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Getting the Most Out of Pediatric Screenings

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Abstract

**Purpose:** The purpose of this study was to compare the results of the Ages and Stages Questionnaire to the Survey of Well-Being of Young Children to determine if they produced the same outcomes. The Survey of Well-Being of Young Children offers additional screening tools that address risk factors for child abuse, that the Ages and Stages does not include. This project also surveyed the caregivers completing the questionnaires to determine which questionnaire they found more beneficial.

**Background and Significance:** In the United States, approximately 15% of children ages 3 to 17 years of age have at least one developmental disability. When the disabilities are identified early, and interventions are implemented, problems associated with the disability can be decreased. In recent years, the number of children that suffer from child abuse has increased tremendously. In 2011, the Centers for Disease Control and Prevention estimated that 681,000 children were the victims of child abuse or neglect. When risk factors associated with an increase in child abuse are identified, the risk of child abuse decreases.

**Procedures:** This study examined the results of the Ages and Stages Questionnaire and the Survey of Well-Being of Young Children that were completed by 30 caregivers in a pediatric primary care practice.

**Results:** There was no significant difference between the Ages and Stages Questionnaire and the Survey of Well-Being of Young Children (p>0.9). The majority of the caregivers completing the questionnaires preferred the Survey of Well-Being of Young Children (83.3%) compared to the Ages and Stages (16.7%).
Conclusion: By using the Survey of Well-Being of Young Children, not only will developmental delays be properly identified, but also risk factors that are associated with an increased risk of child abuse or neglect.
Evaluation of Getting the Most Out of Pediatric Screenings

**Background & Significance**

Developmental delays have been, and remain a major concern for all children. In the United States, approximately 15% of children ages 3-17 years have at least one developmental disability or behavior disability such as Autism, intellectual disability, or attention deficit/hyperactive disorder (ADHD) (Rice et al., 2014). According to the American Academy of Pediatrics (AAP), early interventions addressing these developmental delays can reduce problems associated with them (2012). Developmental delays are commonly identified by a screening tool administered by a pediatric provider. The AAP recommends well-child preventative care visits every few months throughout the first three years of a child’s life, and then yearly. The AAP recommends pediatric providers screen for developmental delays at every well-child visit, and offer a formal, validated tool at the 9, 18, and 30-month visit, or when a parent expresses concerns (American Academy of Pediatrics, 2017). An example of the success related to these screening tools is the increase of 120% in the identification of children with Autism Spectrum Disorder in the United States from 2002 to 2010 (CDC, 2011).

In recent years, there have been an increased number of children affected by child abuse or neglect. In 2011, the Centers for Disease Control and Prevention (CDC) estimated that 681,000 children were the victims of abuse or neglect (2014). Of those children, 1,570 died as a result of their injuries (CDC, 2014). Survivors of child abuse experience short-term and long-term effects such as learning disabilities, brain disorders, anxiety, substance abuse, and an increased risk of heart disease, liver disease, and cancer (CDC, 2014). It is estimated that the cost of helping these victims over their lifetime is
over 124 billion dollars, a cost that is greater than treating other health related issues such as stroke and diabetes (CDC, 2014). Studies have shown that there are specific risk factors and triggers that can cause an increased risk of child abuse or neglect. These include poverty, low social support, history of child abuse or neglect within the family, substance abuse, lack of education, and a history of mental illness (Huebner, 2002). Specific triggers include lack of knowledge related to parenting techniques, parental impulsivity, stigma related to asking for help, inadequate social support, and inappropriate expectations for a child’s development (Poole, Seal, & Taylor, 2014).

According to Stanger and Lansing (2009), primary prevention aims to prevent any new cases of child abuse, and should be the first goal in child abuse and neglect prevention. Due to the unique relationship pediatric providers have with their patients and their caregivers, they are in the position to screen for these risk factors and triggers related to an increased risk of child abuse or neglect. The frequency of well child visits in the primary care setting is the ideal setting to screen for developmental delays and risk factors including child abuse or neglect. Because these preventative exams are already filled with important tasks such as physical exams, education, developmental delay screenings, and additional resources, it would be most beneficial to use one screening tool for the caregivers to complete that screens for developmental delays and also for risk factors and triggers related to child abuse or neglect.

**Purpose**

*Getting the Most Out of Pediatric Screenings* is a project that compares a developmental screening: The Ages and Stages Questionnaire (ASQ) tool and The Survey of Well-Being of Young Children (SWYC). The ASQ is for children ages one
month to five and a half years of age. The tool evaluates five developmental areas including communication, gross motor, fine motor, problem solving, and personal-social interaction. The questionnaire takes approximately 10 to 15 minutes for the caregiver to complete. The sensitivity is 0.86 and the specificity is 0.85. These results are based on a study that included 18,232 questionnaires completed by parents. A sample of the six-month questionnaire for the ASQ is found in appendix A.

The SWYC was created in 2010 and is approved by MassHealth in compliance with the Children’s Behavioral Health Initiative screening guidelines (The Survey of Well-Being of Young Children, 2017). The SWYC tool is for children ages one month to five years of age. The tool includes three parts to evaluate a child’s developmental skills including cognitive, language, and motor development; social and emotional development; and family risk factors including parental depression, substance abuse, and hunger (The Survey of Well-Being of Young Children, 2017). For the ages of 15 months to 36 months there is an Autism screening. The questionnaire takes approximately 15 minutes for the caregiver to complete. The questionnaire compares statistically to other developmental questionnaires, including the ASQ (The Survey of Well-Being of Young Children, 2017). The components of the SWYC are in figure 2. A sample of the six month questionnaire for the SWYC is found in appendix B.

The purpose of this study was to compare the developmental screening results from the Ages and Stages Questionnaire to the Survey of Well-Being of Young Children. The aims of this study were to examine:

- Caregiver preference regarding the ease of completing the tool.
- Determine whether the two questionnaires yield the same results.
Identify if risk factors for child maltreatment were properly identified.

Methods

Program Description

This was a quality improvement study to determine if one questionnaire produced the same results as the other, and if the caregivers had a preference as to which survey they found most beneficial. Once consent was obtained from the caregiver to participate in the study, the caregiver completed the Ages and Stages questionnaire, the Survey of Well-Being of Young Children, and a post-questionnaire survey as to which one they found most beneficial. The questionnaires were placed in an envelope and sealed by the participant, and then returned to the lead investigator. Studies were reviewed by the lead investigator, and any screening that revealed a higher risk of developmental delays or social concerns were made available to the office provider. Referrals were made, and adequate follow-up care was done by placing notes in the patient’s chart, and discussions with the caregivers. The proposed sample size for this study was 30 caregivers to complete the assessments about their child.

Sample

Caregivers of 30 children ages 6 months to 5 years who were in the pediatrician’s office for a well-child preventative visit between October 18, 2017 and October 23, 2017 completed each instrument as well as the satisfaction survey. Inclusion criteria included participants being able to speak and read in English. Exclusion criteria included being in the office for reason other than well-child check. Ethnicity, age, and gender varied depending on the appointments by the office staff.
Study Design

This is a cross-sectional, correlation study that compares the results from the ASQ and the SWYC that were completed by the caregiver. Medical records were obtained to determine the child’s age, gender, and ethnicity.

Measures

The patient’s demographics, including their race, gender, and age, were obtained from the office records. The information was verified by the lead investigator with the caregiver. Each questionnaire was scored by the lead investigator. The scoring algorithm for the ASQ is found in appendix C, and the scoring algorithm for the SWYC is found in appendix D.

Data Analysis

Descriptive statistics including means and standard deviations or frequency distributions were used to summarize the patient’s demographics. Frequency distributions were used to summarize the post-questionnaire survey items. McNemar’s test was used to determine whether the results of the two questionnaires differed. Since each child had a score for each instrument (positive/negative), McNemar’s test was appropriate to test for an association between binary, paired data. All data analysis was conducted with IBM SPSS Statistics, version 23, with an alpha level of .05 throughout.

Results

The demographic characteristics of the sample are summarized in Table 1. The sample was predominantly male (53.4%), Caucasian (53.4%) and were the age 15 months (16.6%). Five out of the 30 caregiver’s questionnaires produced discordant pairs. McNemar’s test showed no significant different in the results of the two questionnaires.
(p>.9). McNemar’s test results are shown in Table 2. The post-questionnaire survey results show the SWYC (83.3%) was preferred over the ASQ. The post-questionnaire survey results are shown in Figure 1.

**Discussion**

As demonstrated by the results of the data analysis, there was no significant difference between the ASQ and the SWYC questionnaires. Eighty three and three tenths percent of caregivers preferred completing the SWYC questionnaire compared to the ASQ. This quality improvement project shows that providers can be confident in using the SWYC in their practice. The questionnaire will not only screen for a child’s developmental skills, but also family risk factors including parental depression, substance abuse, and hunger, which could identify risk factors associated with an increased risk of child abuse or neglect.

**Limitations**

One limitation identified for this project was the relatively small sample size (n=30). By only having thirty caregivers complete the questionnaires, it is difficult to generalize that the two questionnaires will always create the same results. A second limitation to the study is the limited population. A more diverse population could be gathered by using more than one office. This could address more risk factors and triggers. Lastly, the post-questionnaire screening could be more detailed. There was no room for explanation as to why the caregiver preferred one questionnaire over the other.

**Implications of Nursing Practice and Research**

This project showed that the SWYC created equal results as the ASQ, and was also preferred by caregivers compared to the ASQ. The SWYC offers additional
information related to family risk factors, which could help the provider address other concerns that may have not be identified without the questionnaire.

Further studies should address if providers currently address family risk factors that are identified as risk factors associated with an increased risk of child abuse or neglect.

**Conclusion**

Developmental delays remain a major concern for children in the US. By identifying these delays at an early age, interventions can be implemented and problems associated with these delays can be decreased. Additionally, the number of child abuse and neglect cases have been on the rise in the US. When risk factors associated with an increased risk of child abuse or neglect are identified, resources and interventions can be completed to lower the risk.

This project shows that the SWYC yields the same results as the ASQ regarding a child’s developmental progress. The SWYC also screens for family risk factors, which could probe the opening for the provider to address and offer additional resources. The SWYC was preferred by caregivers compared to the ASQ, which shows that they are open to the discussion of social risk factors.
References


GETTING THE MOST OUT OF PEDIATRIC SCREENINGS


<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>16</td>
<td>53.4</td>
</tr>
<tr>
<td>Female</td>
<td>14</td>
<td>46.6</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>16</td>
<td>53.4</td>
</tr>
<tr>
<td>African American</td>
<td>14</td>
<td>46.6</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 months</td>
<td>2</td>
<td>6.6</td>
</tr>
<tr>
<td>9 months</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>12 months</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>15 months</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td>18 months</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>24 months</td>
<td>1</td>
<td>3.5</td>
</tr>
<tr>
<td>30 months</td>
<td>2</td>
<td>6.6</td>
</tr>
<tr>
<td>36 months</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>48 months</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>60 months</td>
<td>3</td>
<td>10</td>
</tr>
</tbody>
</table>
Table 2. McNemar’s Results

<table>
<thead>
<tr>
<th>ASQ</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>19</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>
Figure 1. Post-Questionnaire Survey Results
Figure 2. Parts of the Survey of Well-Being of Young Children
Appendix A

Ages and Stages Questionnaire

**COMMUNICATION**

1. Does your baby make high-pitched squeaks?
   - Yes
   - Sometimes
   - Not Yet

2. When playing with sounds, does your baby make grunting, growling, or other deep-toned sounds?
   - Yes
   - Sometimes
   - Not Yet

3. If you call your baby when you are out of sight, does she look in the direction of your voice?
   - Yes
   - Sometimes
   - Not Yet

4. When a loud noise occurs, does your baby turn to see where the sound came from?
   - Yes
   - Sometimes
   - Not Yet

5. Does your baby make sounds like “da,” “ga,” “ka,” and “ba”?
   - Yes
   - Sometimes
   - Not Yet

6. If you say the sounds your baby makes, does your baby repeat the same sounds back to you?
   - Yes
   - Sometimes
   - Not Yet

**GROSS MOTOR**

1. When your baby is on his back, does your baby lift his legs high enough to see his feet?
   - Yes
   - Sometimes
   - Not Yet

2. When your baby is on her tummy, does she straighten both arms and push her whole chest off the bed or floor?
   - Yes
   - Sometimes
   - Not Yet

3. Does your baby roll from his back to his tummy, getting both arms out from under him?
   - Yes
   - Sometimes
   - Not Yet

4. When you put your baby on the floor, does she lean on her hands while sitting? (If she already sits up straight without leaning on her arms, mark “yes” for this item.)
   - Yes
   - Sometimes
   - Not Yet
### GROSS MOTOR (continued)

5. If you hold both hands out to balance your baby, does he support his own weight while standing?

6. Does your baby get into a crawling position by getting up on his hands and knees?

### FINE MOTOR

1. Does your baby grab a toy you offer and look at it, wave it about, or chew on it for about 1 minute?

2. Does your baby reach for or grasp a toy using both hands at once?

3. Does your baby reach for a crumb or Cheerio and touch it with his finger or hand? (If he already picks up a small object the size of a pea, mark "yes" for this item.)

4. Does your baby pick up a small toy, holding it in the center of his hand with his fingers around it?

5. Does your baby try to pick up a crumb or Cheerio by using his thumb and all of his fingers in a rubbing motion, even if he isn't able to pick it up? (If he already picks up the crumb or Cheerio, mark "yes" for this item.)

6. Does your baby pick up a small toy with only one hand?

### PROBLEM SOLVING

1. When a toy is in front of your baby, does she reach for it with both hands?

2. When your baby is on his back, does he turn his head to look for a toy when he drops it? (If he already picks it up, mark "yes" for this item.)

3. When your baby is on her back, does she try to get a toy she has dropped if she can see it?
## PROBLEM SOLVING

4. Does your baby pick up a toy and put it in his mouth?  
   - [ ] Yes  
   - [ ] Somewhat  
   - [ ] Not Yet

5. Does your baby pass a toy back and forth from one hand to the other?  
   - [ ] Yes  
   - [ ] Somewhat  
   - [ ] Not Yet

6. Does your baby play by hanging a toy up and down on the floor or table?  
   - [ ] Yes  
   - [ ] Somewhat  
   - [ ] Not Yet

## PERSONAL-SOCIAL

1. When in front of a large mirror, does your baby smile or coo at himself?  
   - [ ] Yes  
   - [ ] Somewhat  
   - [ ] Not Yet

2. Does your baby act differently toward strangers than he does with you and other familiar people? (Examples are stranger may include staring, following, withdrawing, crying.)  
   - [ ] Yes  
   - [ ] Somewhat  
   - [ ] Not Yet

3. While lying on her back, does your baby play by grabbing her feet?  
   - [ ] Yes  
   - [ ] Somewhat  
   - [ ] Not Yet

4. When in front of a large mirror, does your baby reach out to pat the mirror?  
   - [ ] Yes  
   - [ ] Somewhat  
   - [ ] Not Yet

5. While your baby is on his back, does he put his hand in his mouth?  
   - [ ] Yes  
   - [ ] Somewhat  
   - [ ] Not Yet

6. Does your baby try to get a toy that is out of reach? (She may roll, pivot on her tummy, or crawl to get it.)  
   - [ ] Yes  
   - [ ] Somewhat  
   - [ ] Not Yet

---

**PERSONAL-SOCIAL TOTAL**
OVERALL

Parents and providers may use the space below for additional comments.

1. Does your baby use both hands and both legs equally well? If no, explain:

2. When you help your baby stand, are his feet flat on the surface most of the time? If no, explain:

3. Do you have concerns that your baby is too quiet or does not make sounds like other babies? If yes, explain:

4. Does either parent have a family history of childhood deafness or hearing impairment? If yes, explain:

5. Do you have concerns about your baby’s vision? If yes, explain:
6. Has your baby had any medical problems in the last several months? If yes, explain: □ YES □ NO

7. Do you have any concerns about your baby’s behavior? If yes, explain: □ YES □ NO

8. Does anything about your baby worry you? If yes, explain: □ YES □ NO
Appendix B

Survey of Well-Being of Young Children Questionnaire

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### SWYC: Survey of Well-Being of Young Children Questionnaire

#### 6 months

**DEVELOPMENTAL MILESTONES**

Please tell us how much your child is doing each of these things. If your child doesn’t do something any more, choose the answer that describes how much he or she used to do it. Please be sure to answer ALL the questions.

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Not Yet</th>
<th>Somewhat</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makes sounds like “ya,” “ma,” or “ba”</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Looks when you call his or her name</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Rolls over</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Passes a toy from one hand to the other</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Looks for you or another caregiver when upset</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Holds two objects and bangs them together</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Holds up arms to be picked up</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Gets into a sitting position by him or herself</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Picks up food and eats it</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Pulls up to standing</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>

#### BABY PEDIGREE SYMPTOM CHECKLIST (PSC)

These questions are about your child’s behavior. Think about what you would expect of other children the same age, and tell us how much each statement applies to your child.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Not at all</th>
<th>Somewhat</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does your child have a hard time being with new people?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Does your child have a hard time in new places?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Does your child have a hard time with change?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Does your child mind being held by other people?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Does your child cry a lot?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Does your child have a hard time calming down?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Is your child fussy or irritable?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Is it hard to comfort your child?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Is it hard to keep your child on a schedule or routine?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Is it hard to put your child to sleep?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Is it hard to get enough sleep because of your child?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Does your child have trouble staying asleep?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>

---

********** Please continue on the back **********
### Getting the Most Out of Pediatric Screenings

**Parent's Concerns**

<table>
<thead>
<tr>
<th>Concern</th>
<th>Not At All</th>
<th>Somewhat</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have any concerns about your child's learning or development?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have any concerns about your child's behavior?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Family Questions**

Because family members can have a big impact on your child's development, please answer a few questions about your family below:

1. Does anyone smoke tobacco at home?  
2. In the last year, have you ever drunk alcohol or used drugs more than you meant to?  
3. Have you felt worried or needed to cut down on your drinking or drug use in the last year?  
4. Has a family member's drinking or drug use ever had a bad effect on your child?  
5. In the past month was there any day when you or anyone in your family went hungry because you did not have enough money for food?  

Over the past two weeks, how often have you been bothered by any of the following problems?

<table>
<thead>
<tr>
<th>Problem</th>
<th>Not at all</th>
<th>Several days</th>
<th>More than half the days</th>
<th>Nearly every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Having little interest or pleasure in doing things?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Feeling down, depressed, or hopeless?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In general, how would you describe your relationship with your spouse/partner?

<table>
<thead>
<tr>
<th>Description</th>
<th>No tension</th>
<th>Some tension</th>
<th>A lot of tension</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Do you and your partner work out arguments with:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

22
Appendix C

Ages and Stages Scoring Algorithm

Ages and Stages Scoring Algorithm

6 Month ASQ-3 Information Summary

- Communication
- Fine Motor
- Gross Motor
- Personal-Social

Score and Transfer Totals to Chart Below: See ASQ-3 User's Guide for details, including how to adjust scores if item responses are missing. Score each item 1 = YES, 0 = NO, 3 = NOT YET. Add item scores, and record each area total. In the chart below, transfer the total scores, and fill in the circles corresponding with the total scores.

1. Concerns about vision?
   YES No
2. Feet are flat on the surface most of the time?
   YES No
3. Concerns about hearing impairment?
   YES No
4. Concerns about behavior?
   YES No
5. Concerns about vision?
   YES No
6. Concerns about hearing impairment?
   YES No
7. Concerns about behavior?
   YES No

3. ASQ Score Interpretation and Recommendation for Follow-up: You must consider total area scores, overall responses, and other considerations, such as opportunities to practice skills, to determine appropriate follow-up.

   If the baby's total score is in the 3rd area, it is above the cutoff, and the baby's development appears to be on schedule. If the baby's total score is in the 1st area, it is close to the cutoff; provide learning activities and monitor. If the baby's total score is in the 2nd area, it is below the cutoff. Further assessment with a professional may be needed.

4. Follow-up Action Taken: Check all that apply.
   - Provide activities and exercises to months.
   - Share results with primary health care provider.
   - Refer for early intervention/early childhood special education.
   - Other (specify):

5. Optional: Transfer item responses (Y = YES, S = SOMETIMES, N = NOT YET, X = response missing).

   Communication
   Fine Motor
   Gross Motor
   Personal-Social
   Problem Solving

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Appendix D  
Survey of Well-Being of Young Children Scoring Algorithm

<table>
<thead>
<tr>
<th>Score</th>
<th>Age [mo]</th>
<th>Needs Review</th>
<th>Appears to Meet Age Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
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</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

1 We will attempt to correct this difficulty in future revisions of the Milestones. Please see section 50 of the manual on “Future Research” for more detail.

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Baby Pediatric Symptom Checklist (BPSC)

Scoring Directions, 12/14/15

1. The BPSC is divided into three subscales, each with 4 items. Determine the BPSC subscale scores by assigning a “0” for each “Not at All” response, a “1” for each “Somewhat” response, and a “2” for each “Very Much” response, and then sum the results.
   a. In the event that parents have selected multiple responses for a single question and are unavailable for further questioning, then choose the more concerning answer (i.e. “Somewhat” or “Very Much”) farthest to the right.
   b. In the event that there is a missing response, that item counts as zero.

2. Any summed score of 3 or more on any of the three subscales indicates that a child is “at risk” and needs further evaluation or investigation.
Family Questions

Scoring Directions 12/14/15

Positive endorsement of items on this list indicates that a child should be monitored further. If after reviewing the Family Questions, a PPCP believes a child or family member may be at immediate risk of harm, appropriate steps should be taken to refer the child and/or family to the appropriate child protection agency for help as soon as possible.

1. **Question 1:** We incorporated a single-item screen for tobacco use, "Does anyone smoke tobacco at home?" This "yes" or "no" response question has been found to be a valid way to screen for tobacco use among parents in pediatric practice.  

2. **Questions 2, 3, and 4:** At least one positive response on the Two-Item Conjoint Screener (TICS) has been found to detect substance abuse disorders with adequate sensitivity and specificity (nearly 80% or higher). In addition, we have included an additional question: "Has a family member's drinking or drug use ever had a negative effect on your child?"

3. **Question 5:** We have incorporated one question based on Kleinman and colleagues' (2007) single-question screening tool, in a study of 1,705 families, this question identified food-insecure families with 83% sensitivity and 80% specificity.  

4. **Questions 6 and 7:** Parental depression is assessed by the Patient Health Questionnaire-8 (PHQ-8). Answers are scored such that "Not at All" is given a "0", "Several Days" is given a "1", "More than Half the Days" is given a "2", and "Nearly Every Day" is given a "3." If the total score on both questions sums to 3 or greater, the remaining questions of the Patient Health Questionnaire-8 (PHQ-8), a well-validated criterion-based measure for diagnosing depression and evaluating symptom severity, could be administered where available resources exist.

5. **Questions 8 and 9:** These questions deal with domestic violence. The short version of the Women Abuse Screening Tool (WAST-Short) is considered positive if the most extreme choices, "A Lot of Tension" for question 8 and "Great Difficulty" for question 9, is endorsed on one or both of the items.

6. **Parent's Concerns:** These two questions ask whether parent(s) have any additional concerns about their child's behavior, learning, or development. These questions were adapted from Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents and have no formal recommended scoring template. If a parent endorses being "Somewhat" or "Very Much" concerned about his or her child on either of the two.

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1 Please see the American Academy of Pediatrics’ SCIPP module, "Eliminating tobacco use and exposure to secondhand smoke" at: [http://scipp.aap.org/](http://scipp.aap.org/)
Parent's concern questions, pediatricians should use this as an opportunity for additional conversation.


