual reality for training and certification
3. Explore the use of Crew Resource Management
4. BCBA Certification exam should require practical components

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