

• **Descriptive Information**

Breakout Session C4 - Improving Quality in Early Childhood Education: What is the Role of Professional Development?

This session will examine providers' participation in different types of Professional Development (PD) and its association with improvements in teacher practice, child outcomes and program quality ratings. The presentations in this session bring forth different perspectives of the role of PD in improving quality in early childhood education, from studies using nationally-representative secondary datasets to randomized control trials looking at the effects of different types of provider feedback on practice. By bringing together these different perspectives, the presentation findings provide a fuller, broader picture of PD in early childhood settings that is difficult to achieve through the findings of a single study. This topic will elicit discussion around issues such as potential strategies to improve PD's impact on early childhood education quality, and the role of providers' characteristics, among others.

Facilitator

- Mallory Warner-Richter, Child Trends

Presenters

- Manuela Jimenez (Megan Pratt & Michelle Taylor), Arizona State University
- *James Elicker (Zachary Gold, Sharon Christ, Sara Lane & Aura Mishra), Purdue University
- Ann-Marie Faria, AIR

Scribe

- Nadia Orfali, Child Trends

• **Brief Summary of Presentations**

Summary of Presentation #1:

- Quality Improvement efforts in Iowa's QRS
- The research that I'm presenting today was conducted in partnership with the Iowa oversight committee, which includes staff from multiple organizations and programs.
 - How those quality improvement supports are used and how they might relate to increases in ratings over time
- Quality improvement supports fall into 5 categories
 - Not all programs make use of every category
 - Continuing education includes certifications as well as degree programs. Non-financial incentives could include materials or supplies.
- Two sources of data
 - The survey was developed in partnership with the RELMW team, who provided TA during the survey process. We have copies up front if anyone would like to see it.
 - Completed by 390 programs that are participating in Iowa QRS. Represents 65% of a random sample of programs that were asked to complete the survey
 - Historical data maintained by the state about Iowa QRS ratings over time
 - Used descriptive statistics to look at participation in quality improvement and logistic regression analysis to examine rating increases over time
- Results
 - Almost all programs reported that their staff attended training, and just under half participated in an average of 15 hours or more for key staff.
 - Two thirds of programs provided coaching to at least some of their staff, but regular/consistent coaching was rare.
 - Almost all programs reported that health and safety was part of staff training, which makes sense because it is part of licensing and integrated into QRS. Also child development and classroom practices.
 - Less common to receive supports about self-assessment, program management, and family engagement
 - One-third of staff were pursuing the next level, which makes sense because not every staff member needs the next level of education
 - Financial incentives were more common than non-financial incentives. Many programs reported receiving a grant for certain quality improvement or a grant to reach a certain level of QRS.

- 172 programs that were rated twice or more in the Iowa QRS. Ratings last for 2 years, and it's optional for them to be re-rated. The first rating occurred before the survey and the second rating occurred after the survey. 45% of programs had a higher rating at the second time point.
- Logistic regression to look at the relationship between different quality improvement supports and increases of ratings at the second time point. We controlled for the baseline rating and program demographics (center/home, funding, etc.)
 - Odds ratios in brown are positive relationships with rating increases, and the black show negative relationships with rating increases.
 - PD on management topics and participation in 15 or more hours on training were related to increases. Other brown bars were in the positive direction but not significant. These are very small odds ratios. Very negative relationship between child development PD and rating increases. This is hard to understand.
- Takeaways - these are not causal results, and these negative associations can be explained by other things that the program is doing that we did not control for.

Summary of Presentation #2:

- Paths to Quality Evaluation - series of evaluations since 2007. In this current phase we are looking at the provider outcomes after 2 years of data collection focused on quality improvement. We are also working on child outcomes and parent awareness that will come out later.
 - This study focuses on patterns of quality and levels of advancement in the 4 level system and factors that are associated with rating turnover in a 2 year period. This is not a study of coaching, this is a study of quality level advancement and some factors that are associated with it, including some coaching but not in depth.
 - We interviewed center directors and family child care providers, but not classroom teachers.
- About Indiana QRIS
 - Voluntary building block QRIS. All providers enter at level 1, which focuses on basic safety and health. Three pathways for different types of licenses. Started at a local level to inform parents about quality and incentivize providers to move towards national accreditation. This has been maintained in the bigger system.
 - Education requirement for a CDA for providers, no requirement for 2 or 4 year degrees for providers.
 - Paths to Quality offers a modest cash or equipment incentive when providers attain each level. The cash payments continue on an annual basis if they reach level 4. All providers are offered a quality improvement coach. When they get to level 3 they can request an accreditation coach. The model that's used in the state is called Learning 360.
 - High participation rate for a voluntary system and a shift towards the higher rating levels between 2010 and 2016.
- Sampled providers that started at level 1/2/3 in order to see how their ratings changed over time. Some attrition - 20% by the last interview.
 - In the interviews we asked demographics, attitudes, motivations, and relationships. We also noted how many times coaches changed over the 2-year study period.
 - In the coach interviews we had as many parallel items as possible, as well as asking about specific coaching strategies that they thought were effective for that provider.
- Results
 - First graph shows the paths to advancements for each providers starting at each level. Level 1 experienced the most quality change, almost no change in the level 3. There might be significant barriers between going from level 3 and level 4.
 - Graphs show the net change in different groups over time.
- Provider demographics logistic regressions - mixed effects models with waves nested within providers. Demographic variables then second looked at the interview variables with demographics included, then coach interviews with both demographics and provider interviews included in the model.
 - Results are presented as odds ratios that show the strength between the variables and the change in rated quality.

- The type of provider and starting rated level were associated with the rates of advancement. Child care centers and levels 1 and 2 advanced the most. Education, amount of training, years of experience, were all associated positively with the rate of quality improvement.
- In the multi-variate model, beginning level, masters level advanced degree, and years of experience came through as significant. A new indicator, number of organization memberships, came through as significant. Graph shows advancement depending on degree and shows the bump from having a masters degree.
- Interview results - conviction was a factor, answering questions with a "yes" instead of "I don't know". Expressing readiness, intention, and motivation to advance. With the multi-variate model, wanting to advance, and motivation to advance, and expressing that coaching was helpful were all significant predictors of advancement. No predication from coach continuity, which was surprising because the providers expressed that as important during provider focus groups.
- Coach interviews - provider's engagement and motivations, judgements about how likely provider will advance. Associations with consultations with directors and staff, observations, preparing for a rating visit.
- Conclusions and policy implications - provider education, child care experience, attitudes about the system, attitudes about coaching were related to advancement over 2 years.
 - This convinces us that we should attend to providers perspectives and provide coaching support that providers see as helpful.
 - Coach's perceptions of providers attitudes and willingness were related to advancement, so they should assess these at the beginning and tailor their coaching to these factors. Help them develop realistic quality improvement plans.
 - Next steps - Barriers between levels 3 and 4 in Indiana. Providers decide to stop at level 3 before accreditation. Some of these patterns of advancement are not advancing.

Summary of Presentation #3:

- Thoughts behind this study - hoping to hone in on the effectiveness of professional development.
- PD encompasses several different activities. Workshops, Coaching, Peer networks, etc.
 - Most research uses national or state samples and uses the broad PD term. We know that these should have different impacts. On the other hand, smaller samples would focus on one type of PD, which is too hard to generalize to larger samples.
 - We want to understand which activities are most effective by using nationally representative data about different PD supports and look for patterns between the activities that are associated with outcomes.
- Combined two cohorts of FACES samples (2003 and 2009).
 - Two questions about PD, and we had specific questions about activities and mentoring so we used these items for our study.
 - The average teacher received 6 of these PD supports in classrooms, and there is high variability in PD experiences. We looked for patterns and found nothing - every teacher seemed to have a distinct PD experience.
 - We looked at variety of PD experiences. Did receiving several vs. one have an impact on outcomes?
 - We also looked at wellbeing. Even after we controlled for number of PD hours, we see that a variety of PD experiences led to an increase in teacher wellbeing measures. No significant findings about several variables for teacher practices and child outcomes.
- Even though we have null findings, we see this as informative for how we do this type of research. Is this reality, or is it the items/methodology? We don't have a national dataset that allows us to look in depth at professional development, and because of its importance to policy we feel that it should be included. We are also interested in teacher's perceptions about PD. We are also interested in PD systems that will better support teachers.

Summary of Presentation #4:

- Impact of providing preschool teachers with individual feedback on provider ratings of child outcomes. There is evidence that shows that coaching and mentoring are effective at changing practices/increasing quality, but this is an expensive intervention. What is the correct dosage of coaching and feedback to move the lever of teacher practices? Impact of a light touch implementation of feedback in Ohio on ELLCO.
 - Secondary purpose was to give the observation feedback to teachers and admins.

- Feedback report on the ELLCO. Not the language checklist, but the actual observation. The report had the ratings on a 1-5 scale as well as descriptive statements that explained the ratings. They received these by mail and then were invited to a video stream that they could speak with a coach about the results (optional).
- About 1200 teachers received feedback. Teachers were randomly selected within strata. 413 different lotteries across this time period, which gave natural random assignment of the feedback within the groups.
- The sample is unique - demographic characteristics. Average of 40 years old and 70% had a masters degree, and many classrooms were special ed. These were equivalent at baseline, but they are still included in the model. There was good cooperation with the random assignment for the feedback (84% of tx and 5% of control).
- There was not an overall effect of the feedback on all teachers. However, there was a significant and large effect for new teachers. Why did this work for new teachers and not experienced teachers? It wasn't because they had room for improvement (same baseline scores).
- Impact on provider's quality overall. Used their step up to quality rating (3 steps but also a 0 rating). Created a before/after aggregate score by selecting sites that had at least 1 teacher who received feedback as "treatment" sites. There was a slight increase in their quality rating if a teacher was in the treatment group.
- Impacts on children. Positive effects on children, get it, got it, go tasks (picture naming, rhyming, alliteration). K ready assessment - K crawl that focused on literary skills. See the same pattern as you do for the classroom quality - affected new teachers. Small but approached significant.
- Implications
 - It offers promise as a supplemental report where we can cycle information back to teachers if we are already doing observations.
 - Also raises questions about the new teachers. Some theories are that new teachers are more malleable. They might also perceive the feedback in different ways - they might see it as more reliable, credible, etc. Future research could see how new/experienced teachers perceive feedback, and how can we get all teachers to view feedback as credible.
 - Coaching/mentoring is not a one size fits all approach. Consider individual characteristics - and how to teach coaches to do this.
- Questions for Katie
 - Sample size clarification
 - I did not have data on who attended the feedback sessions with the coaches, it was optional.

Brief Summary of Discussion:

- Questions and Discussions
 - Themes - Ways that we can learn about measurement of PD. Providers level of education, clumping BA+ but seeing more advanced degrees being separated.
 - Toni Porter - Who included family child care? I'm interested in the results between centers and family child care.
 - Jim - in terms of advancement, the rates for family child care were lower than they were for the centers.
 - But it's comparing center directors to family child care providers, which is like comparing a child who speaks 2 languages to a child who speaks one. FCC providers are doing so much more.
 - Toni - but I'm also interested how your results are consistent within the two groups, for example, the masters degrees results in family child care.
 - Iowa - we saw different rates of advancements in the groups but didn't have big enough samples to split everything up. Split it up by home based care without assistants and with assistants, which gets at what you were saying a little bit. The family child care individuals (no assistants) ratings of other types of activities was so low. This is a rural state. Often "assistants" were high school students after school or they were husbands helping out - what is appropriate to state fund PD for this types of people?
 - Thinking about questions for the new baby FACES. When do you get mentoring/coaching, content, there are a lot of issues about how we ask those questions. We can ask directors about how and we can ask teachers about what. Curriculum is a particular interest, especially how teachers learn about it.
 - Tamara Halle - it matters what type of curricula?

- Manuela-Controlled for the creative curriculum because that was the most common, but I don't remember it being overwhelming.
 - Tam - the national survey has a question about curriculum, and we need to think about what categories we try to capture in these surveys. Consensus as a field about what to ask - did you get the training that the model required? What else did you do?
- We expected PD to vary at the center level (e.g., the director is driving it), but in reality it was at the teacher level. There has to be something about the teachers, where they are looking for more or less or different types. I think if we ask center directors about PD, we aren't getting at everything because it's not relevant to each teacher.
- Have you looked at age of providers, other life circumstances that lead to attend PD and not PD causing these other well-being factors.
- Tracking between who attends PD, and tracking what a center director offers and who attends. Is it the teachers who are more advanced or who need it that attend PD?
 - Manuela - Yes, we've seen that Latino teachers get less supports.
 - Jim - we were hoping to have more specific data from a state data system from coaches but it has turned out to be much more messy.
- Roberta Weber - what is the licensing requirements for training in Iowa? The training numbers looked low.
 - 97% of programs reported that their staff participated in training. 47% of programs reported that their staff got 15 hours of training.
 - Iowa has low requirements, so interested in requirements and relationships to teacher behaviors.
 - I think 12 is the most, and family child care providers might be higher. It varies by staff type but 15 hours is higher than any requirements.
- For Jim - how do you interpret how the membership organizations appeared to be significant in the multivariate model and not in the bivariate models?
 - Jim - I don't really know. There was a correlation between professional engagement in these organizations and the level that they are at in the beginning of the study, so this might be why it came out. I think there is a lot of work to do to identify strategies that fit the needs of providers and professionalizing the field.
- Second question - several of you used logistic regression, and sometimes the model is significant but overall the variance that is explained is very low overall. Should I say that this is explaining a relationship?
 - Jim - All I can say is that is early care and education. Unless you are looking at a specific intervention, it's going to be low.

Summary of Key issues raised (facilitators are encouraged to spend the last 3-5 minutes of workshops summarizing the key issues raised during the session; bullets below are prompts for capturing the kinds of issues we're looking for)

- Understanding the relationship between professional development/training/coaching/feedback and quality of practices is a challenging endeavor.
 - Context is important to consider (QRIS, type of program, other organizational supports)
 - Measurement can be improved, particularly with respect to content of the PD.
 - It is difficult to understand the influence dosage.