ABCD II Health Beginnings Pilot Community Evaluation Report – Baseline Data

July 2005

Introduction

Illinois ABCD II

The Illinois *Healthy Beginnings* project (ABCD II) is designed to meet the unmet mental health needs of young children in Illinois. ABCD II seeks to increase the healthy mental development of young children by promoting universal, early screening for social/emotional (SE) development. To achieve this goal, the initiative will seek to build the social/emotional health capacities of pediatricians and family physicians. Specifically, this will include training doctors and their staff on healthy social/emotional development and the use of standardized screening tools; and increasing their access to and knowledge of appropriate materials and resources within the local community (including referral options). Since a child's mental health is intimately connected with the mental health of their mother, this project will also seek to promote the mental health of infants' mothers by having pediatricians and family physicians screen mothers for maternal depression and refer them (as appropriate) for further services.

ABCD II project leaders have engaged three communities in Illinois to serve as pilot communities. These pilot communities will be the first in the state to receive training and implement the ABCD II project. The first ABCD II community is located in Chicago. Erie Family Health Center's Humboldt Park location serves a primarily Hispanic area. The second pilot community is Kane County, located in suburban Chicago. Kane County has two participating sites: Rush-Copley Family Practice Residency and Dr. Sanchez, an independent practitioner. A third, site, Aunt Martha's, a Federally Qualified Health Center (FQHC) in Kane County, will likely be joining the ABCD II project as well. The third pilot community is Macon County in Decatur, Illinois. Participating sites from Macon County includes a FQHC and three independent practitioners, two of whom also work at the FQHC.

ABCD II Core Components and Evaluation Activities

A key component of the ABCD II project is to train doctors, nurses and other practice staff on social and emotional (SE) development of young children and maternal depression (MD) among mothers with young children. In preparation for better meeting the needs of each pilot site at the trainings, a representative from each site was asked to complete a practice needs assessment. The practice needs assessment gathered information about the practice, its staff and number of children served. The needs assessment also asked about current policies and practices regarding SE and MD issues. In May and June 2005, ABCD II pilot communities received training on social and emotional (SE) development of young children and maternal depression (MD) from the Illinois Chapter of the American Academy of Pediatrics (ICAAP).

In order to examine the immediate effect of the training, as well as the more long-term effects of participating in the ABCD II project, training participants were asked to complete two surveys. In the first survey, training participants were asked to answer ten true-false questions about topics related to SE and MD (five questions on each topic). Participants answered these questions before and after training. For the second survey, training participants were asked to complete a SE/MD questionnaire. The questionnaire asked each respondent about current practices, level of preparedness to address SE and MD concerns, and knowledge and comfort/skill with SE/MD issues.

Each pilot site is also regularly documenting their practices of screening young children for SE development and mothers for MD (and the outcomes of those screenings). No data are yet available for this aspect of the evaluation.

Results

Practice Needs Assessments

We received completed practice needs assessment from all but one participating site (this site is likely to implement the ABCD II project later than other sites). Results provide insight into the nature of the practices participating in pilot sites prior to their implementation of the ABCD II project.

Nature of Practice

Type of setting

Two-thirds of participating practices are solo providers. The remaining are from a clinic/hospital (17%) or residency training program (17%).

Type of Specialty

One-half of participating sites practice family medicine, 33% are pediatric practices, and 17% practice both in pediatrics and family medicine.

Size of practice – staff

Together, participating sites employ 29 physicians, 3 nurse practitioners, and 8 nurses.

Size of practice – clients

On average, participating practices see approximately 49 children between the ages of 0 and 3 per week (range: 15-104) and 188 per month (range: 55-370).

Cliental – language

For one-half of the practices, nearly all of their clients speak English. For one-third of the practices, 90% of their clients speak Spanish. The final practice has a more mixed-language cliental base: 65% are English speaking and 30% are Spanish speaking.

Practice systems

Policies

Prior to implementing the ABCD II project, none of the practices had written policies for screening all children for developmental or social/emotional delays, nor for screening mothers of children under one for maternal depression. Two-thirds did have unwritten or verbal polices for each of these activities. The remaining one-third had no policy at all.

Screening – availability of tools.

When asked whether their office had the ASQ, ASQ:SE, PEDS, CHAT, Edinburgh, BDI or PRIME-MD/PHQ, only one practice reported having the ASQ. A second practice reported having the BDI.

Screening – communication of results and general education

All practices reported that physicians themselves share the result of any screening with their patients. One site also has nurse practitioners communicate results and a second has CMA/CNAs do so. With respect to providing general patient/parent education on developmental issues, all practices report that physicians also do this. One practice each indicated that a registered nurse, nurse practitioner, or CMA/CAN shared these results with patients.

Child development referrals – use of

All but one practice reported referring children under three to the local Part C referral agency Child & Family Connections (CFCs) for further evaluation of developmental delay or disability. Of these practices, one also refers children to a medical/hospital program. The practice that does not refer young children to their CFC, refers instead to a medical/hospital program and/or a private provider.

Child development referrals – practice

In one-half of practices, physicians themselves make referrals for young children. In two practices (33%), the nurse makes the actual referral. In one of these practices, secretarial staff also makes referrals; in the other, parents are given information about the resource. In the third practice, CMA/CNAs make the referral.

Child development referrals – difficulties

Two practices reported sometimes having difficulties in screening, referring or talking to parents about their child's development. These difficulties include parents' resistance or not liking to hear about the child's difficulties and Medicaid compliance.

Child development referrals – barriers

All practices noted that a lack of time was a barrier they encounter around conducting developmental screenings and referrals. All but one practice also noted that a lack of sufficient training in conducting screening and referrals and lack of staff to conduct screenings were additional barriers they faced. One-half of practices reported that inadequate reimbursement was also a barrier. Finally, one-third of practices reported that lack of parent acceptance of the delay was a barrier.

Maternal depression – referrals

When maternal depression is suspected, two-thirds of participating practices refer the mother to her primary care physician. One-half of mothers are treated at the same clinic or office as their young child. Only one practice refers mothers to a medical/hospital program.

Maternal depression – materials for mothers

Two practices reported having materials about maternal depression for parents.

Preparation for conversation on SE and MD

On a scale of 1-5 where 5 indicates “very prepared”, practice representatives reported a mean level of 3.33 for how prepared their practice clinicians and staff are to talk to families about SE concerns. With respect to how prepared they are to talk to families about MD concerns, practice representatives reported a mean of 3.17.

Needs Assessment Results Summary

Data collected from representatives of participating pilot sites suggest a strong need for the ABCD II project. None of the participating practices have written policies for routine screening for SE development or MD, only two-thirds have unwritten policies for these practices. While practices may be using clinical judgment and/or checklists to screen for these issues, they are not using standardized tools. In fact, most practices do not have these tools available to them on-site. Practice representatives reported barriers linked to inadequate time to conduct screenings, inadequate training on conducting screenings and making referrals, and parents who resist hearing that their child may have a developmental delay. The ABCD II project may be able to build the capacity of the practice to positively address their clients’ mental health needs by educating and supporting doctors, nurses and other office staff on these issues.

Knowledge Surveys

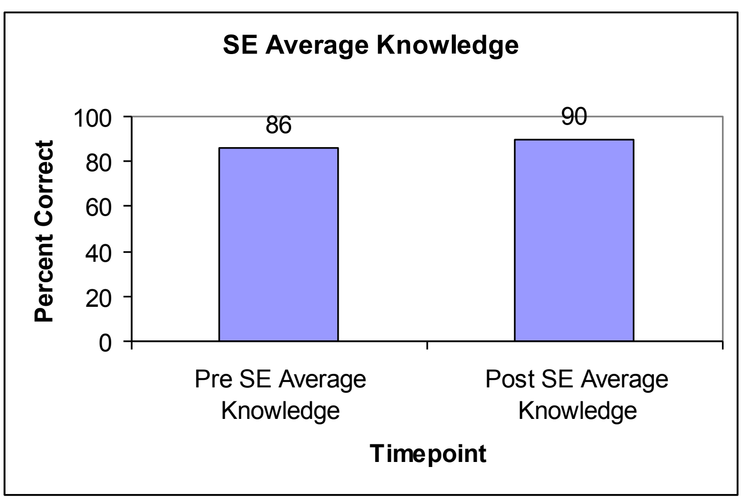
Training participants were asked to complete five true or false questions about SE concerns, screening and referrals and five true or false questions about MD concerns, screening and referrals. Fifty-nine training participants completed the questions on SE concerns and 53 completed the questions on MD concerns. Not all surveys had complete data (i.e., some respondents skipped some questions) resulting in fewer surveys being included in subsequent analyses. We did not ask respondents to note their role within pediatric care, therefore results reflect the average knowledge of all professionals in attendance who completed a knowledge survey.

Knowledge about Young Children's Social/Emotional (SE) Development

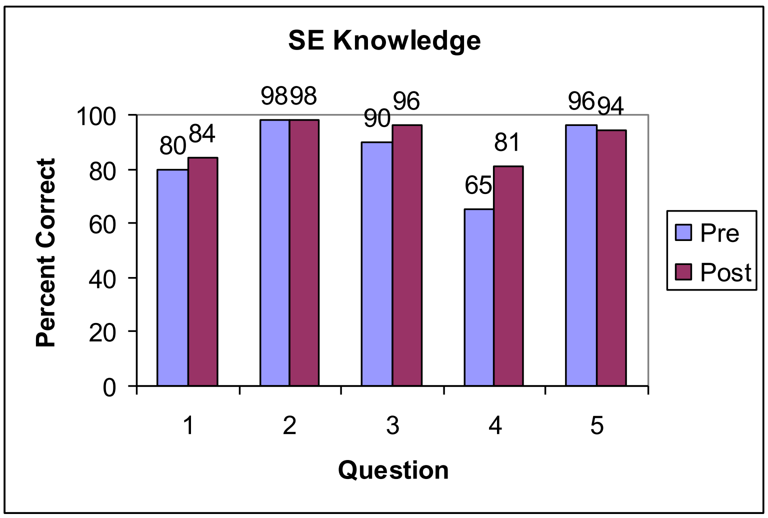
The five true-false questions about SE development, screening and referral include:

1. If a child's score falls on, or just above, the designated cutoff score on the Ages and Stages Questionnaire: Social/Emotional (ASQ: SE), a referral for additional assessment is not necessary. (False)
2. A provider must consider a parent's perspective when assessing a child's behavior. (True)
3. The Illinois Department of Public Aid (IDPA) will reimburse providers for the use of the ASQ:SE screening tool if the child receives KidCare (Medicaid). (True)
4. Parents generally give accurate and quality information about their child's development and behavior. (True)
5. Only parents can make a referral call to Child & Family Connections. (False)

In order to examine whether training participants acquired knowledge about SE development, screening and referral as a result of the training, we created an average score for each participant (the score represents the total percent correct) and compared respondents' scores from before and after the training. Prior to training, participants averaged 86% correct; after the training participants averaged 90% correct. While the change from before to after training is in the expected direction (i.e., participants demonstrate a higher average knowledge score post training), the difference from pre- to post-training is not statistically significant, $t(35) = -1.784$, $p > 0.05$.



We also examined the percent of training participants responding correctly to individual questions in order to gain a more thorough understanding of participants' knowledge pre- and post-training. On questions 2 (*A provider must consider a parent's perspective when assessing a child's behavior -- true*), 3 (*The Illinois Department of Public Aid (IDPA) will reimburse providers for the use of the ASQ:SE screening tool if the child receives -- true*), and 5 (*Only parents can make a referral call to Child & Family Connections -- false*) participant either started out with near perfect knowledge or achieved such levels subsequent to participating in the training. Only 80% pre- and 84% post-training knew the correct answer to question 1 (*If a child's score falls on, or just above, the designated cutoff score on the Ages and Stages Questionnaire: Social/Emotional (ASQ: SE*), *a referral for additional assessment is not necessary -- false*). Entering the training only 65% knew the correct answer to question 4 (*Parents generally give accurate and quality information about their child's development and behavior -- true*), after the training 81% of respondents answered this correctly. This question was the only knowledge item that showed a statistically significant gain from pre- to post-training (McNemar p = 0.039).



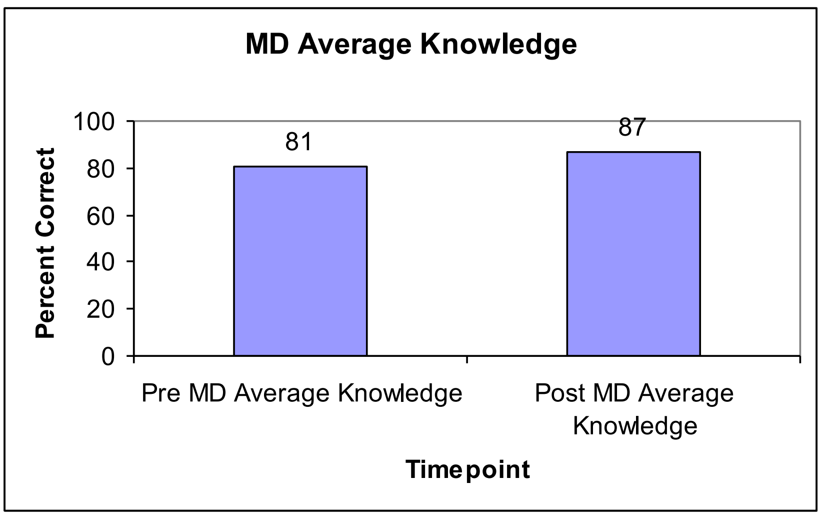
Note: Item 4 demonstrated a statically significant difference from pre- to post-training.

Knowledge about Maternal Depression

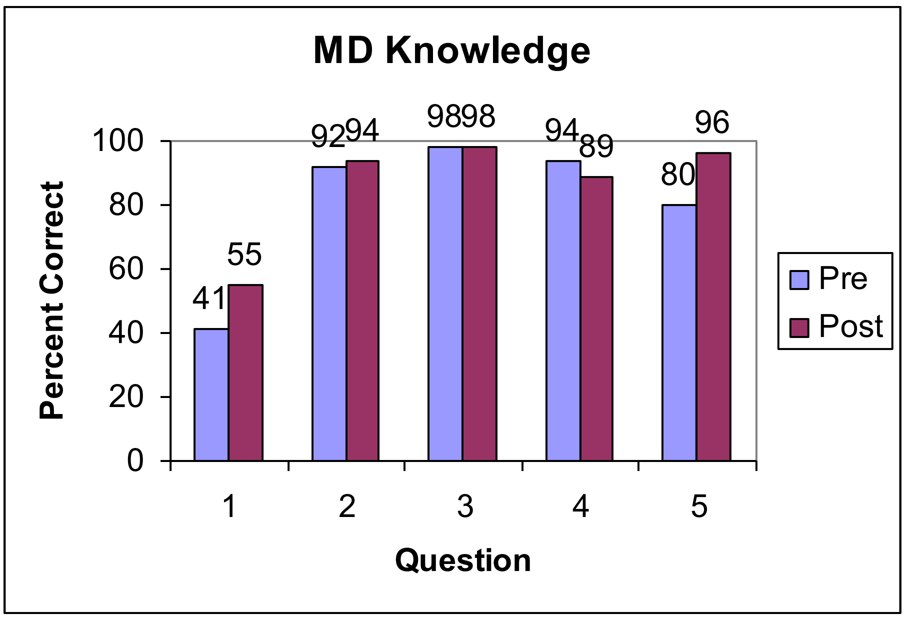
The five true-false questions about MD development include:

1. About 10% of new mothers will experience the "Baby Blues." (False)
2. About 50-80% of new mothers will experience postpartum psychosis. (False)
3. Maternal depression can begin during pregnancy. (True)
4. If a new mother does not show any risk factors for depression, you do not need to take time to do a screening with her. (False)
5. The Edinburgh Postnatal Depression Scale can only be offered to mothers following the baby's birth. (False)

In order to examine whether training participants acquired knowledge about MD issues as a result of the training, we created an average score for each participant (the score represents the total percent correct) and compared respondents' scores from before and after the training. Prior to training, participants averaged 81% correct; after the training participants averaged 87% correct. This change is in the expected direction (i.e., participants had a higher average knowledge score post training) and the difference from pre- to post-training is statistically significant, $t(40) = -3.78$, $p < 0.05$.



We also examined the percent of training participants responding correctly to individual questions in order to gain a more thorough understanding of participants' knowledge pre- and post-training. Before training, participants had near perfect knowledge of question 3 (*Maternal depression can begin during pregnancy – true),* recognizing that maternal depression can have onset before the child's birth. Respondents were also highly familiar with the correct answer to question 2 (*About 50-80% of new mothers will experience postpartum psychosis – false*), recognizing that far fewer mothers experience postpartum psychosis. While only 80% pre-training knew the correct response to question 5 (*The Edinburgh Postnatal Depression Scale can only be offered to mothers following the baby's birth – false*), by the end of the training, 96% of respondents knew that the Edinburgh could also be used during pregnancies. This was the only MD knowledge item to demonstrate a statistically significant change from pre- to post-training (McNemar p = 0.008). A high number of respondents pre-training (94%) were aware of the correct response to question 4 (*If a new mother does not show any risk factors for depression, you do not need to take time to do a screening with her – false*), this number dropped off somewhat post-training (89%). It is not clear why. The question that respondents were least familiar with was question 1 (*About 10% of new mothers will experience the "Baby Blues" -- false*), perhaps not realizing that many more mothers have this experience. Only 41% got this question correct pre-training; this number increased to 55% post-training. Training participants may have confused the rates of "Baby Blues" with those of postpartum depression.



Note: Item 5 demonstrated a statically significant difference from pre- to post-training.

Knowledge Survey Results Summary

Training participants from ABCD II pilot communities entered the training already familiar with many topics related to SE development, screening and referral and MD incident rates and screening. Before the training, they answered correctly to more than 80% of the questions. Results suggest that training participants were slightly more familiar with topics linked to SE development, screening and referral than to those linked to MD incident rates and screening. The training was able to effectively teach participants about some of these topics.

SE/MD Surveys

A total of sixty training participants completed the SE/MD questionnaire. Of these, thirty-seven were physicians, residents or nurses. Only results from these thirty-seven training participants who will be directly implementing the ABCD II project are presented here. Included in these analyses are the responses of twenty-one physicians, eight nurse practitioners, and eight nurses. On average, respondents had been acting in their role for slightly more than seven years.

How prepared are you and your practice to address SE and MD concerns?

Training participants were asked to rate how prepared they and their practice are to address SE and MD concerns (on a scale of 1-5 where 5 indicates higher levels of preparedness). On average, participants rated themselves as more prepared than their practice. This difference is not statistically different, $F(29) = 2.34$, $p > 0.05$, However, statistical power, the ability to detect a difference if it exists, was low (53%).

How prepared are/is:	Mean
you to address the social/emotional needs of children under three?	3.09
you are address the mental health needs of mothers with new babies under one?	3.25
your practice to address the social/emotional needs of children under three?	3.00
your practice to address the mental health needs of mothers with new babies under one?	2.88

Social Emotional Practices

Respondents were asked about many of their current practices around the social/emotional development of their patients under three.

Method of Screening for SE Development

The majority (68%) of training participants rely on their clinical judgment to screen the SE development of children under three. Only 22% use a standardized screening tool.

Do you do any of the following to screen the social/emotional development of children 0-3?	Percent Responding Yes
Monitor development/clinical judgment	68%
Use a questionnaire/checklist (non-standardized)	24%
Use a standardized tool	22%
Other (talk to mom)	3%

Do not conduct S/E screenings	3%

Periodicity of Screening for SE Development

Most practitioners (70%) screen a child's SE development at every well-baby visit. One-fourth (24%) screen a child's SE development when there is a concern. Only 3% of practitioners do not conduct SE screenings.

When do you screen the social/emotional development of children 0-3?	Percent Responding Yes
At every well-baby visit	70%
When there is a concern	24%
Other (every 4-6 months)	3%
Do not conduct S/E screenings	3%

Action Proceeding Failed Screening for SE Development

Whenever a child does not pass a SE screening, 68% of practitioners make an external referral (46% to the CFC). Sixty-two percent discuss the concern with the family and/or provide anticipatory guidance. Almost one-half monitor the child.

If a child 0-3 does not pass the social/emotional screening, what do you typically do?	Percent Responding Yes
Discuss concern with family/provide anticipatory guidance	62%
Monitor the child	49%
Re-screen the child	27%
Make external referral	68%
CFC/EI	46%
Hospital/therapist	16%
Other:	--
Other	--

Rates of referral for developmental and social/emotional concerns

Training participants were asked to estimate how many children under three and their families they referred out for evaluation and services for developmental and social/emotional concerns in the last year and month. On average, practitioners reported referring more children and families to the CFC than to hospitals/therapists. These referrals are made more often for developmental concerns than for social/emotional concerns. In interpreting these responses, it is critical to note that respondents were asked to estimate numbers of referrals, these are not based on records of actual referrals made.

	Developmental Concerns (cognitive/motor/language)		Social/Emotional Concerns	
	In the past year	In the past month	In the past year	In the past month
Child & Family Connections (CFC)/Early Intervention (EI)	6.2	3.8	2.3	0.6
Hospital/therapist	2.8	0.25	1.5	0.25

Note: Numbers in cells represent numbers of children referred to this place

Maternal Depression Practices

Respondents were asked about many of their current practices with respect to mental health of mothers with children under age one.

Method of Screening for Maternal Depression

For mothers of babies under twelve months, 70% of practitioners monitor her mental state and/or use clinical judgment to screen for MD.

How do you screen the mental health of a mother with a baby under 12 months?	Percent Responding Yes
Monitor her mental state/clinical judgment	70%
Use a questionnaire/checklist (non-standardized)	6%
Use a standardized tool (Bech, Edinburgh, EPDS, PHQ)	24%
Other (casual conversation and observation)	6%
Do not screen mother's mental health	3%

Periodicity of Screening for Maternal Depression

For those that do screen the mother of a baby under 12 months, practitioners tend to conduct the screening when there is a concern (35%). Twenty-four percent pf practitioners screen these mothers at every visit. Fourteen percent reported not screening mother's mental health.

When do you screen the mental health of a mother with a baby under 12 months?	Percent Responding Yes
At every visit	24%
When there is a concern	35%
Other (postpartum visit)	15%
Do not screen mother's mental health	14%

Action Proceeding Failed Screening for Maternal Depression

When a mother is judged to be depressed or to be at risk for depression, most practitioners (65%) discuss the concern with the mother. Forty-nine percent make an external referral, most often to a case manager or mental/behavioral health specialist. Monitoring the mother (32%) and giving the mother community resources (32%) are other common actions taken.

If a mother is judged to be depressed or at risk for depression, what do you typically do?	Percent Responding Yes
Discuss concern with mother	65%
Monitor the mother	32%
Give community resources/hotline number	32%
Make external referral	49%
Her physician	24%
Hospital/therapist	14%
Mom is my patient too	5%
Other (case manager, behavior heath, MH)	36%
Do not assess mother's mental health	3%

Mental Health Consultation

Access to social emotional or mental health consultation

Sixty percent of training participants report that they have access to social emotional/mental health consultation to discuss their concerns about a child younger than age three under their care. For those with access, 67% report that it is too little and 33% report it is about right. Asked to rate how beneficial they find that consultation, 53% indicate they find it very beneficial, 37% find it somewhat beneficial and 5% find it not beneficial.

Discussions with social emotional consultant

When asked what they do or would want to discuss with a social emotional consultant, participants offered the following topics and/or comments:

- Voice concerns to ensure follow-up and address those concerns
- Need time to utilize the screenings
- Case problems, recommendations, further testing and recommended devices
- Child's development, ongoing assessment
- Community resources for therapy/treatment
- Child and family issues
- Strategies to clarify and address problems
- Too many issues to put on this form

To what extent do you feel knowledgeable and comfortable and skilled about SE and MD concerns?

Each training participant was asked to rate on a scale of 1-5 how knowledgeable they were about the following items:

1. Social emotional (S/E) development
2. Signs of a healthy parent/child relationship
3. S/E problems in the first three years of life
4. Interventions for S/E /behavioral problems
5. How to support parent/child relationships
6. Community mental health resources
7. Identifying signs of maternal depression

Each training participant was also asked to rate on a scale of 1-5 how comfortable or skilled they were on the following items:

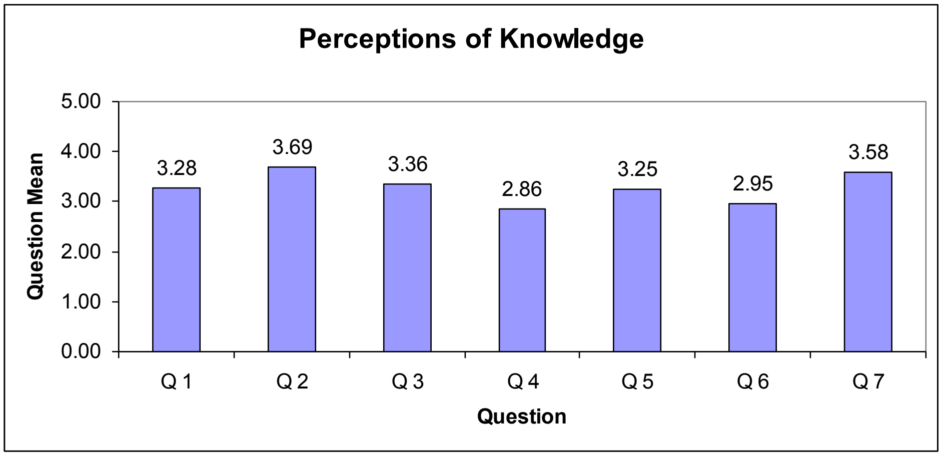
1. Conducting a S/E screening
2. Conducting a MD screening
3. Initiating discussions with parents about relationship and behavioral concerns
4. Helping parents observe their child's cues and preferences to develop supportive approaches to caregiving and discipline
5. Encouraging pleasurable parent/child interaction
6. Conducting a screening for maternal depression
7. Making a referral for S/E concerns
8. Making a referral for MD concerns

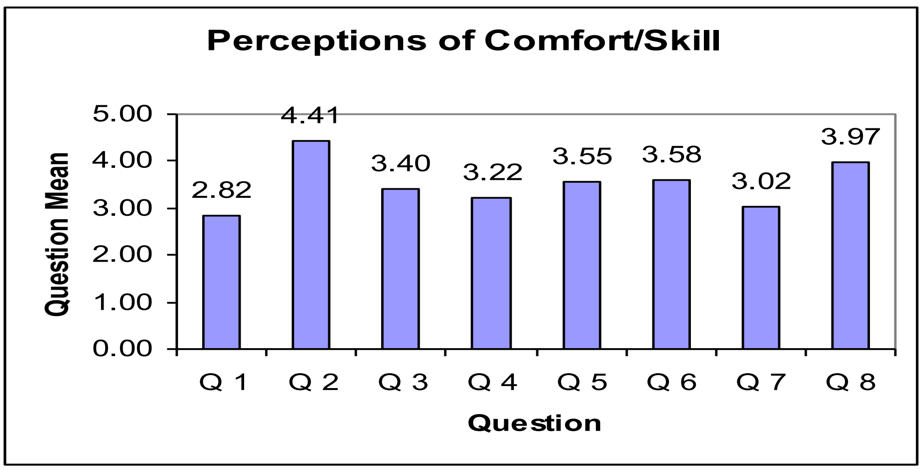
Average scores were calculated for each set of questions (knowledge and comfort/skill). Higher scores reflect higher levels of perceived knowledge and comfort/skill.

	Mean
Average perception of knowledge	3.24
Average perceived level of comfort and skill	3.47

Average differences between perceptions of knowledge and comfort/skill were not statistically significant, t (28) = -1.51, $p > 0.05$.

Below are the individual item means for respondents' perceptions of their level of knowledge and comfort/skill. Inspecting these individual item means provides insight to relative areas of strengths and weaknesses.





SE/MD Survey Summary

Data gathered from pediatricians, family physicians and nurses indicate that they do not feel entirely prepared to address SE and MD concerns with their clients. Practitioners are currently relying more on clinical judgment that standardized tools to screen for mental health concerns; such practices may have limited reliability and validity. Training participants agreed with practice representatives that they regularly make use of external referrals for additional evaluation and services for their clients. Results indicate that pediatricians, family physicians and nurses may stand to benefit from the ABCD II project by acquiring specific knowledge and recommendations for standards of care.

Conclusions

Data gathered from practice representatives and training participants suggest a need for the ABCD II project. While some pediatricians, family physicians and nurses are regularly assessing the social/emotional development of their patients under three, many are doing it while juggling barriers of adequate time, staff and training. Moreover, they are often using non-standardized screening procedures which may have inadequate reliability and validity. Pediatricians, family physicians and nurses may also be under-attending to the mental health of new mothers which invariably affects the development of young children. By building the capacity of practices to establish systems-wide standards of care for young children's mental health it is hoped that many more children's mental health concerns will be identified earlier, thereby allowing them to potentially benefit from receiving earlier intervention.