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The relationship between psychopathology symptom clusters and the presence of comorbid psychopathology in individuals with severe to profound intellectual disability

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ABSTRACT

In the typically developing population, comorbid psychopathology refers to the co-occurrence of two different psychopathologies other than cognitive impairments. With respect to individuals with intellectual disability, comorbidity is often described as cognitive deficits and one additional psychopathology manifesting together. However, just as within the typically developing population, individuals with intellectual disability may also present with symptoms of two or more additional disorders. The presentation of these symptom clusters may similarly correlate. Therefore, the current study used the *Diagnostic Assessment for the Severely Handicapped—II* in order to examine relationships between psychopathological symptom clusters in adults with severe to profound intellectual disability. Additionally, we assessed comorbid presentation of disorders other than cognitive impairments in these same adults. Several symptom clusters were identified as being related with moderate to strong positive correlations. Furthermore, elevations on the Impulse subscale were noted to be the most prevalent in the current sample, with comorbid elevations most commonly occurring along the Mood, Mania, and Anxiety subscales. The significance of these findings is discussed.

1. Introduction

Individuals with intellectual disabilities (IDs) experience cognitive deficits as well as impairments in adaptive and social skills (Ashworth, Hirdes, & Martin, 2009; Soenen, VanBerckelaer-Onnes, & Scholte, 2009). In addition, challenging behaviors such as physical aggression, self-injurious behavior, and pica are fairly common in those with ID (Duncan, Matson, Bamburg, Cherry, & Buckley, 1999; Emerson et al., 2001). In many cases, aside from these challenging behaviors, individuals with ID also exhibit symptoms of comorbid psychopathology (Duncan et al., 1999; McCarthy et al., 2010; Smith & Matson, 2010; Sturmey, Laud, Cooper, Matson, & Fodstad, 2010a, 2010b). Estimates suggest that up to 4–40% of those with ID exhibit comorbidity which makes the topic an important area to investigate (Deb, Thomas, & Bright, 2001; Dekker & Koot, 2003; Rojahn, Borthwick-Duffy, Jacobson, 1993). In those with ID, some of the commonly seen mental health disorders include depression, attention-deficit/hyperactivity disorder, and anxiety disorders, among others (Deb et al., 2001; Dekker & Koot, 2003; Hastings, Beck, Daley, & Hill, 2005).

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While researchers have begun to explore comorbid diagnoses in people with ID, the definition of comorbidity is often in reference to the presence of ID along with one other form of psychopathology (Fidler & Jameson, 2008; LoVullo & Matson, 2009). For example, autism spectrum disorders (ASDs) and ID are commonly researched as the two have high rates of comorbidity (LoVullo & Matson, 2009; Matson & Nebel-Schwalm, 2007; Matson & Shoemaker, 2009). However, researchers have not yet investigated thoroughly the relationships between two different forms of psychopathology in addition to ID. This type of research is seen commonly in the typically developing population. For instance, a large body of literature examines the interaction between mood and anxiety disorders in those with normal cognitive functioning (Erwin, Heimberg, Juster, & Mindlin, 2002; Naragon-Gainey, 2010; Olatunji, Cisler, & Tolin, 2010). The interactions of other symptom classes have also been supported in the literature, such as substance use disorders and anxiety disorders (Grant et al., 2004), psychotic disorders and mood disorders (Armando et al., 2010), and mood disorders and conduct disorder (Kovacs, Paulauskas, Gatsonis, & Richards, 1988). Evidence supports the presence of one disorder or class of symptoms will affect the likelihood of other disorders and symptoms.

As mentioned above, while the literature examining the influence of different types of comorbid symptoms is strong, this research using samples with ID is lacking. For example, it is unknown if elevations in one symptom category are likely to result in elevations of other symptoms related to a different type of psychopathology. However, some research has shown that in general, the presence of two or more disorders in addition to ID resulted in greater impairments in daily functioning (Dekker & Koot, 2003), which suggests that the interactions between symptom clusters is important. Therefore, the purpose of the current study was to examine the relationship between different symptoms of psychopathology in those with ID as well as the possibility of comorbid psychopathology in these individuals as defined in the typically developing population.

2. Method

2.1. Participants

Seventy-six residents of a state-run developmental center in Louisiana served as the sample for this study. Participants ranged in age from 20 to 89 years with a mean age of 52.66 years (*SD* = 14.98). Since the *DASH-II*, which is described below, is designed for both individuals with severe and profound intellectual disability, all participants included in this study had prior diagnoses of either of these two. In regard to gender, 55.3% of the sample was male. The ethnicity of the participants was recorded as Caucasian (69.7%), African American (23.7%), or Unidentified (6.6%).

2.2. Measure

The Diagnostic Assessment for the Severely Handicapped—II (DASH-II): The *DASH-II* is an informant-based assessment which screens psychopathological symptoms in individuals with severe to profound intellectual disability (Matson, 1995). The 84 questions which make up the *DASH-II* are divided into the following 13 subscales: Anxiety, Depression, Mania, PDD/Autism, Schizophrenia, Stereotypies/Tics, Self-Injurious Behavior, Elimination Disorders, Eating Disorders, Sleep Disorders, Sexual Disorders, Organic Problems, and Impulse Control and Miscellaneous Behavior Problems. This broad-based instrument measures the frequency, duration, and severity of these symptoms on a 0–2 scale. With respect to these indices, a 0 indicates no occurrence, less than 1 month, and no disruption or damages, respectively. A score of 1 corresponds to a frequency between 1 and 10 times, duration of 1–12 months, and a behavior that has not caused damage but has interrupted the activities of others. Meanwhile, a score of 2 along each index indicates an occurrence over 10 times, duration over 12 months, and causing injury or property damage, respectively.

Interrater reliability of the *DASH-II* has been well established with percent agreement estimates for the frequency, duration, and severity dimensions as .86, .85, and .95, respectively (Sevin, Matson, Williams, & Kirkpatrick-Sanchez, 1995). In regard to test–retest reliability, percent agreement estimates across all items was .84 for both frequency and duration and .91 for severity. Validity for some individual subscales has also been established including the Mania (Matson & Smiroldo, 1997), Autism/PDD (Matson, Smiroldo, & Hastings, 1997), and Schizophrenia (Bamburg, Cherry, Matson, & Penn, 2001) subscales. For eight of the subscales (i.e., Impulse, Organic, Anxiety, Mood, Mania, Autism/PDD, Schizophrenia, and Stereotypies), cutoff scores have been indicated as those receiving a total frequency score at least one standard deviation above the mean (Matson & Smiroldo, 1997). For the remaining five subscales, severity scores are used to determine cutoffs.

2.3. Procedure

Employees with at least a master's level degree in psychology administered the *DASH-II* by clinical interview with a direct care staff familiar with the individual and knowledgeable of their behaviors. In order for the direct care staff to be qualified to serve as the informant, they must have known and worked with the individual being assessed for at least six months. The interviewer read the instructions, each item of the *DASH-II*, and possible response choices to the informant.

2.4. Statistical analysis

For the current study, only the eight aforementioned subscales for which there have been statistically defined cutoff criteria were included (i.e., Impulse, Organic, Anxiety, Mood, Mania, PDD/Autism, Schizophrenia, and Stereotypies).