Maximizing the use of the intraprofessional team to develop interprofessional pediatric primary care teams

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ABSTRACT
Pediatric well-child care focuses on growth, development, physical examination, and caregiver education for health prevention and promotion. There is limited time for providing all of these services within typical well-child visits. A series of research activities explored opportunities for interprofessional collaboration within pediatric primary care teams during well-child care. The four research activities included a focus group with occupational therapy practitioners, observations of well-child visits, and two caregiver surveys; two faculties and two students were involved as part of the intraprofessional research team. Results of the research activities identified opportunities for allied health professionals as part of the pediatric primary care team to support incongruence between current care delivery and caregiver preferences for care. While activity participation was found to be well addressed in primary care, an increased focus on understanding the impact of child and family habits, routines, and contexts on activity participation is an opportunity for interprofessional primary care teams to promote health outcomes for children.

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Introduction
Pediatric primary care (PC) is critical for children and families, particularly for those at highest risk for health and wellness disparities. An important function of pediatric PC is managing well-child care, which comprises about a third of the visits to pediatric PC services (Hamming & Jozkowski, 2015; Ray et al., 2020). Well-child visits are most often offered by a PC provider (physician, physician assistant, or nurse practitioner) and emphasize growth and development, physical examinations and screening tests, and health promotion and prevention strategies (Centers for Disease Control and Prevention [CDC], 2020; Moreno, 2018). PC is challenged by increasing complexities in pediatric healthcare: social factors impacting children’s health, access and reimbursement, family inclusion in services, lack of provider time, and inadequate provider training/expertise while resolving a wide range of health problems without referral (Hamming & Jozkowski, 2015; Riley & Freeman, 2019; Sanghavi, 2005; Schor & Bergman, 2021; Stille et al., 2017).

The scope of many allied health professionals, including occupational therapy (OT) practitioners, encompasses developmental screening and family and caregiver education as well as health prevention and promotion education, which can help address the challenges in PC practice (American Occupational Therapy Association [AOTA], 2020; Moreno, 2018; Sanghavi, 2005). More specifically, the focus of allied health services on anticipatory guidance, caregiver education focused on health promotion and prevention, has been found to increase caregiver knowledge, support child health outcomes, and influence health behavior change (Hamming & Jozkowski, 2015; Sanghavi, 2005).

Interprofessional and intraprofessional services have been shown to be important for providing quality pediatric PC services; however, there is inconsistency in how various allied health professionals are involved in pediatric PC teams (Freund et al., 2015; O’Reilly et al., 2017). There is evidence to show that interprofessional team members see the value of their collaboration to support health and wellness outcomes for children and families although a shared vision on how to achieve this collaboration is not clear (O’Reilly et al., 2017). Furthermore, intraprofessional collaboration is necessary to support clear communication with healthcare recipients (Gobis et al., 2018).

Therefore, it seems necessary to identify existing pediatric PC practices and the priorities of the stakeholders involved to inform steps for building interprofessional collaboration in pediatric PC. This article will share formative assessment activities designed to identify existing pediatric PC practices and priorities of the stakeholders involved to inform steps for building interprofessional collaboration within PC. The formative assessment activities examined two questions: 1) What interprofessional education is needed during well-child visits? and 2) What levels of support may be necessary for interprofessional collaboration during well-child care? Implementing integrated PC pediatric healthcare programs is anticipated to provide positive results for PC team members, interprofessional allied health professionals, and children and their families, especially for those in the at-risk categories who are less likely to access regular care and experience higher rates of chronic disease (Tom et al., 2010).
Method
An intraprofessional team consisting of two OT faculty and two students (one undergraduate occupational therapy assistant (OTA) student and one graduate OT student) collaborated to complete the formative assessment activities. For feasibility purposes, OT practice principles were most closely examined within the PC team for interprofessional collaboration opportunities. An established conceptual framework for addressing the constraints and barriers when providing health promotion pediatric PC services was used and included three parts: the structure of care, the processes related to care provision, and the health outcomes of the recipients of care (Beck et al., 2016). Table 1 outlines the connection of each assessment activity to the conceptual framework in order to explore the structure, process, and desired outcomes for providing intraprofessional pediatric PC services to promote health outcomes (Beck et al., 2016).

The first assessment activity examined the structure of care delivery through the use of a focus group conducted with OT practitioners who worked in school systems in the state of Virginia. This focus group’s purpose was to explore existing models of interprofessional collaboration and understand priorities when integrating multiple professions into a care delivery structure. A scissor and sort method was used to analyze the focus group data (Stewart et al., 2007). This method involves highlighting and identifying important quotes throughout the transcript text and then cutting them apart and sorting them into piles to identify themes and subthemes from the data.

The second assessment activity focused on examining the current process of well-child care delivery through observations of PC provider (MD, PA, and NP) interactions with caregivers and children during well-child clinic visits in Minnesota and Virginia. The OT practice framework (American Occupational Therapy Association [AOTA], 2020) was used to develop an observation grid for tracking that was discussed by the PC provider during well-child care of children between birth and 18 years of age. The investigators used an observation grid to note the discussion of activities such as toileting, play, and school during the well-child visits. The investigators also made note of discussion about the child’s patterns of engagement, such as routines and habits and contextual influences on activity participation. The analysis of activity participation was classified as fully addressed, partially addressed, missed opportunity, or not applicable. Frequencies of each classification in each activity, pattern of participation, and context were used to examine the results.

The third and fourth assessment activities included caregiver surveys designed to examine the perceptions of the recipients of care, caregivers, related to utilization of services, opportunities for collaboration, and areas of need. The first survey used convenience sampling and a snowball method through social media to gather information. The second survey also used convenience sampling at the Minnesota State Fair. Both surveys aimed to obtain caregiver perspectives related to interprofessional team members and types of caregiver education preferred within well-child care. Descriptive statistics were used to analyze the data.

The intraprofessional team met on a weekly basis over the course of the nine months in which the research activities were conducted to inform methodology plans and analyze data from an intraprofessional perspective. Profession-specific terminology and the relationship of that terminology to interprofessional terminology were explored during each phase of data collection and analysis. For example, while using the scissor and sort method for the focus group data analysis, intraprofessional collaboration was needed to agree on the significance of the qualitative data. This supported a shared intraprofessional value and language for future intraprofessional collaboration.

Results
Across all four assessment activities, inconsistencies and gaps in developmental screening and caregiver education, including anticipatory guidance, were noted. Opportunities for the role of allied health professions not traditionally involved in pediatric PC services were identified. The importance of communication and collaboration with the caregiver was also noted in the outcomes of more than one assessment. Figure 1 provides an overview of the key findings within each aspect of the conceptual framework for pediatric primary care services.

Structure of care
Focus group themes indicated a lack of a defined role within the interprofessional team for OT and other allied health professionals such as physical therapists, speech language pathologists, social workers, and psychologists in developmental screening; however, participants identified possible new opportunities for the named allied health professionals during developmental screening and work with general childhood population health. Addressing student participation within academic and non-academic school contexts and routines and sharing professional knowledge among team members were other opportunities noted. Additionally, participants reported that often times, the caregiver was the main mode of communication from one care team to another; without caregiver initiation of the engagement among team members, collaboration did not often occur.

Process of care delivery
Well-child visit data indicated child participation was discussed in a variety of daily activities across age levels. The most commonly addressed activities across the 27 well-child visit observations were feeding and eating, functional
communication, safety, toileting, and social participation with thorough discussion in 40% or more of visits. Conversely, patterns of participation, such as habits and routines, and contextual factors impacting participation in those activities were addressed thoroughly in less than 26% of visits.

Recipient outcomes
The results of the first survey indicated utilization preference for pediatric PC teams, specifically ranking 1) dentist; 2) physician, physician assistant, and nurse practitioner; 3) nurse; 4) occupational therapist; 5) developmental or clinical psychologist; and 6) nutritionist as the top six of fourteen providers they would like to access as part of their child’s medical healthcare team. The second survey examined caregiver areas of need for anticipatory guidance; online resources and apps, verbal/oral education, and caregiver education packets/brochures/pamphlets were the three highest ranked methods of sharing and receiving information with healthcare professionals.

Discussion
Consistent with prior literature, interprofessional stakeholders across all four assessment activities identified opportunities for and interest in including additional professionals on the PC team (O'Reilly et al., 2017). Opportunities for involvement of team members not currently involved in developmental screening and general childhood population supports were identified including occupational therapists, physical therapists, speech and language pathologists, social workers, and psychologists during the ‘structure of care’ assessment activity. Focus group participants identified knowledge sharing through professional role release as a mechanism for collaboration within screening and intervention supports. During the ‘recipient outcomes’ assessment activity, dental providers, occupational therapists, psychologists, and nutritionists, all professionals not typically seen in PC, were noted in the top six team members that caregivers would like as part of their child's medical team. The ‘process of care delivery’ activity identified opportunities for discussion of habits, routines, and contexts and their relationship to health outcomes, a key area within the OT scope of practice (American Occupational Therapy Association [AOTA], 2020). The variety of perspectives offered by allied health professionals may support anticipatory guidance and better meet desired interprofessional goals of promoting child health and wellness outcomes. Currently, there is inconsistent use of allied health professionals within pediatric PC teams and when integrated a siloed approach to inclusion of these professions is utilized (Freund et al., 2015; O'Reilly et al., 2017).

While considering additional professionals and perspectives on the PC team was identified as critical, the role of the caregiver was also identified as important to building quality interprofessional teams during the ‘structure of care’ and ‘recipient outcome’ activities. Caregiver survey responses and focus group themes indicated the critical role caregivers play in health promotion for their children. However, survey findings indicated that caregiver preferences for education and anticipatory guidance do not necessarily align with their current experiences when engaging with PC team members. Recipient outcomes, including client satisfaction, quality anticipatory guidance, and positive health outcomes, influence reimbursement and ultimately the structure of care. New reimbursement models, such as patient driven payment models, provide interprofessional teams an opportunity to meet caregiver preferences for addressing diverse health needs and could be a mechanism for further integration of additional team members into PC models. Including allied health professionals, such as OT practitioners, in developmental
screening and anticipatory guidance within PC teams could better meet recipient’s needs and in turn improve overall child health outcomes (Sanghavi, 2005).

**Call to action**
Two key steps were identified as mechanisms for supporting interprofessional collaboration within pediatric PC teams. First, when interprofessional teams share their professional culture and language, there is opportunity to optimize PC team collaboration. During development of formative assessment activities and follow-up projects, the OT team specified professional language related to habits, routines, and contexts, which was used to discuss the expanding role of who should be involved in the pediatric PC team, while exploring where PC services might best be offered. Shared goals and the team structure/climate begin with intraprofessional teaming and are key considerations for interprofessional PC collaboration (Pullon et al., 2016).

Second, it is important to harness team decision-making processes to support interprofessional team collaboration (Mulvane et al., 2016). The OT research team engaged in problem-solving with PC providers while developing formative assessment activities. Open communication regarding possibilities and challenges to development of the partnership was essential. Findings across assessment activities support including caregivers within the collaborative team process. Inclusion of all stakeholders, healthcare professionals, administrators, regulators/policymakers, and recipients of care in the development of the PC team and services is essential for effective collaboration and to support quality outcomes.

**Limitations**
There were a few limitations throughout the assessment activities. Existing relationships with individual PC providers were used to discuss potential project involvement. Additionally, we found that there were differences in the availability of programs and systems in Minnesota versus Virginia, which led to some project activities occurring in only one state versus both, such as the focus group in Virginia and the caregiver survey at the Minnesota State Fair.

**Conclusion**
Intraprofessional OT collaboration on project activities revealed the consideration of habits, routines, and contexts in relationship to developmental milestones and activity participation within well-child care is crucial for interprofessional teams to support the health of children. Allied health professionals play a clear role in participating earlier in the healthcare process on pediatric PC teams to promote child development outcomes.

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