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Developing a new assessment procedure of social information processing in adolescents within secure residential care

Maaike M. van Rest [a,b,*], Irene van Bokhoven [a,b], Maroesjka van Nieuwenhuijzen [a,b], Petri J.C.M. Embregts [c], Aart Vriens [d], Walter Matthys [e]

[a] Department of Clinical Child and Family Studies and LEARN! Research Institute for Learning and Education, VU University Amsterdam, The Netherlands
[b] EMGO+ Institute for Health and Care Research, Faculty of Psychology and Education, VU University Amsterdam, The Netherlands
[c] Tranzo Scientific Center for Care and Welfare and Department of Medical and Clinical Psychology, Tilburg University, The Netherlands
[d] De Bascule, Academic Center for Child and Adolescent Psychiatry, Amsterdam, The Netherlands
[e] Department of Child and Adolescent Studies, Utrecht University, and Department of Psychiatry, University Medical Center Utrecht, The Netherlands

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ABSTRACT

The purpose of the present study was to develop a new assessment procedure of social information processing (SIP) for adolescents, to explore its validity and to examine whether it differentiated between IQ groups. Ninety-four adolescents within secure residential care were administered the SIP instrument, the Youth Self Report and two subtests of the WISC/WAIS. Results showed that the constructs underlying the items of the instrument were associated with profiles from the SIP theory, the subsequent SIP steps were correlated, and several SIP steps were correlated to self-reported behavior. No differences were found between IQ groups. These first results have implications for adjustment of the instrument. Further research should confirm construct validity and psychometric qualities of the scales.

1. Introduction

Adolescents in secure residential care show deviances from social-emotional and behavioral perspectives (Jansen, Schüller, Oud, & Arends, 1995; Knorth, Harder, Zandberg, & Kendrick, 2008). In secure residential care these adolescents are provided with treatment in order to improve their social behavior. A recent Cochrane meta-analysis showed that cognitive behavioral therapy for antisocial behavior in residential settings is significantly better than standard treatment at 12 months follow-up (Armelius & Andreassen, 2007). However, the reduction in recidivism was found to be only about 10%, the effect size was small ($d = .25$), and there was no evidence of long-term effects. Therefore, new and more thorough insights into the characteristics of these youth and the factors underlying their behavior are needed to adjust therapies and increase treatment outcomes.

* Corresponding author at: Department of Clinical Child and Family Studies, VU University of Amsterdam, Van der Boechorststraat 1, 1081 BT Amsterdam, The Netherlands. Tel.: +31 20 5989276.
E-mail address: m.m.van.rest@vu.nl (M.M. van Rest).

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An important ingredient of cognitive behavioral therapy is the training of social problem solving skills, which are part of social information processing (SIP) (Crick & Dodge, 1994; Dodge & Pettit, 2003). According to the SIP theory, several cognitive steps are performed in social situations. First, social information is encoded, and others' intentions are interpreted. Then, goals are identified and several responses to the problem situation are generated. Finally, in the decision making process, responses are evaluated by considering self-efficacy and consequences, and one response is selected. These subsequent steps in the SIP model are associated with one another, and disturbances in these processes lead to problematic functioning in daily life (Crick & Dodge, 1994).

In order to adjust treatment and therapies to the individual characteristics, there is a need to assess SIP and problem solving skills. In the tradition of research on the SIP theory these skills are assessed by posing questions about hypothetical problematic situations such as being provoked, or more generally, being disadvantaged (e.g., Matthys, Maassen, Cuperus, & Van Engeland, 2001; Van der Helm et al., 2013). The problematic social situations are typically vocally described; either presented via audiocassettes, video vignettes, or presented using pictures of social problems. These procedures provided information on the social information processing and social problem solving skills of children through the identification with their own behavior in the social context with peers. Various tests to assess SIP in elementary school children have been developed (e.g., Kupersmidt, Stelter, & Dodge, 2011; Matthys, Cuperus & Van Engeland, 1999; Van Nieuwenhuijzen, Vriens, Scheepmaker, Smit, & Porton, 2011), but SIP instruments for adolescents are still lacking. We therefore set out to develop such a test instrument for adolescents with antisocial behavior.

An important and evermore increasing group within adolescents with antisocial behavior is the youth with mild to borderline intellectual disabilities (MBID; IQ between 55 and 84). Several studies have indicated that youth with MBID show high rates of aggressive behavior problems (Dekker, Koot, Van der Ende, & Verhulst, 2002), are more likely to show antisocial and delinquent behavior than their typically developing peers (Douma, Dekker, De Ruijter, Tick, & Koot, 2007), and are overrepresented in the criminal justice system (Kaal, 2010). Moreover, it was found that youth with both MBID and behavioral problems often live in multi-problem families (Dekker & Koot, 2003). Therefore, these youth are considered as particularly vulnerable. When developing an instrument to assess SIP in adolescents with antisocial behavior this group needs special attention.

The development of a SIP test instrument for adolescents could be based on research of SIP deviances in elementary school children with externalizing behaviors (Dodge, McClaskey, & Feldman, 1985; Matthys et al., 1999) and in children who also had MBID (Leffert & Siperstein, 1996; Van Nieuwenhuijzen et al., 2006; Van Nieuwenhuijzen, Orobio de Castro, Wijnroks, Vermeer, & Matthys, 2009). It was shown that externalizing behaviors of children with an average IQ were associated with encoding fewer social cues, generating fewer responses, higher confidence in the ability to enact an aggressive response, and selecting an aggressive response (Matthys et al., 1999). Externalizing behaviors of children with MBID were associated with encoding negative cues, hostile intent attribution, aggressive response generation, and negative evaluation of assertive responses (Van Nieuwenhuijzen, Orobio de Castro, et al., 2009; Van Nieuwenhuijzen et al., 2011). These children were also found to differ from their typically developing peers in SIP by encoding more negative information, generating fewer assertive solutions to social problems, and generating more submissive and aggressive solutions than the control group with an average intelligence level (Van Nieuwenhuijzen, Orobio de Castro, Wijnroks, Vermeer, & Matthys, 2004; Van Nieuwenhuijzen et al., 2011). Anew, attention must be addressed to this specific group of youth with antisocial behavior problems.

Here we report the first steps in the development of a SIP test instrument for adolescents with antisocial behavior-with and without MBID-in secure residential care. Since the participants of the current study differed from those in previous studies regarding age (Matthys et al., 1999; Van Nieuwenhuijzen, Orobio de Castro, et al., 2009; Van Nieuwenhuijzen et al., 2011), first new material was developed including hypothetical situations typical for adolescent themes in daily life. Second, several validity estimates of the new instrument were examined, such as construct validity, content validity, and criterion validity. Third, we investigated whether the newly developed SIP instrument differentiated between IQ groups in adolescents in secure residential youth care.

2. Methods

2.1. Participants

In the present study 94 respondents in the age of 12–20 years old ($M = 15.88$, SD = 1.44, male = 43) participated. All participants were living in Dutch secure residential care: in juvenile justice institutions, or in secure youth care institutes. Beforehand, an exclusion criterion of the study was a diagnosis of an Autism Spectrum Disorder (ASD), as individuals with MBID and ASD show different SIP patterns than those without ASD (Embregts & Van Nieuwenhuijzen, 2009). In addition, eight participants were excluded due to incomplete test batteries, or incomplete IQ data. For the group comparison, participants were divided into groups based on their IQ: either MBID with an IQ between 55 and 84 ($N = 42$), or average IQ (AIQ) with an IQ of 85 and above ($N = 52$). Table 1 presents the descriptives of the participants in the present study, and IQ-group differences on behavioral measures. The adolescents with MBID did not differ from adolescents with an AIQ on gender, age, and antisocial behaviors. A significant difference was found for ethnicity: the group of adolescents with MBID contained more respondents from an ethnic minority, than the group with an AIQ (Table 1).