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The French version of the Reiss Screen for Maladaptive Behavior: Factor structure, point prevalence and associated factors

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ABSTRACT

The main aims of the present study were to examine the factor structure and the internal consistency of the factors in the French version of the Reiss Screen of Maladaptive Behavior in a French-speaking European sample. The prevalence of psychopathology and the influence of associated factors were also examined. The Reiss Screen was administered to 467 adults (age range: 18–73) with intellectual disability living in the French-speaking regions of Switzerland and Belgium. A confirmatory factor analysis was performed to replicate the original factor structure. Internal consistency was examined by using Cronbach's alpha. Analyses of variance were computed to study the influence of gender, age and Down syndrome etiology. The original factor structure of the Reiss Screen was replicated. The overall rate of psychopathology in the sample was 37%. No linear relationship between age and psychopathology was found. However, adults aged less than 26 years had lower scores than older adults on several psychopathological domains. Males had higher scores than females on the Autism and the Avoidant Disorder subscales. Participants with Down syndrome had lower scores on all domains, with the exception of the Autism subscale. The results of this study suggest that the French version of the Reiss Screen can be a useful tool to detect psychopathology in adults with intellectual disability.

1. Introduction

Persons with intellectual disability (ID) present an increased risk for psychopathology (i.e., mental illness or behavior problems). According to a recent literature review, the prevalence of psychopathology in adults with ID ranges between 14% and 75% (Buckles, Luckasson, & Keefe, 2013). This wide-ranging prevalence seems to be mainly due to differences in diagnostic criteria and specific samples studied. An additional factor making these problems particularly difficult to identify in persons with ID is what Reiss, Levitan, and Szyszko (1982) called "diagnostic overshadowing". They described this construct as psychiatric symptoms confounded by behavioral expression of ID rather than actual symptoms of a mental illness. The high prevalence of psychopathology and the difficulty in identifying it in people with ID illustrate the importance of early identification and prevention of these problems. In this context, early screening tools would be especially useful to

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practitioners and researchers. Although a number of valid instruments are available in the English-speaking context, only a few screening tools exist or have been translated for a French-speaking population with ID.

Hobden and LeRoy (2008) listed 20 instruments assessing psychopathology in adults with ID, all of them in English. Only two instruments are officially available for French-speaking adults with ID. A French translation of the Diagnostic Assessment of Severely Handicapped scale (Matson, Gardner, Coe, & Sovner, 1991) is also available. The original instrument was designed to assess psychopathology among adults with severe or profound ID. However, psychometric properties of the French version have never been evaluated. In addition, Lecavalier and Tassé (2001) translated the Reiss Screen of Maladaptive Behavior (RSMB; Reiss, 1988) into French. This instrument is a well-established tool to screen for psychopathology in adults with ID. The French version replicated the eight-factor structure and demonstrated strong internal consistency coefficients for all subscales, with the exception of the Autism subscale (Lecavalier & Tassé, 2001).

1.1. The Reiss Screen for Maladaptive Behavior

The RSMB is a screening instrument designed to measure the likelihood that adults with ID present significant mental health problems. This instrument was developed on the basis of the symptom descriptions of the DSM-III-R. The RSMB consists of 38 items and was designed to be completed by a respondent (e.g., caretakers, teachers or service providers) who knows the person well. It requires approximately 20 min to complete. The person who completes the scale rates each item on a 3-point scale, where the described behavior is currently (0) not a problem, (1) a problem, or (2) a major problem. Reiss (1988) published results from a principal component analysis that yielded a seven-factor structure, each factor consisting of five items: (1) Aggressive Behavior, (2) Psychosis, (3) Paranoia, (4) Behavioral Signs of Depression, (5) Physical Signs of Depression, (6) Dependent Personality Disorder, and (7) Avoidant Disorder. Further analyses convinced the author to add an eighth subscale measuring autism symptoms. Havercamp and Reiss (1997) tested this eighth factor structure, reporting stable and consistent results.

The RSMB also contains six "special items" measuring six distinct behavior problems: drug or alcohol abuse, self-injury, suicidal tendencies, stealing, sexual problems and overactive behavior. The assessed person obtains a positive score when she or he scores above the clinical cut-off on the 26-item global scale or on one or more subscales, as well as if she or he is noted to have "a major problem" on any of the six special items.

The RSMB has been officially translated into three languages (Swedish, Dutch and French). The Dutch version has been shown to have satisfactory reliability and validity (van Minnen, Savelsberg, & Hoogduin, 1995). The internal consistency of the subscales, evaluated using Cronbach's alpha, ranged between .69 and .91. The Autism subscale, however, had poor internal consistency (.46). The global scale and all of the subscales significantly differentiate persons with ID who have a psychiatric diagnosis from persons with ID who have no such diagnosis (van Minnen et al., 1995).

More recently, Gustafsson and Sonnander (2002) evaluated the psychometric properties of a Swedish version of the RSMB. Inter-rater agreement analyses showed satisfactory results at the global score level ($r = .60$), as well as an agreement of 81% when the positive cases on the RSMB global score and the psychiatric diagnosis were compared ($K = .52$, $z = 10.4$, $p < .001$). Cronbach's alpha for the global scale showed good internal consistency (.90). A principal component analysis replicated the seven-factor structure originally reported by Reiss (1988). The Swedish version also showed good levels of both sensitivity (80% of people with a diagnosis of mental health problems obtained a positive RSMB score) and specificity (83% of non-cases had a negative RSMB score). Lecavalier and Tassé (2001) reported on the factor structure and internal consistency of the factors of their French translation of the RSMB. A confirmatory factor analysis showed that data collected with the French version on a Canadian sample fit reasonably well with the eight-factor structure of the original version (RMSEA = .068). Internal consistency of the global scale and of the eight subscales was tested using Cronbach's alpha. The global scale and the Aggressive Behavior subscale showed good internal consistency (.80 and .83, respectively). Weaker results were found for the remaining seven subscales (Autism = .53; Psychosis = .61; Paranoia = .63; Physical Signs of Depression = .53; Behavioral Signs of Depression = .58; Dependent Personality Disorder = .58; Avoidant Personality Disorder = .61).

1.2. Cross-cultural equivalence

Herdman, Fox-Rushby, and Badia (1998) underline the importance of the functional equivalence of instruments across cultures. These authors based their model of equivalence on the universalistic approach and included five types of equivalences (i.e., conceptual, item, semantic, operational and measurement equivalence). In their study, Lecavalier and Tassé (2001) largely observed assumptions regarding translation rules (semantic), as well as questionnaire format and mode of administration equivalence (operational), when they developed the French version of the RSMB. In the context of the present study, semantic and operational equivalences can be assumed.

The French version of the RSMB is widely used in a clinical context in the studied regions. Despite its clinical popularity, the psychometric properties of the instrument have not received comparable attention. Thus, to assess the instrument's functional equivalence, we aimed in this study to evaluate the conceptual and item equivalences of the RSMB in French-speaking regions of Switzerland and Belgium. Item equivalence exists when new instrument items estimate the same latent traits as in the original version. Conceptual equivalence refers to the correspondence of target concepts between two versions of an instrument. Internal consistency of the questionnaire subscales and confirmatory factor analysis highlights