Teaching PECS Communication Partners: A Review of the Literature

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BACKGROUND
Picture Exchange Communication System (PECS) is a frequently used AAC technique for individuals with autism (ASD) and is classified as an emergent intervention for individuals under age 22 (National Standards Project, 12).

Much of the early work on PECS involves researchers acting as communication partners, directly teaching PECS to individuals with disabilities. However, in practice, education professionals are common, natural communication partners who implement PECS.

“The continued success of PECS also will depend on the quality of training provided by those implementing the system” (2, p. 742) necessitating effective training for communication partners.

OBJECTIVES
This systematic search of the literature sought to answer the following questions:
1. Which education professionals (EPs) have been trained to deliver PECS interventions?
2. What phases of the PECS intervention have EPs been taught to support?
3. What instructional procedures have been used to train EPs in the use of the PECS protocol with individuals ASD, and to what extent do they practice, incorporate, and evaluate?
4. What has been the observed impact of these training procedures?

RESULTS

<table>
<thead>
<tr>
<th>Education Professionals</th>
<th>Communication Professionals</th>
<th>Instructional Procedures</th>
<th>Outcomes</th>
<th>Generalization</th>
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<tr>
<td>- 80 EPs across 7 studies</td>
<td>- Minimal to no prior experience with PECS and a range of experience with individuals with severe disabilities (4 months to 6 years)</td>
<td>- Researchers provided PECS training (71%), two use PECS consultants</td>
<td>- Majority were young children (i.e., 2 to 8 years old) with ASD</td>
<td>- Across people &amp; settings: 2 studies (6, 15) trained EP to implement PECS with an adult confederate to mastery criteria before asking the EP to generalize to an individual with ASD</td>
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<td>- Two studies included adult communicators with ASD or multiple disabilities</td>
<td>- PECS Phases 1-3/1-4</td>
<td>- Across activities: 2 studies (4) EPs were trained to implement PECS in two target activities (art and gross motor).</td>
<td>- Immediate increase in quality and quantity of PECS opportunities (86% of studies, 6 of 7)</td>
<td>- Across people &amp; settings: 2 studies (6, 15) trained EP to implement PECS with an adult confederate to mastery criteria before asking the EP to generalize to an individual with ASD</td>
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<td>- Maintenance reported in 43% of studies (n=3)</td>
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<td>- Average training time of 17.7 hours (range: 9-22 hours)</td>
<td>- EPs maintained quality in all studies</td>
<td>- Across people &amp; settings: 2 studies (6, 15) trained EP to implement PECS with an adult confederate to mastery criteria before asking the EP to generalize to an individual with ASD</td>
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CONCLUSIONS & IMPLICATIONS

EPs provided with opportunities to practice and receive feedback demonstrated increased communication partner behavior (i.e., quality & quantity of PECS opportunities)

There presently exists within the field a need for training that is effective and efficient, for both the PECS trainer and the EP. Interventionists and researchers are encouraged to consider how technology may increase efficacy.

Another possible approach to enhance efficiency is pyramid training: an advanced professional first teaches a small group of individuals, who then teach another group of practitioners (10, 14).

Implementationists and researchers are encouraged to identify strategies to support EPs in providing PECS opportunities for a wider range of communication behaviors, in both the PECS protocol and beyond.

REFERENCES

METHOD
Peer-reviewed PECS communication partner training studies were identified by searching three databases with varying combinations of the terms: Picture Exchange Communication System, training, teaching, implementation, communication partner, teacher, parent, and staff.

Articles were screened with the following criteria:
- An experimental study was conducted and data were reported on communication partner behavior.
- At least one paragraph outlined training procedures that included three of the five instructional variables: description of trainer, format of training, location of training, materials used, duration
- The target population included individuals with severe developmental disabilities as communicators during intervention and/or generalization phases; no specific exceptionality was excluded

Reference lists as well as articles that cited included studies were examined for any additional studies.