

Perception and Experience of School Based Physical Therapy Services for Students with Autism Spectrum Disorders: A Survey of NJ Education Professionals.

Bala M Pillai PT, DPT/s, MA, PCS¹

Dr Susan Lowe PT, DPT, MS, GCS²

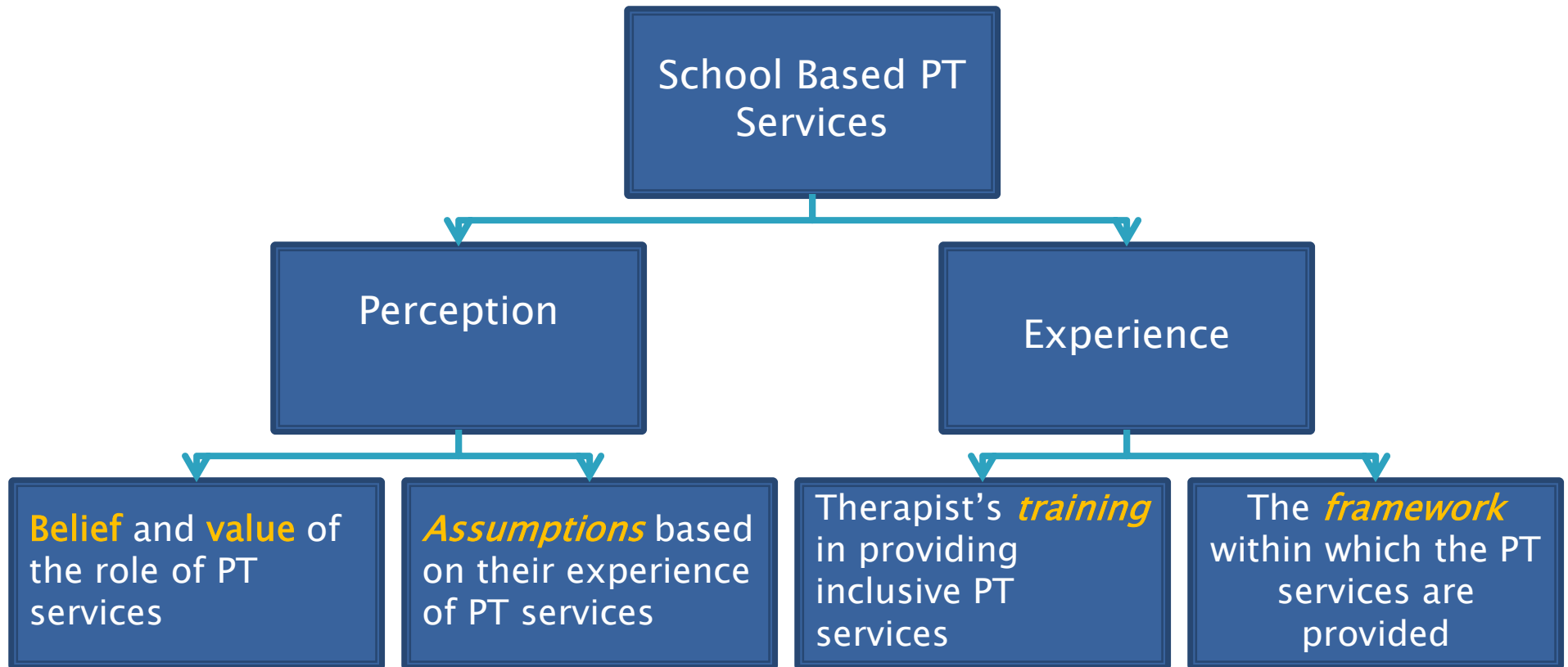
Dr. Mary Ann Wilmarth PT, DPT, MS. OCS, MTC, Cert. MDT³

¹ FUNctional Physical Therapy, Piscataway, NJ

²Director, transitional DPT program, Northeastern University

³Chief of Physical Therapy, Harvard University

Determination of PT Services



Eligibility criteria from federal to local (district) levels

District level

May /may not be aligned to
Idea 2004

New Jersey- Department of
Education. (Code available only for
speech services)

IDEA 2004 –Federal Level

(<http://ideapartnership.org/>)

Purpose of the survey

1. Identify current trends to refer students with ASD for PT.
2. Identify possible supports and barriers in educational professionals experience of the outcomes of PT services.
3. Increase awareness amongst them that therapists are a “resource” to help them with supports and accommodations in modifying their instructional strategies.



Instrumentation

- ▶ Designed online questionnaire using Survey Monkey
- ▶ The survey consisted of 5 sections with a total of 16 questions
 - Identification and referral of students with ASD for PT services
 - Eligibility criteria for receiving school based PT services.
 - Frameworks that were supported in their district
 - Degree of team collaboration across the school year.
 - Identification of professional day in service topics.

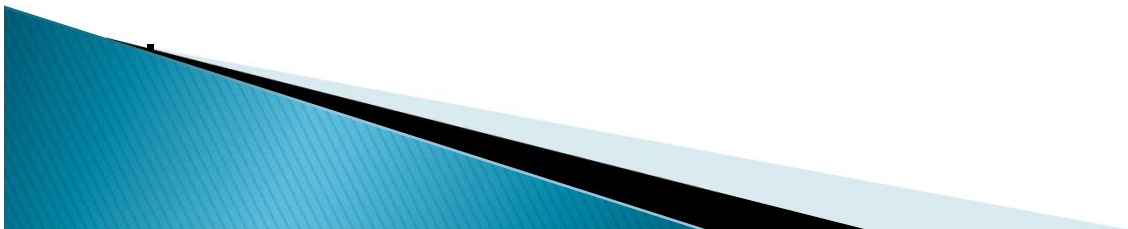


Content Validity

Questions were reviewed by

- ▶ 5 members of APTA's *School* based special interest group's (SIG) subcommittee on Intervention for Students with Autism
- ▶ 3 experienced NJ *school* based PTs
- ▶ An elementary *school* principal and a student assistance counselor (SAC)

On the basis of this review, several revisions were made to the questions to improve understanding of question content.



Methodology

- ▶ Expedited Institutional Review Board (IRB) approval from Northeastern University in July 2012.
- ▶ Survey emailed to 75 elementary school education professionals in 2 NJ school districts after receiving approval from respective superintendents.
- ▶ Survey was closed on October 10th, 2012.
- ▶ Response rate was 61 percent.



Results



Currents Trends to refer a student with ASD for PT services

In order of most used from top to bottom

- ▶ Speech/language pathology
 - ▶ Occupational therapy
 - ▶ Physical therapy
-
- ▶ [Carter et al. \(2011\)](#)

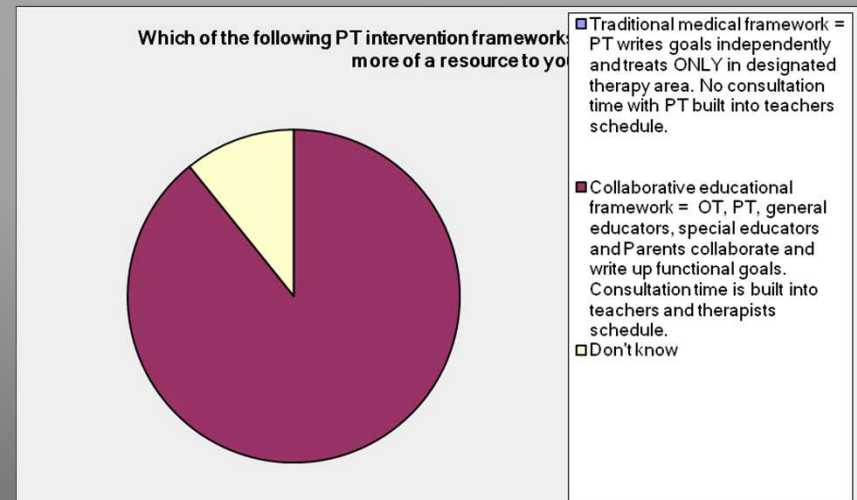
- ▶ Less than 25% of eligible students were referred for PT services.

Literature review

Survey results

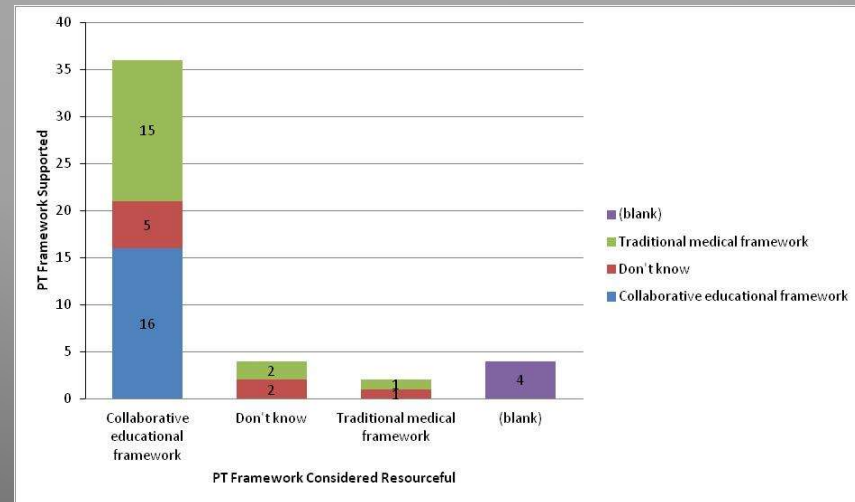
Survey results – Supports

- ▶ 82% of the respondents perceive a collaborative framework to be a resource to teachers



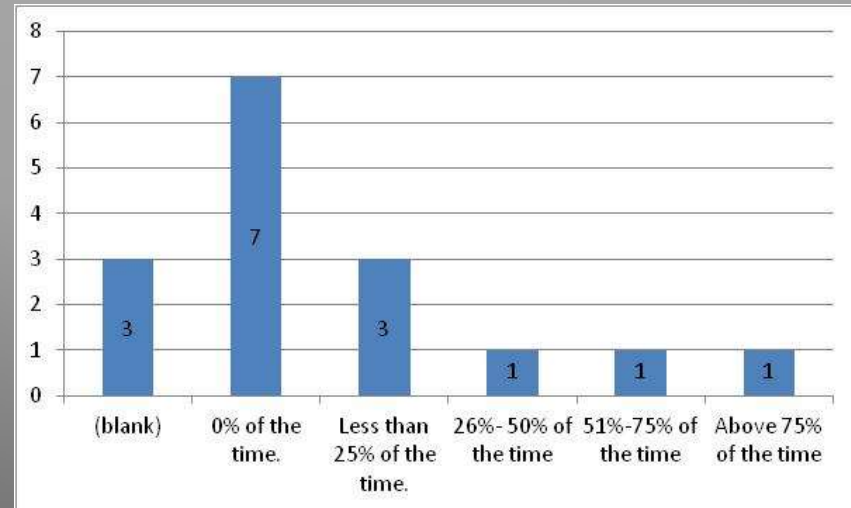
Survey results – Barriers

- ▶ 64% of these respondents report that their district supports a traditional framework and 36% report that their district supports a collaborative framework.



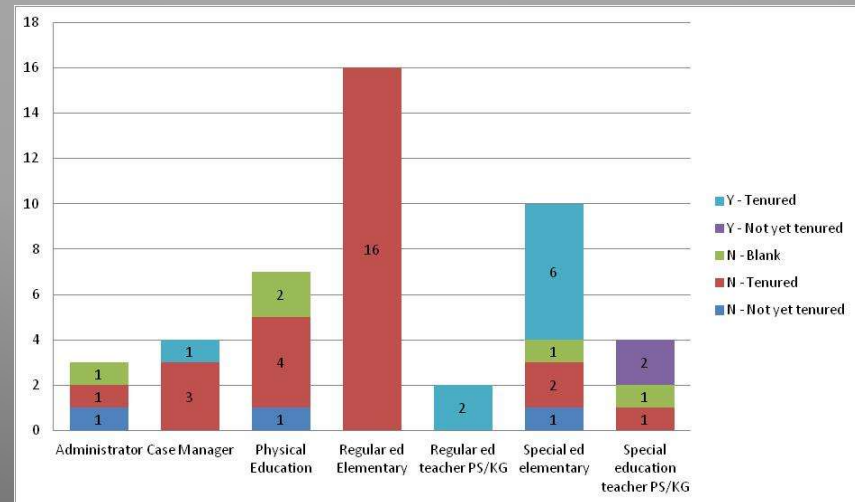
Survey results – Barriers

- ▶ Amongst the respondents who reported that they believed their district supported a collaborative framework, more than 50 percent reported that they did not have team meetings on a regular basis.



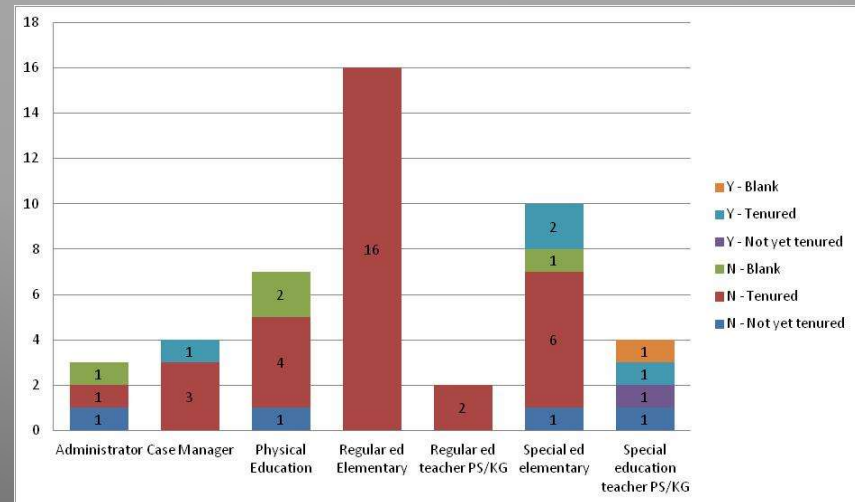
Survey results – Barriers

- ▶ 24% of the respondents have specialized training to teach special education students and 65% do not have specialized training to teach special education students and 10% of the respondents left it blank. (chart 4)



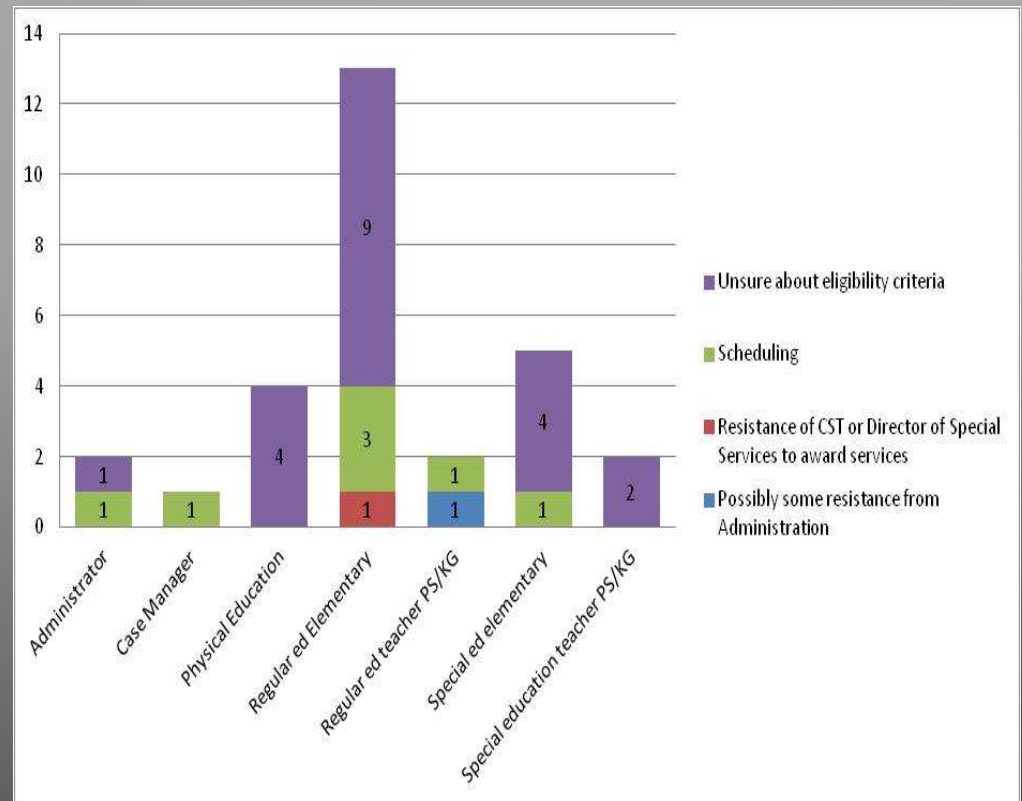
Survey Results (Barriers)

- ▶ None of the regular education teachers (Pre School and elementary) have training to teach students with ASD, 2 of the special education teachers have specialized training to teach students with ASD.



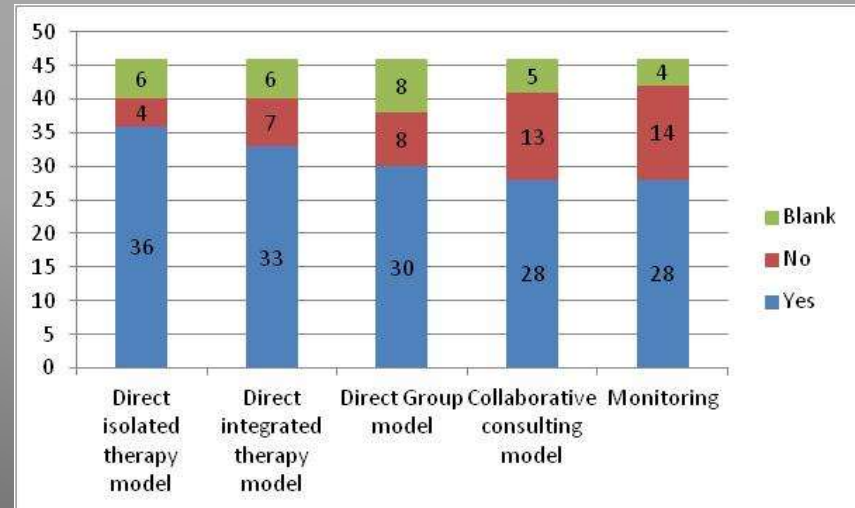
Survey results – Barriers

63% of the respondents reported perceiving barriers to referring students for PT services.



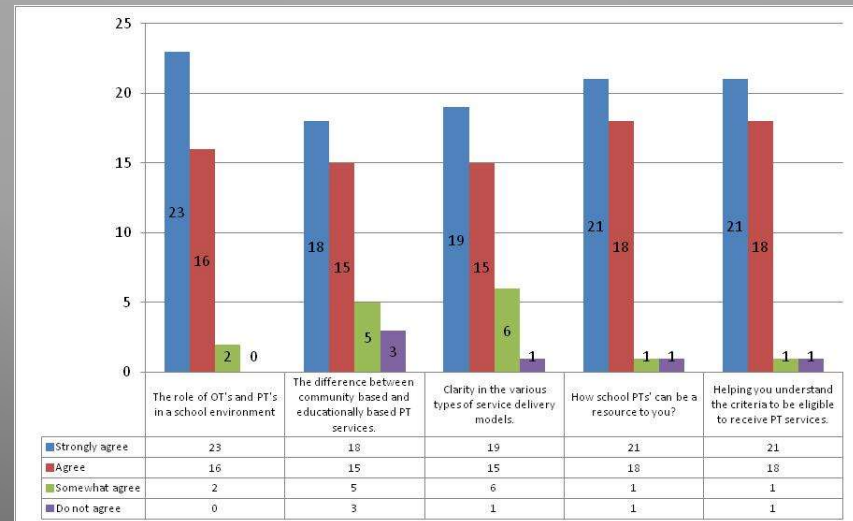
Survey Results – Barrier

- ▶ Respondents were most familiar with the direct pull out therapy sessions and least familiar with the consulting and monitoring service delivery model.



Survey results – Supports

- ▶ Professional day inservices that were identified to increase awareness about the role and responsibilities of educationally relevant PT services.



Discussion

- ▶ Teachers would benefit from support from the administration/Department of education in increasing their awareness about eligibility criteria for students with ASD to receive PT services.



Policy and procedures for the provision of specialized instructional support personnel (SISP)

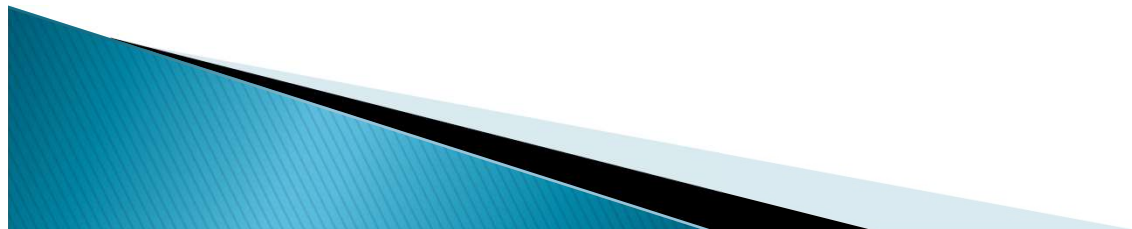
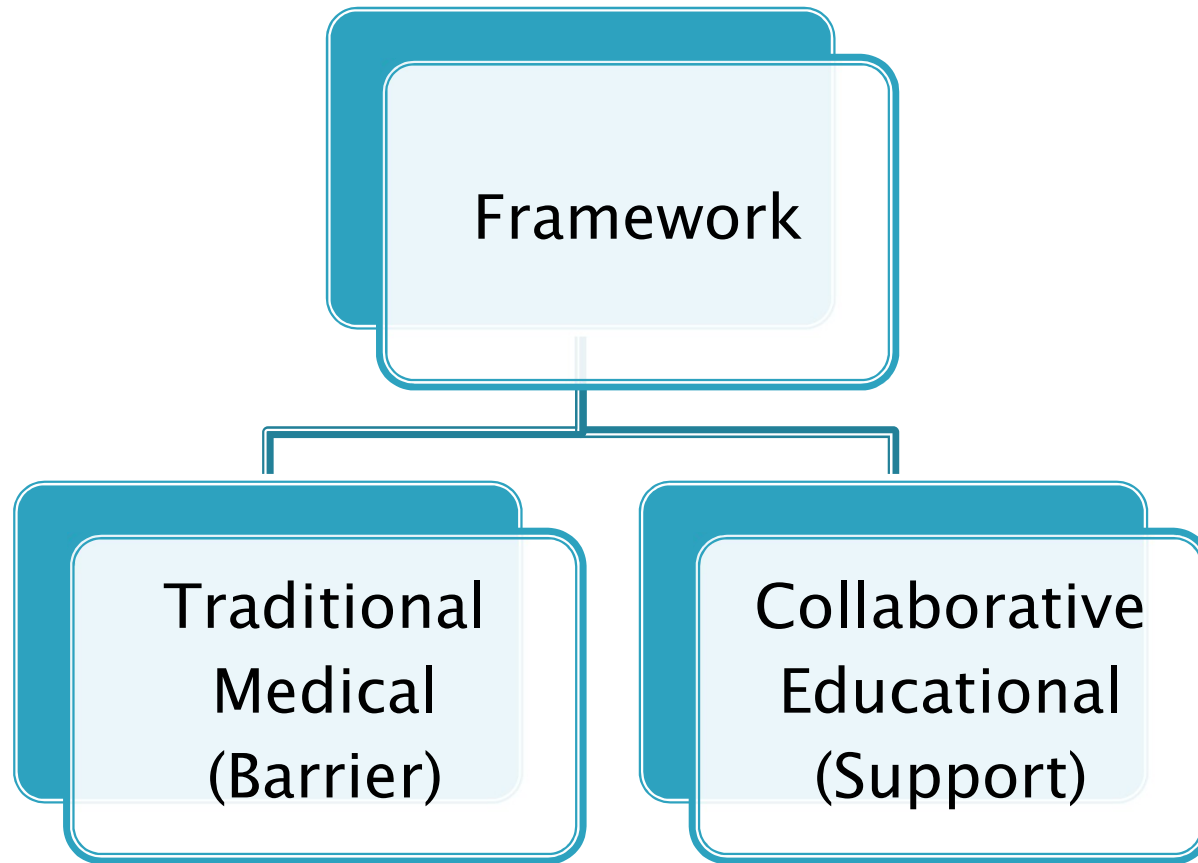
N.J.A.C. 6a: 14-3. 6 Determination of eligibility for speech-language services.

No code for OT and PT services. (Barrier)

Determination of eligibility for students with ASD for PT services depends on teacher's awareness of implications of ASD in school functioning.

When educational professionals are aware of eligibility criteria, they can make informed decisions about the resources that can be used.





Foundation of educational programming

- ▶ Team members often defer to one another rather than risk the potential conflicts associated with openly addressing SISS decisions.
- ▶ Team members openly discuss the benefits and challenges of their respective discipline specific recommendations with consideration of the challenges identified by the members in carrying out the recommendations in the pursuit of “shared goals” or “student goals”.

Traditional Medical Framework

Collaborative Educational Framework

Evaluation

- ▶ Comprehensive, independent evaluation by service providers
- ▶ Discipline referenced assessment tools.
- ▶ Focus on disabilities and problems specific to the discipline (motor/speech)
- ▶ Generally does not occur under natural conditions ie in the context of ongoing daily activities.
- ▶ High degree of collaboration and joint decision- making among team members(including parents) in conducting assessments
- ▶ Environment specific assessment identifies educationally relevant functional difficulties.
- ▶ Assessment conducted in priority educational environments and activities identified by the team. (circle time, hallway transitions, classroom attending skills etc)

Traditional Medical Framework

Collaborative Educational Framework

Identification and Prioritization of PT goals

- ▶ Therapists make unilateral decisions.
- ▶ Insufficient teacher involvement in therapy decision making.
- ▶ Teachers usually consider therapist as a “specialist” or an “outsider”.
- ▶ Therapist identifies “Discipline” specific goals .
- ▶ Team focus is on developing meaningful “*student*” goals and outcomes that promote participation in natural settings or efficient learning of other important skills.
- ▶ Team identifies staff instruction topics and supervision in implementing strategies.(Consultation and Monitoring)
- ▶ All members of the team are viewed as equal, possessing specific skills which contribute to the identification and development of strategies.

Traditional Medical Framework

Collaborative Educational Framework

Identification and Prioritization of PT goals

- ▶ May potentially cause confusion as probability of overlaps, gaps and contradictions between therapy recommendations and activities increases.
- ▶ EG., an OT may assume that the PT is addressing auditory sensitivity(fire alarm, toilet flushing etc) and the PT may assume that the OT is addressing it, when in fact no one is addressing this challenge that is impacting the student's school functioning
- ▶ Identify environmental supports (seat cushion, vest, visual supports etc) or task modification to encourage participation.
- ▶ Joint determination of basic disciplinary intervention strategies (movement breaks, positive behavior supports etc)to increase the effectiveness of instructional programming.

Traditional Medical Framework

Collaborative Educational Framework

Identification of PT service delivery model

- ▶ Teachers given information, little involvement.
- ▶ Students' usually segregated from other students (pull out service).
- ▶ Team decides on the most appropriate models based on student needs and generalization skills.

Traditional Medical
Framework

Collaborative Educational
Framework

Intervention and Outcomes

May provide excellent services, however, they

- ▶ Do not match the IDEA 2004 definition of SISP. Eg
 - Sometimes the therapy did not correlate with students' everyday environments, or transfer readily to requirements of the school setting.
- ▶ Intervention outcomes improve student performance in contexts in which students participate.
- ▶ Encourages generalization of skills, by providing learners more functional and frequent opportunities to practice a skill with role release.
- ▶ Devises methods to evaluate the effectiveness of the intervention.

Traditional Medical Framework

Collaborative Educational Framework

Literature review on contributing to the educational programming

- ▶ Minimal effectiveness on programming.
- ▶ More expensive
- ▶ Maximal effectiveness on programming.
- ▶ More economical.

Traditional Medical Framework

Collaborative Educational Framework

Conclusion

The results of this survey provide initial evidence that

- ▶ Only a small percentage of teachers have specialized training to teach students with ASD.
- ▶ None of the regular education teachers had received training to modify their teaching methods for students with special education needs or students with ASD.



Conclusion

There is

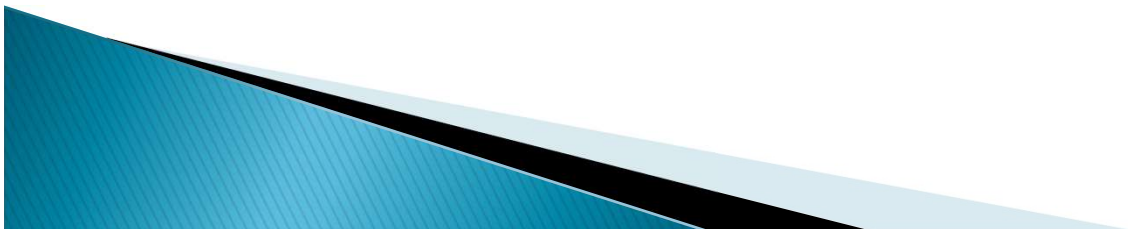
- ▶ an underutilization of therapy services for students with ASD
- ▶ lack of awareness about eligibility criteria
- ▶ Possible administrative or case manager resistance
- ▶ Lack of clarity in the roles of SISP and indirect service delivery models(Collaboration and Monitoring)
- ▶ Inadequate scheduled team meetings.



Bibliography

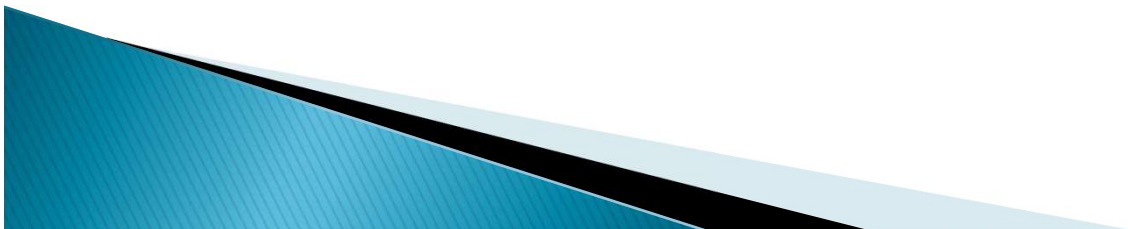
- ▶ Bibliography

- ▶ 1. Prevalence of autism spectrum disorders – autism and developmental disabilities monitoring network, 14 sites, united states, 2008. *MMWR SURVEILLANCE SUMM.* 2012;61(3):1–19.
- ▶ 2. Simpson RL. Evidence-based practice with students with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities.* 2005;20:140–149.
- ▶ 3. Delmolino L, Harris S. Matching children on the autism spectrum to classrooms: A guide for parents and professionals. *Journal of Autism and Developmental Disorders.* 2012;42(6):1197–1204.



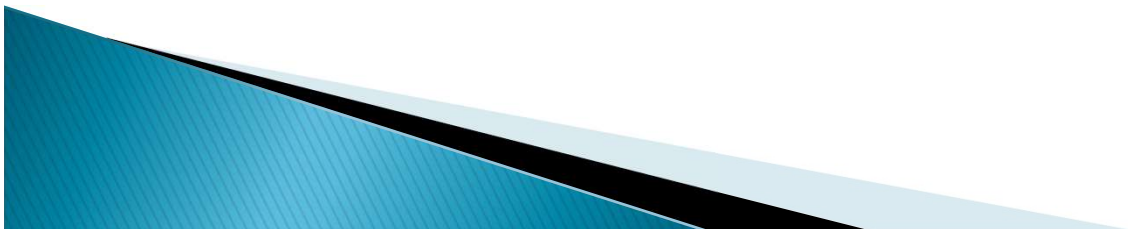
Bibliography (Cont)

- ▶ 4. Giangreco M, Prelock P, Reid R, Dennis R, Edelman S. Roles of related services (Cont)Personnel in inclusive schools. In: *Guidelines for making decisions about I.E.P. services*. Montpelier, VT: Vermont Department of Education.; 2001. Full Text PDF Available.<http://www.uvm.edu/~cdci/archives/mgiangre/Rolesofrelatedservicespersonnel.pdf>.
- ▶ 5. Rainforth B. Analysis of physical therapy practice acts: Implications for role release in educational environments . *Pediatric Physical Therapy*. 1997;9(2):54–61.
- ▶ 6. Villa R, Thousand J, Nevin A, Malgeri C. Instilling collaboration for inclusive schooling as a way of doing business in public schools. *Remedial and Special Education*. 1996;17(3):169–181.
- ▶ 7. Dybvik AC. Autism and the inclusion mandate. *Education Next*. 2004;4:42–49.



Bibliography (Cont)

- ▶ 8. Bundy A. Assessment and intervention in school-based practice: Answering questions and minimizing discrepancies. *Physical & Occupational Therapy in Pediatrics*. 1995;15(2):69–88.
- ▶ 9. Stuberger W, DeJong SL. Program evaluation of physical therapy as an early intervention and related service in special education. *Pediatric Physical Therapy*. 2007;19(2):121–127.
- ▶ 10. Lord C, Luyster R. Early diagnosis and screening of autism spectrum disorders, *Medscape Psychiatry Mental Health*. 2005;10(2).
- ▶ 11. Chawarska K, Klin A, Paul R, Volkmar F. Autism spectrum disorder in the second year: Stability and change in syndrome expression. *J Child Psychol Psychiatry*. 2007;48:128–138.
- ▶ 12. Effgen S, Klepper S. Survey of physical therapy practice in educational environments. *Pediatric Physical Therapy*. 1994;6(1):15–26.



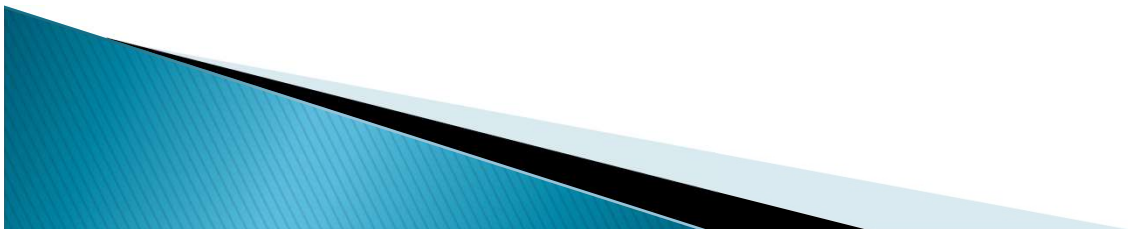
Bibliography (Cont)

- ▶ 13. National Autism Center. *Evidence-based practice and autism in the schools: A guide to providing appropriate interventions to students with autism spectrum disorders* Randolph, MA: National Autism Center, Inc.; 2009.
- ▶ 14. Villa R, T Adolfsson M, Malmqvist J, Pless M, Granlund M, Housand J, Paolucci-Whitcomb P, Nevin A. In search of new paradigms. *Journal of Educational and Psychological Consultation*. 1990;1(4):117-142.
- ▶ 15. Idol L, Nevin A, Paolucci P. *Collaborative Consultation*. 2nd ed. Austin, Texas: PRO-ED; 1994.
- ▶ 16. Office of Special education and Rehabilitative Services. *Guide to the individualized education program*. Washington, DC: U.S. Department of education.; 2000.
- ▶ 17. Identifying child functioning from an ICF-CY perspective: Everyday life situations explored in measures of participation. *Disability & Rehabilitation*. 2011;33(13):1230.
- ▶ 18. Magyar C. *Developing and evaluating educational programs for students with autism spectrum disorders* New York: Springer; 2011.



Bibliography (Cont)

- ▶ 19. York J, Rainforth B, Giangreco MF. Transdisciplinary teamwork and integrated therapy: Clarifying the misconceptions. *Pediatric Physical Therapy*. 1990;2(2):73–79.
- ▶ 20. Provost B, Crowe TK, Acree K, Osbourn PL, McClain C. Sensory behaviors of preschool children with and without autism spectrum disorders. *NZ J OCCUP THER*. 2009;56(2):9–17.
- ▶ 21. Provost B, Heirnerl S, Lopez BR. Levels of gross and fine motor development in young children with autism spectrum disorder. *Phys Occup Ther Pediatr*. 2007;27(3):21.
- ▶ 22. The usage and perceived outcomes of early intervention and early childhood programs for young children with autism spectrum disorder. *Topics in Early Childhood Special Education*. 2005;25(4):195–207.
- ▶ 23. Ming X, Brimacombe M, Wagner C. Prevalence of motor impairment in autism spectrum disorders. *Brain and Development*. 2007;29:565–570.
- ▶ 24. Mayes D, Calhoun L. Ability profiles in children with autism: Influenced of age and IQ. *Autism*. 2003(7):65–80.



Bibliography (Cont)

- ▶ 25. Cairney et al. Developmental coordination disorder, age, and play: A test of the divergence in activity-deficit with age hypothesis. *Adapted Physical Activity Quarterly*. 2006;23:261–276.
- ▶ 26. Yanardag M, Yilmaz I, Aras Ö. Approaches to the teaching exercise and sports for the children with autism. *International Journal of Early Childhood Special Education*. 2010;2(3):214–230.
- ▶ 27. Hollenweger J. Development of an ICF-based eligibility procedure for education in switzerland. *BMC Public Health*. 2011;11:1–8.
- ▶ 28. Odom L, Brantlinger E, Gersten R, Horner H, Thompson B, Harris R. (2005). research in special education: Scientific methods and evidence-based practices. *exceptional children*, 71, 137–148. *Exceptional Children*. 2005;71:137–148.
- ▶ 29. Tincani M. Beyond consumer advocacy: Autism spectrum disorders, effective instruction, and public schools. *Intervention in School & Clinic*. 2007;43(1):47–51.
- ▶ IDEA (<http://ideapartnership.org/>)

