

Assessment of Preterm Infants' Behavior: Insights from the Field and Projections for the Future

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DOI: 10.14434/do.v16i3.36566

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With appreciation and reflections of my journey in APIB training and practice with Dr. Elsa Sell, my APIB Trainer so long ago. Elsa was an early neonatology game changer, custom breaker, and consistent advocate of the NIDCAP work. She braved the medical system to learn and teach the APIB approach even before there was NIDCAP. Here's to you, Elsa!

In the NIDCAP world, there is no achievement more rewarding than that of becoming an APIB (Assessment of Preterm Infants' Behavior) Professional and Trainer. The APIB,^{1,2} has a reputation for a detailed, challenging-to-learn yet unparalleled assessment, providing insight into the baby's capabilities and voice.³ Its approach and systematic elicitation of a baby's responses to increasingly complex questions reveal optimal individualized information about their competencies. The APIB provides a feeling of delight when it tells us about babies' experiences. Parents marvel at the insights elicited by the administration of the APIB and what we professionals bring from the exam that helps them "see" their baby. Learning and applying findings from administering the APIB can be rewarding to the examiner, other professionals, and parents.

Only a few APIB Trainers are available to provide support and insights into the exam. Aside from NIDCAP Trainers, for whom reliability in the APIB is a required step, or researchers, who must be reliable to conduct studies, few individuals are considered "APIB Professionals".

The experiences of those APIB Professionals who have either been through the process or are in the process of learning the exam can provide insights into how the training was valued, how they are using the APIB, and what recommendations for changes in training and implementation they offer. A survey was developed and sent to a variety of professionals and trainees to request their expertise and recommendations for consideration of changes and next steps for the APIB. The survey was created to know how learning the APIB has influenced the activities in which APIB Professionals engage.

Methods

Survey Development

The "APIB Practice and Training Survey" was developed in consultation with four current APIB Trainers.

The following categories were identified to determine how the APIB is currently being used: the impact on clinical work; the impact on working with babies and families; the benefit to NIDCAP training; the use in research; and, the use in supporting other professionals. Further categories included: the requirement to become a NIDCAP Trainer; the impact on



Nadine Griffiths and infant during an APIB assessment

training approaches; and, recommendations for APIB training for other professionals. Further details about the content of the survey can be accessed through the author.

Data Collection

Each APIB Trainer provided a Survey Monkey link for the survey to those whom they had previously trained or those currently in training. Thus, the survey was a convenient sample to elicit the views of those with a vested interest in the APIB and who were willing to share their insights. Direct responses to the questions were followed by a request for comments to each of the question offered.

Data Analysis

Results were analyzed using descriptive statistics and qualitative descriptions with representative quotes from the respondents included. The results provided valuable information regarding training, clinical application to the NIDCAP work, and recommendations for the future of APIB work.

Findings

Description of participants

Fifteen globally represented APIB Professionals and APIB Professionals-in-Training responded to the APIB survey. Most of the respondents were APIB Professionals who were trained between six years and “over 20” years ago. Although data were collected anonymously, based on those who were interested in receiving the results, respondents were from Canada, Europe, Australia, Japan, and the United States. For 70% of APIB Professionals, they reported it took between one and five years to become reliable.

Clinical application to use of the APIB

After APIB reliability, over 50% described not using the APIB clinically but 25% use it “a great deal.” Overall, responses indicated that regardless of administering the APIB and scoring it, the knowledge and insights from learning APIB were valuable. The APIB is used both in the hospital before the APIB discharge and in outpatient follow-up settings. Modifications are frequent, including using it as a part of the neurological exam, at the baby’s bedside, in discharge guidelines, using parts of the exam as appropriate and not scoring the exam.

Clinical application to work with babies

Respondents indicated that it was easier to identify the baby’s strengths and challenges, organization, and disorganization that informed their daily assessments and interventions. Several commented on how it solidified their understanding of states and co-regulation and helped them understand the Synactive Theory better. Learning the APIB also helped them see the details and intricacies that were not readily apparent in observations.

All babies, even those who have severe brain injury, show neurobehavioral strengths. These strengths only become apparent if one goes at the babies’ pace, and provides facilitation, and ‘trust the baby’.

Clinical application to working with families

The themes of how to work with babies and families centered on how the APIB helps guide parents to understand the communication of their baby and how to bring out the best in their baby. It gives rise to how to communicate with the parents about how to optimally support their baby. Learning the APIB also promoted the value of supporting families which leads to greater competence and thus better outcomes for the baby.

[Learning the APIB helps me] to support them to facilitate for the baby to be attentive and by this for them to reach those important moments of interaction.

And

I can guide the family to make it easier for them to interact with the baby.



Entry to APIB exam room in Japan

Impact on NIDCAP training

Over 70% of the respondents say that learning the APIB has enhanced the training they provide to others.

Overall themes included that the APIB helped to solidify their NIDCAP observations and integration of the subsystems. It also provided a sound foundation for training, feeling more secure about observations, and confidence in making recommendations for care.

(With NIDCAP) I learned about the strengths and weaknesses of babies only through observation, but with APIB, I think I was able to gain a deeper understanding of the strengths and weaknesses of babies by actually touching them.

Using the APIB in research

Of those who have used the APIB in research, 65% are not currently using the APIB, but over 30% either have used, plan to use, or are using the APIB in research.

Respondents commented on how unlikely it is that they do research using the APIB due to lack of funding, that the APIB is not well known in research communities, and that doctoral work is limited due to the time to learn and intensity of the training.

Use of the APIB in supporting other professionals or students

About half of the respondents use the APIB in training or supporting other professionals. The use of the APIB in training nurses, therapists, residents, developmental specialists, therapists, neonatologists, and others is ongoing for many of the respondents. However, the actual exam or scoring is not typically done as much as using the knowledge gained through APIB training.

I demonstrate the APIB evaluation. This opens the student’s mind to the amazing insight that can be gained with appreciating each infant’s emerging strength and competence as well as vulnerability.



Ghent Training Group learning the APIB: Eveline Van Dyk, Angelina Perez, Anneleis Keymeulin, Julie Verfaillie

Recommendations regarding the training process

A question that often comes up for those who have been trained in the APIB is the utility of the training approach. Because becoming reliable in the APIB is currently a requirement to be a NIDCAP Trainer, we asked if they would learn the APIB if it were not required.

About half of the respondents reported that they would be likely or very likely to learn it and half said they would be unlikely or very unlikely to learn it. Respondents reported that they were unlikely to learn the APIB due to the cost and time investment of training without understanding the benefit of learning the APIB. They also mentioned training challenges of coordination with the limited number of APIB Trainers, especially if a Master Trainer was also involved. Some concerns were raised about the lack of normed scores that support its use after reliability was achieved.

I also don't think that there is enough understanding amongst our NIDCAP colleagues [who have not done APIB] about why it is necessary to know APIB to be a NIDCAP Trainer.

Recommendations for changes in the training approach

The majority of respondents recommended support for APIB training. Specifically, themes included the development of updated materials and access through virtual distribution. Many recommended the use of videos as well as frequent access to trainers through virtual assistance between face-to-face visits. Some recommended the use of adult learning principles, breaking down sections for which to become reliable, and “workshops” to encourage frequent discussions about learning the APIB.

Recommendations to lower the reliability expectations for clinical and training purposes were made.

I see the challenge of teaching and learning APIB as the length of time between sessions with the trainer. In between there may be quite a bit of virtual work that can be accomplished. I think training videos for the APIB would be great as an adjunct to the in-person Trainer and trainee sessions and would speed up the process to certification.

Respondents commented on whether they would recommend learning the APIB to others if it is not a requirement to become a trainer

About 40% would recommend learning it to others and 30% would not.

Themes referred to role designation and the utility of those roles, and that it is an insightful, useful instrument for professionals in the NICU. However, themes again included that the APIB is not as practical as other instruments, it is not recognized as qualifying babies for services, trainers may not be available, the manual needs revision and it takes too much time to learn.

It is a VERY useful clinical tool for those who work in the clinical NICU. It would be very helpful for neonatal clinicians to SEE how challenging it is for very preterm infants to do "ordinary baby things" when they are around term age.... usually if the baby can feed/be "fed" then they are passed off as "neurologically normal" by the untrained clinician.

However:

Unless they want it for personal development, or to use it post discharge, but in the U.S., it is not an exam that is recognized to qualify infants for services. And often as a baby becomes stable enough to do the APIB, they are discharged! I think if you are already NIDCAP certified, then use the NIDCAP throughout the hospitalization, unless you have a large population of older babies who are stable enough.

Overall comments about the APIB, the training process, and the use of the APIB

The APIB is a useful if not essential instrument to understand the experiences of the baby and using it along with other approaches might be beneficial. Training is seen by respondents to be an absolute asset to working in a NICU. However, training approaches and reliability levels could be improved. Some recommendations were made for a shorter scoring process, and, throughout training, peer support is essential.

I am curious as to how many Trainers actively use the APIB, and how often. I wonder if we could reconsider this requirement and maybe create an abbreviated version focusing on the systems scores or have Trainers learn to administer and score the APIB but not require reliability but some other measure of competency.

Summary and recommendations for the way forward for the APIB

The responses to this informal survey indicate commitment and in-depth thinking about learning and implementing the APIB. The small number of APIB Professionals and APIB Professionals-in-Training included in the survey likely does not represent the entire population of people trained in the APIB. Their comments, however, provide much food for thought for not only the current application of the APIB for babies and families but also for professional researchers and systems thinking.

Overall, the respondents recommend training in the APIB as it is a powerful instrument for understanding the baby's experience and for helping others appreciate the intricacies of the baby's behavior. To strengthen the process of learning this instrument and its clinical application and use, a number of recommendations were made. Respondents strongly advocated for revisions to the APIB materials and for making training more available and accessible by using video instruc-

tion, electronic materials, and periodic APIB workshops. With these changes, expectations for advancement in the NIDCAP hierarchy will allow for wider dissemination of the APIB and NIDCAP work, acceptance into wider clinical use, and applicability for research.

The APIB is the most powerful tool I know. It would enhance any clinicians understanding of human behavior. For medical clinicians, the APIB would help them come from a model of emerging competence versus the classical deficit model in medical training.

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