A study involving 83 child care providers conducted two surveys to investigate providers' self-perceived knowledge, skills, and attitudes toward working with children (and their families) who are exposed to substances, and their attitudes towards children with Down syndrome and children who are chronically ill. Results from the surveys indicated: (1) attitudes toward children who had been exposed to substances were poorer than toward children with Down syndrome, but were not significantly different from attitudes toward children with chronic illness; (2) participants who had received prior training in working with children who are chronically ill had better attitudes toward these children than those who had not received training; (3) participants who had received prior training in working with children who had been exposed to substances had poorer attitudes toward these children than those who had not received training; (4) providers' self-perceived level of knowledge or skill regarding working with children exposed to substances had no relationship with attitude scores; and (5) the only significant correlations were between the attitude subscales and between self-perceived level of skill and level of knowledge regarding working with children exposed to substances. (CR)
Examining Child Care Providers' Attitudes Toward Children Who Have Been Exposed To Substances And Their Families: Final Report (PR Award #HO23B50051)

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Submitted to the Office of Special Education Programs, Office of Special Education and Rehabilitative Services, US Department of Education.
Examining Child Care Providers' Attitudes Toward Children Who Have Been Exposed To Substances And Their Families: Final Report

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University of North Carolina at Chapel Hill

Children who have been prenatally substance exposed are often reported to display a wide range of problematic behavioral characteristics and learning difficulties. Early intervention could play an important role in minimizing the need for future special education services which will likely be required by many of these children, who are appearing in increasing numbers in preschool and elementary classrooms. Many child care providers may need special support and assistance in designing an effective interaction pattern with these children and their families, if they have not had formal training in this area. In order to help establish these effective interaction patterns, we must first examine caregivers’ self-perceived knowledge, skills, and attitudes toward working with children exposed to substances and their families to see where training is best targeted.

The current research study obtained this information through the administration of two surveys: *Self-Rating of Professional Knowledge and Skills* (adapted from Bailey, Buysse & Palsha, 1990) and *Attitudes Toward Special Populations Survey* (McMillen & Simeonsson, 1996). The *Attitudes Toward Special Populations Survey* also assessed caregivers’ attitudes toward two other special populations (children with Down syndrome and children who are chronically ill) for comparison purposes.
Hypotheses of the study:

1. Child care providers’ attitudes will be poorer toward working with children exposed to substances and their families than toward working with (a) children who are chronically ill and their families and (b) children with Down syndrome and their families.

2. Attitudes toward working with children who have been exposed to substances and their families are related to self-perceived level of knowledge and skills in working with this population, and extensiveness of prior training in issues surrounding children who have been exposed to substances.

Proposed Major Program Activities:

1. Development of the Attitudes Toward Special Populations Survey;

2. Pilot testing of the Attitudes Toward Special Populations Survey;

3. Revision of the Attitudes Toward Special Populations Survey;

4. Coordination with Project Great Start to obtain subjects;

5. Data collection;

6. Data summarization and analyses;

7. Dissemination of results;

Project Objectives:

1. Examine child care providers’ self-perceived level of knowledge about working with children who have been exposed to substances and their families.

2. Examine child care providers’ self-perceived level of skill in working with children who have been exposed to substances and their families.
3. Examine child care providers’ attitudes toward working with children who are substance exposed and their families.

4. Examine child care providers’ attitudes toward working with children who are chronically ill and their families.

5. Examine child care providers’ attitudes toward working with children who have Down syndrome and their families.

**Strategies for Meeting Project Objectives:**

1. Administer *Self-Rating of Professional Knowledge and Skills* to 100 child care professionals prior to Great Start training sessions.

2. Administer *Attitudes Toward Special Populations Survey* to 100 child care professionals prior to Great Start training sessions.

**Description of Program Activities:**

1. *Development, pilot testing, and revision of the Attitudes Toward Special Populations Survey:*

   The *Attitudes Toward Special Populations Survey* was to be pilot tested in the Frank Porter Graham child care center. Instead, a panel of experts in the area of scale construction, particularly in reference to child care providers, special education issues, and substance exposure was polled to determine the applicability and appropriateness of the survey questions, format, and topical areas covered. After two rounds of revisions based on the comments of the panel, the revised survey was submitted for Institutional Review Board approval. The amount of time taken to complete these steps was three months, similar to the original timeline. Reliability of the measure was examined using the data collected from the participants in the study.

2. *Coordination with Project Great Start to obtain subjects:*
Coordination with Project Great Start to obtain subjects was to take place over a period of seven months. Two of these months were to be devoted to becoming familiar with their training activities and coordinating opportunities for recruiting subjects. Five of these months were to be utilized for data collection.

The topic of the Great Start training sessions prior to the start of data collection was training for child care providers, directors, and related personnel about substance abusing environments and the consequences of these environments. Once data collection was to begin, Project Great Start instead offered training sessions on involving families in the child care center program in order to help eliminate the possibility that possible subjects for the study would have positive attitudes based on their decision to attend the training sessions alone. Training sessions also offered three training credit hours to increase the number of possible subjects who would attend. The lateness in funding the student initiated grants, due to the unforeseen government shut-down, allowed us to obtain subjects at only three Great Start training sessions. This allowed us to gain 45 subjects.

3. Data collection:

Since the Great Start project ended before data could be collected from 100 subjects, our project made the decision to supplement training data with surveys mailed to child care centers in five local counties, targeting centers which were private, franchised, church-based, home-based, and Head Start affiliated. In total, we were able to collect data from 83 subjects overall.

4. Data summarization and analyses:

Data were to be summarized and analyzed for the last three of the five months of data collection. This occurred as anticipated. Data were collected on summary sheets and entered
into data files in SPSS (Statistical Package for the Social Sciences) Version 6.1.2 format. Data were analyzed by project staff using SPSS. The goals of the study required descriptive statistics, data screening, scale reliability estimation, and the testing of the proposed hypotheses. Other statistical procedures were to be employed as necessary if unusual conditions existed in the structure of the data.

5. **Dissemination of results**

Dissemination activities were to formally take place during the last two months of the project, but could also occur throughout the project as opportunities arose. Submission of an article for publication in a scientific journal is planned for this spring. Submission of proposals for presentations at national, state, and local conferences, as well as bi-annual inservice presentations at FPG and throughout UNC, are also planned for this spring.

**Evaluation Plan:**

1. In order to assure the timely implementation of project activities, during the first month of the project, the timeline of activities was extended to include specific objectives under each major program activity and target dates for each activity were established. Project staff met on a bi-weekly basis to provide on-going evaluation of the project’s progress in meeting its objectives.

2. The Project Director attended monthly Great Start meetings. Subject recruitment and data management were coordinated at these meetings.

3. Survey results were checked for completeness and attempts were made to gather missing data. Printouts were screened to verify accuracy of the entered data.
4. Project results were to be disseminated to other practitioners and researchers by publishing articles in scientific journals and through presentations at national, state, and local conferences. Project results were also to be disseminated at the required Project Director’s Conference in Washington DC. Although the principal investigator and project director attended the Project Director’s Conference, there was not enough data collected at that point for a poster presentation. However, as indicated earlier, submission of an article for publication in a scientific journal, as well as the submission of proposals for presentations at national, state, and local conferences are planned for this spring.

**Description of Study Participants:**

Data were collected from 83 participants, 62 of which were child care teachers and 21 of which were center directors. The average age of the study participants was 34 (SD = 12). Other demographic characteristics of participants are given in Table 1.
Table 1

Demographic characteristics of study participants

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>81</td>
<td>98</td>
</tr>
<tr>
<td>Male</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Ethnicity</td>
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<td></td>
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<tr>
<td>African-American</td>
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</tr>
<tr>
<td>Caucasian</td>
<td>31</td>
<td>37</td>
</tr>
<tr>
<td>Native American/Alaskan Native</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below High School</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>High School Graduate/G.E.D.</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>Some College</td>
<td>23</td>
<td>28</td>
</tr>
<tr>
<td>Two Year Degree</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Four Year Degree</td>
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<td>18</td>
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<tr>
<td>Some Graduate School</td>
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<td>9</td>
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<tr>
<td>Graduate School</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: n = 83.

In addition, 36% had a family member with a disability, and 54% had worked with children with disabilities. Many participants also reported having prior training regarding working with special populations such as children who had been substance exposed (19%),
Examining Child Care Providers’ Attitudes

children with Down syndrome (25%), and children with chronic illness (23%). Data describing the work-related characteristics of the participants is given in Table 2.

Table 2

<table>
<thead>
<tr>
<th>Work-related characteristics of study participants</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of experience in child care</td>
<td>6.4</td>
<td>6.1</td>
</tr>
<tr>
<td>Hours per week spent working with children</td>
<td>36.9</td>
<td>13.4</td>
</tr>
<tr>
<td>Hours per week spent working with families</td>
<td>16.1</td>
<td>16.7</td>
</tr>
<tr>
<td>Hours per week spent working with children with disabilities</td>
<td>7.3</td>
<td>14.1</td>
</tr>
</tbody>
</table>

Note: n = 83.

Findings:

Psychometric Properties of Scales:

Reliabilities for the three subscales (children exposed to substances, children with Down syndrome, and children with chronic illness) of the Attitudes Toward Special Populations Survey ranged from .70 to .79. Reliabilities for the Self-Perceived Knowledge and Skills survey were .89 for knowledge and .94 for skills. Scale reliabilities were estimated using Cronbach’s alpha (Crocker & Algina, 1986).

Child Care Provider Attitudes:

Results indicated that child care providers’ attitudes toward children who had been substance exposed were poorer than toward children with Down syndrome (t = 6.24, p < .05), but
were not significantly different from attitudes toward children with chronic illness (t = .53, p > .05).

**Effect of Prior Training:**

Participants who had received prior training in working with children who are chronically ill had better attitudes toward chronically ill children than those who had received no training (t = 1.75, p < .05). Participants who had received prior training in working with children who had been substance exposed had poorer attitudes toward these children than those who had not received training (t = 2.14, p < .05). Those who had received prior training in working with children with Down syndrome did not have significantly different attitudes toward these children than those who had not received previous training (t = .43, p > .05).

**Effect of Knowledge, Skill, and Experience:**

The child care providers' self-perceived level of knowledge regarding working with children exposed to substances had no relationship with attitude scores (Table 3). The child care providers' self-perceived level of skill regarding working with children exposed to substances also had no relationship with attitude scores (Table 3). Child care providers' years of experience had no relationship with attitudes toward any of the three special populations, nor with level of self-perceived knowledge or skills (Table 3). The only significant correlations were between the attitude subscales and between self-perceived level of skill regarding working with children exposed to substances and self-perceived level of knowledge regarding working with children exposed to substances.
Table 3

Pearson correlations between attitude scores, knowledge and skills, and years of experience

<table>
<thead>
<tr>
<th></th>
<th>SE Attitude Score</th>
<th>CI Attitude Score</th>
<th>DS Attitude Score</th>
<th>SE Knowledge</th>
<th>SE Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>CI Attitude Score</td>
<td>.47*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DS Attitude Score</td>
<td></td>
<td>.61*</td>
<td>.58*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE Knowledge</td>
<td>.19</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE Skill</td>
<td>.10</td>
<td>---</td>
<td>---</td>
<td>.88*</td>
<td></td>
</tr>
<tr>
<td>Years Experience</td>
<td>-.02</td>
<td>-.05</td>
<td>.07</td>
<td>.21</td>
<td>.17</td>
</tr>
</tbody>
</table>

*p - p < .05.

Limitations:

Although the Attitudes Toward Special Populations Survey showed good reliability, the psychometric properties need to be further investigated. One of the limitations of the present study was the fact that there were not enough participants to conduct a factor analysis on the attitude survey. Future studies should be conducted to further examine the structure of the survey and to strengthen its validity.

A second limitation was the inability to compare knowledge and skills scores to other data sets which have utilized this form. This inability was due to the fact that the directions and some of the items had to be altered for the population currently being studied.

Implications:

Overall knowledge and skills scores showed that child care providers felt they did not have the optimal level of knowledge and skills necessary to successfully work with children who
have been substance exposed and their families. More communication of the state of the art regarding working with these children and their families needs to be incorporated into child care training activities.

The finding showed that attitudes toward children who have been substance exposed appeared to be different than attitudes toward children with Down syndrome. This variability needs to be further investigated, and if consistent differences appear in future research, the potential causes for this variability should be examined.

The lack of a significant relationship between attitudes and knowledge and skills might imply that these two areas should be treated as separate entities and interventions designed to increase child care providers' ability to work effectively with these children and their families should focus on both increasing knowledge and skills and creating more positive attitudes. Future training activities might play an important role in this respect.
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