Infant Behavior & Development 42 (2016) 69–85

Contents lists available at ScienceDirect

Infant Behavior and Development

Full length article

Early identification of social–emotional problems: Applicability of the Infant-Toddler Social Emotional Assessment (ITSEA) at its lower age limit

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ARTICLE INFO

Article history:
Received 27 May 2015
Received in revised form
21 September 2015
Accepted 5 November 2015
Available online 17 December 2015

Keywords:
Prospective study
Infant development
Infant-Toddler Social and Emotional Assessment (ITSEA)
Bayley III screening test
Parenting Stress Index (PSI)
Behavior problems

ABSTRACT

ITSEA is an often recommended tool for assessment of social–emotional problems and competence delays in children aged 12–36 months, but concerns have been raised about low variability and age-inappropriate questions for children as young as 12 months. This study explored ITSEA's (1) psychometric properties, (2) properties concerning the detection of clinically significant problems and competence delays and (3) discriminant validity at 12 months. A total of 102 children with high versus low risk scores on marker measures of *developmental status* and *parenting stress* obtained at 6 months, were selected from a longitudinal population-based study to participate in the present study. Risk status was operationalized as Bayley III Screening Test (Bayley, 2005a. *Bayley scales of infant and toddler development: Screening test manual* (3rd ed.). San Antonio, TX: Pearson) Composite Subscale scores and Parenting Stress Index total score (PSI, 3rd edition, Abidin, 1995. *Parenting Stress Index. Professional manual.* (3rd ed.). Odessa, FL: Psychological Assessment Resources). At 12 months, ITSEA was administered to parents as a structured interview to identify guidance needs and to collect qualitative information about the items, and the assessment of developmental level and parenting stress was repeated. All ITSEA domains and subscales were found to be relevant. However, nearly all respondents needed guidance. Moreover, there were substantial floor/ceiling effects on subscale level and one item had to be discarded. ITSEA was used in combination with the Bayley-III Screener and PSI to detect cases with clinically significant scores, with ITSEA making a unique contribution to case detection. Dysregulation problems were the most frequently detected, and the differences between high-risk and low-risk group children and gender differences indicated adequate discriminant validity. The results suggest that ITSEA may be meaningfully applied even among children as young as 12 months.

1. Introduction

In order to detect early deviance and to provide help to infants at risk for social–emotional difficulties as early as possible, assessment instruments must target the most common social–emotional problems, behaviors and delays of the first years

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http://dx.doi.org/10.1016/j.infbeh.2015.11.001
0163-6383/

of life. The assessment instruments must also enable differentiation between minor problems and substantial difficulties within the youngest age group. A variety of behaviors and skills associated with social–emotional functioning are observable in toddlerhood, but how well can the emerging skills and behaviors of 12 month old children be detected and differentiated?

The infant mental health perspective is committed to the idea of early intervention not only in cases of manifest psychopathology, but also in cases in which children are at risk of developing psychopathology later on. Several authors have pointed out that there are at least three primary reasons for regarding the early identification of behavioral and social–emotional problems as critical (Bagner, Rodriguez, Blake, Linares, & Carter, 2012; Cicchetti, 2013; Zeanah, 2009): First, severe problems can be observed as early as in children under the age of 2 years (Egger & Angold, 2006; Skovgaard et al., 2007, 2008). Second, many early problems are not transient (Alink et al., 2006; Briggs-Gowan, Carter, Bosson-Heenan, Guyer, & Horwitz, 2006; Kjeldsen, Janson, Stoolmiller, Torgersen, & Mathiesen, 2014). Third, it has been shown that targeted intervention efforts at early stages are successful in bringing aberrant development back on track (Murray, 2014; Zeanah, 2009). Early detection and treatment have the potential to relieve the suffering of children and their families, as well as opening possibilities for more cost-efficient channeling of societal resources (Powell, 2010; Shonkoff, 2010).

Both in research and clinical assessment, checklists are important tools for assessing social–emotional functioning. Comprehensive checklists are even more important when assessing children under the age of 3 years, as compared with older children, because there are no suitable diagnostic interviews available for the youngest age group (Egger & Emde, 2011). The Infant Toddler Social Emotional Assessment (ITSEA; Carter & Briggs-Gowan, 2006) is a questionnaire recommended for this purpose (Egger & Angold, 2006; Wakschlag & Danis, 2004). ITSEA reflects a broad spectrum of behaviors described in the developmental psychology and psychopathology literature. It has established age norms from 12 to 35 months—the lowest norm age band is 12–17 months (Carter & Briggs-Gowan, 2006). Nevertheless, even though ITSEA is recommended from 12 months and upwards, many of the targeted, clinically important behaviors either require skills beyond 1-year old children's developmental level or are considered perfectly normal at this age. In addition, many of the observations require more interpretation than is the case when assessing older children (e.g. "has nightmares"). The infant behavior repertoire is limited, so a broad range of the infant's needs must be communicated by means of a narrow range of behaviors. The competence level and the behavior repertoire of an infant within the 12–17-months age range develop rapidly. We therefore ask if caution is called for when assessing the youngest children with ITSEA.

ITSEA has been applied in a number of studies. In most studies, the participating children were older than 12 months. Often, the short-version, Brief Infant-Toddler Social and Emotional Assessment (BITSEA) (Briggs-Gowan & Carter, 2006), was used (Karabekiroglu et al., 2013; Lowell, Carter, Godoy, Paulicin, & Briggs-Gowan, 2011; Palmer et al., 2013; Smith, Akai, Klerman, & Keltner, 2010; Wendland et al., 2014). In many cases the samples were drawn from selected populations, i.e. preterm infants (Erickson, MacLean, Duvall, & Lowe, 2013; Lowe et al., 2013; Pineda et al., 2014; Spittle et al., 2009; Treyvaud et al., 2012) or clinical populations (Ben-Sasson, Soto, Martinez-Pedraza, & Carter, 2013b; Davis & Carter, 2008; Irwin, Carter, & Briggs-Gowan, 2002; Stika et al., 2015; Visser et al., 2010). However, there are few studies of community samples in which the full version of ITSEA has been applied, and to our knowledge there are only four empirical studies describing the social–emotional functioning of children as young as 12 months with ITSEA (Ben-Sasson, Amit-Ben-Simhon, & Meyer, 2013a; Carter, Little, Briggs-Gowan, & Kogan, 1999; Gerardin, 2012; van der Pal et al., 2008). Two of the studies; a study of early signs of autism (Ben-Sasson et al., 2013a), and a study of maternal depression (Gerardin, 2012) do not address measurement issues concerning use of ITSEA with children as young as 12 months. The other two indicate concerns about applicability: In an American cross-sectional study of a demographically homogenous low-risk sample of 91 12 months old children, Carter et al. (1999) reported associations between parent ratings on the ITSEA and laboratory observations of task mastery, emotion regulation, coping behaviors and attachment status. They concluded that the magnitude of the associations was small and that the children's young age probably yielded restricted variability. In a study of very pre-term infants' behavior at 12 months, van der Pal et al. (2008) omitted a priori items considered not to be age appropriate. Empirical data supporting the omission rationale were not reported. Given that two of the four studies reported concerns about measurement problems connected to low variance, there is a need to further investigate to what extent psychometrically and conceptually meaningful individual differences among children as young as 12 months can be detected with ITSEA, and also, which spectrum of significant social–emotional problems and competence delays it is possible to identify when applying ITSEA at this early age. To address these questions studies of community samples are needed.

Furthermore, to the best of our knowledge, all reported studies of ITSEA are based on the questionnaire format. A problem with using a questionnaire instead of an interview may be connected to the reliance on respondents' interpretation of the infants' behavior. During assessment the parent or caregiver has to interpret both the child's behavior and how observable behavior fits the item content. If ITSEA is administered as an interview, it may be possible to access valuable qualitative information from the respondents about its applicability and informants' guidance needs can be identified.

Assessments of infant problems and developmental delays often involves a combined dimensional and categorical approach. In psychiatric epidemiology "caseness assignment" is the process in which the status of having a given clinically significant condition, or not, is assigned to a given subject (Burger & Neeleman, 2007; Sadler, 2005). When measuring individual differences in behaviors and symptoms of concern by standardized dimensional instruments, statistically defined cutoff-points represent the border between cases that do and do not fall into a score-range of clinical concern. In community samples most children are competent and have few problems, and the problems they do have are most often age typical difficulties (Carter, Briggs-Gowan, & Davis, 2004). A minority of children have manifestations of behaviors that deviate from normative expectations concerning intensity, frequency, onset and/or duration (Egger & Angold, 2009; Egger & Emde, 2011).