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Validation of a Brief Screening Instrument for Emotionally Unstable and Dissocial Personality Disorder Characteristics in Community Service Users with Intellectual Disabilities

Erik Søndenaa[1,2], Kåre Nonstad[1], Frode Dragsten[3], Geir Bjarte Gravdal[3]

[1]St. Olavs Hospital, Forensic dep. Brøset, Trondheim, Norway
[2]Norwegian University of Science and Technology, Regional Centre for Child and Youth Mental Health and Child Welfare—Central Norway, Trondheim, Norway
[3]St. Olavs Hospital, Habilitation Services Brøset, Trondheim, Norway
Email: erik.sondenaa@ntnu.n

Abstract

Personality disorder characteristics can be a complicating factor among people with intellectual disabilities (ID). Persons exhibiting such features are associated with risk for violence and service instability. The purpose of this paper was to study an evaluative tool for personality disorders in people with ID and mental health disorders in community-based services. A new staff-rated instrument, the Personality Disorder Characteristics Checklist (PDCC; Taylor & Novaco, 2013) [1], was used. This tool is designed to screen for ICD-10 dissocial and emotionally unstable personality traits. In the study, the instrument was assessed for both its reliability and validity. Fifty-two randomly selected patients with ID in the specialist habilation services in Norway were scored on the PDSS. The male/female proportion was 30/22 and the mean age was 36.8 (SD = 13.4). The internal consistency of the PDCC was found to be very good. Supportive evidence for concurrent and discriminant validity was obtained in conjunction with other relevant staff-rated instruments. There were twenty-three patients who screened above cut-off for the diagnostic criteria of a personality disorder and two patients previously diagnosed with personality disorder. This demonstrates that such disorders are present in people with ID. It also suggests that such characteristics may have been neglected in the past in providing services to this population.

Keywords

Personality Disorder, Intellectual Disability, Community Services

1. Introduction

Personality disorder is recognised as a problem among persons with mental health and support needs in the general population. It is an issue that complicates service delivery and increases cost, both economic and human. It is reasonable to expect such problems also to be present among persons with ID. Diagnosis of such traits in this latter population, however, is not a simple matter. Alexander and Cooray (2003) [2], citing Tyrer, Casey and Ferguson (1993) [3], note that "the diagnosis of personality disorders is fraught with methodological, clinical and ethical controversies." This, they add, also pertains to persons with intellectual disabilities (ID). Epidemiological surveys in several countries put the prevalence of personality disorders in the general population at approximately 10% [4]. Actual diagnoses, however, are naturally somewhat lower at 4.4% - 9% [1]. British studies of the ID population, as found in both criminal detention and the community, place the proportion of significant personality disorder problems at about the same percentages [5] [6].

The development and implementation of international classification instruments of diagnosis (DSM-IV, ICD-10) [7] [8] have gone some way to clear up definitions and criteria for this class of disorders. As many of the criteria for personality disorders presume a deviance from culturally accepted norms of adult thinking, emoting and behaviour, there are arguments for revised criteria when diagnosing such difficulties in persons with ID. The Royal College of Psychiatrists proposed a system of operationalised criteria (DC-LD) for this type of disorder in 2001, where, among other important points, it is stated that "the diagnosis of personality disorders in severe or profound intellectual disabilities is unlikely." They also advised that "the categories of schizoid, dependent and anxious/avoidant personality disorders [be] avoided" [9]. Both DC-LD and Alexander and Cooray (2003) [2] agree that the diagnosis of paranoid personality disorder in this population is difficult because of the significant cognitive limitations seen. This leaves us with disorders in the "dramatic" cluster B (DSM-IV), which consists of Dissocial, Emotionally Unstable with subvariants Borderline and Impulsive, and Narcissistic Personality disorders. Altogether, formal diagnosis of these disorders in the ID population is challenging. Also, given the diverse nature of complications best explained by the basal diagnosis of ID, there can be little doubt that the traits or characteristics that define personality problems are major stumbling blocks in any kind of treatment, for patients, their surroundings and health care professionals.

In clinical and forensic settings, emotionally unstable and antisocial personality characteristics are recognised as especially challenging. If this is the case in the general clinic, it follows that it is also true for an ID population. These are patients with recurrent behavioural, affective and adaptability issues that pose problems for themselves and other people, in ways that both challenge provision of services and impact upon collaboration, services, risk, and treatability. Obtaining adequate descriptions, and where possible, diagnoses, is paramount in

foreseeing and planning for problems that arise in such cases; only then can appropriate services and supervision be provided. The last two decades have seen a wealth of development in treatment of personality problems, and it is reasonable to expect that access to mainstream treatments will increase for the ID population, as has happened with affective disorders and psychosis [5]. An early, but inspirational example has been presented by Wilson [10].

The literatures on personality problems show that these traits are major contributors to difficulties in service delivery and are associated with substantial problems both for the patient and professionals. For patients to receive appropriate treatment or care, the problem needs to be discovered, defined and described. Screening for personality disorders is difficult in general, and it is more so in a population where there is a tendency to see much that is challenging as simply a part of the broader diagnosis of ID, *i.e.* diagnostic overshadowing [5]. There also is a problem of using self-scoring to detect ego syntonic traits, as personality problems are perceived by the respondent as a justified way of behaving. Additionally, problems are perceived as the result of other people not behaving according to the patient's needs, wants and fears. This lack of mentalisation (*i.e.* the complex interplay of affect, thinking and integrating the experiences of self and others seen from different perspectives) plays a major role in personality disorders and thus renders self-rating instruments largely ineffective [6].

Taylor, Novaco and Anderson (2004) [11] in Britain developed a brief screening instrument for emotionally unstable and dissocial personality disorder characteristics, the Personality Disorder Characteristics Checklist (PDCC). This tool consists of eighteen observer-rated items. It has three scales that identify "caseness" (*i.e.* an argument for probable personality disorder): a) Dissocial personality disorder; b) Emotionally Unstable personality disorder, impulsive type; and c) Emotionally Unstable personality disorder, borderline type). The PDCC was tested and validated for male offenders with ID [1]. The instrument was applied to a population of 129 patients. Of these, sixty-two (48%) were scored as above threshold for caseness. Within this group 22% were in one category, 11% were in two, and 15.5% were in all three. The PDCC showed very good internal consistency (alpha coefficients: Total 0.92; Dissocial 0.84; Emotionally unstable—Impulsive 0.84; and Emotionally Unstable—Borderline 0.87).

In this study, there was also evidence of construct validity, as both total and category scores were significantly associated with history of violence, both prior to and during hospitalisation. In a population with identified dissocial and emotionally instability, this is to be expected.

There is no reason to believe that the prevalence of ID or personality disorders differs significantly between Britain and Norway. The present authors have conducted research on ID in a prison population, where both types of problems are significant, and where quality of care is impacted [12]. When presented with the instrument and evidence above, we approached the originators of the PDCC and received permission to do a Norwegian translation. One of the authors did

the translation; the result was retranslated into the original language and checked with one of the original authors. It was then translated back again and checked for irregularities.

2. Methods

2.1. Setting and Participants

The study was conducted in three separate specialist consultant health services for adults with ID (habilitation services) in Norway. The services are multidisciplinary units serving approximately one thousand patients annually. All patients reside in their local municipalities, where primary health care and welfare services are provided.

Patients included in this study were selected from among those having an identified ID and behavioural and/or mental health problem, as seen in their medical record. Consultants at the habilitation services were asked to recruit patients for the study, and data were collected over a period of one year (March 2015-March 2016). A total of fifty-two patients were included (twenty-two female and thirty male). Mean age was 36.8 years (range eighteen to seventy-two) and mean IQ, as measured by the WAIS-IV, was 57.4 (range 24 to 85). Psychiatric diagnoses were described in thirty (58%) of the participants before the study. Only one of the patients had a previously diagnosed personality disorder.

2.2. Ethical Considerations

The study was approved by the Regional Committee for Medical Research Ethics in Central Norway (ref. no. 2014/340). The data were based on archive information and, further, ratings based on the clinicians' knowledge of each patient.

2.3. Measures

The Personality Disorder Characteristics Checklist (PDCC) is a staff-rated measure designed to assess Dissocial and Emotionally unstable personality disorder traits [11]. The items are based on clinical descriptions that comprise the diagnostic criteria provided by ICD-10. For each item, the informant rates degree of certainty that the behaviour described is characteristic of the patient, using a 6-point scale (0 = uncertain to 5 = very certain). The reliability and validity of PDCC have been studied in a group of male offenders with ID [3], and the instrument was found favourable in comparison to other established instruments.

Psychiatric disorders were identified by means of the Psychopathology Instrument for Mentally Retarded Adults (PIMRA [Informant Version]) [13]. This instrument includes a checklist of fifty-six dichotomised items divided into eight subscales (schizophrenia, affective disorder, psychosexual disorder, adjustment disorder, anxiety disorder, somatoform disorder, personality disorder, and inappropriate adjustment). The rater was asked to indicate whether each statement was true ("YES") or false ("NO"). Diagnosis requires the presence of at least four of the seven symptoms on a subscale [13].

The Vineland Adaptive Behavior Scales (VABS) [14] is a reliable and valid instrument for assessing adaptive behaviour. It provides a maladaptive behaviour index that includes externalising. Simple raw scores on this checklist are used in analysis of the data. Evidence for the reliability and validity of the Maladaptive Behavior Domain is provided by Sparrow, Cicchetti and Balla (1984) [15].

2.4. Procedure

The PDCC, PIMRA and VABS (externalising items) were added to a few demographic and diagnostic information cues and distributed to the professionals in the habilitation services. The packet of materials was described as a calibration study of the PDCC, based on the missing factor of recognising and treating people with ID and personality disorder.

3. Results

Descriptive statistics for the PDCC scales showed results for the three categories: Dissocial (mean = 20.1, SD = 9.7), Emotional Unstable – Impulsive (mean = 11.9, SD = 6.5), Emotional Unstable – Borderline (mean = 19.0, SD = 10.7), and for the PDCC Total (mean = 39.1, SD = 19.2). The ICD-10 criteria for personality disorders require that at least three of the traits or behaviours, as described in the subtypes, be present. Based on this guidance, clinically significant ICD-10 personality disorders assessed by the PDCC were calculated, based on the mean score of greater than 3 per item (0 = uncertain, 5 = very certain) for the subscale item set. Thus PDCC caseness thresholds are 25 and above for Dissocial, 16 and above for Emotional Unstable—Impulsive, and 31 and above for Emotional Unstable—Borderline. Using this threshold, of the fifty-two patients assessed, twenty-three (45.1%) reached the cutoff for caseness on the PDCC (Figure 1). Twenty patients had an above threshold for Dissocial, seventeen above the threshold for Emotional Unstable—Impulsive, and seven above the threshold for Emotional Unstable—Borderline. Figure 2 shows the distribution of personality disorders, as measured by the PDCC.

The PDCC demonstrated high internal consistency. The alpha coefficients of the PDCC Total and its subscales (n = 52 for each) were as follows: Total = 0.90, Dissocial = 0.83, Emotional Unstable – Impulsive = 0.76, and Emotional Unstable – Borderline = 0.82. The inter-rater agreement was obtained by ten staff members familiar with one patient. They rated the PDCC separately. Interclass correlation coefficient (interrater validity) was obtained at alpha = 0.91.

Intercorrelations of all PDCC indices with the Vineland Maladaptive Externalizing Behavior and with the PIMRA Personality Disorder and Adjustment Disorder are statistically significant (n = 52, $p < 0.05$) in each case, demonstrating good concurrent validity. Evidence for discriminant validity can be seen in the pattern of correlations of the PDCC with the other PIMRA disorder scales, as they are foremost nonsignificant.
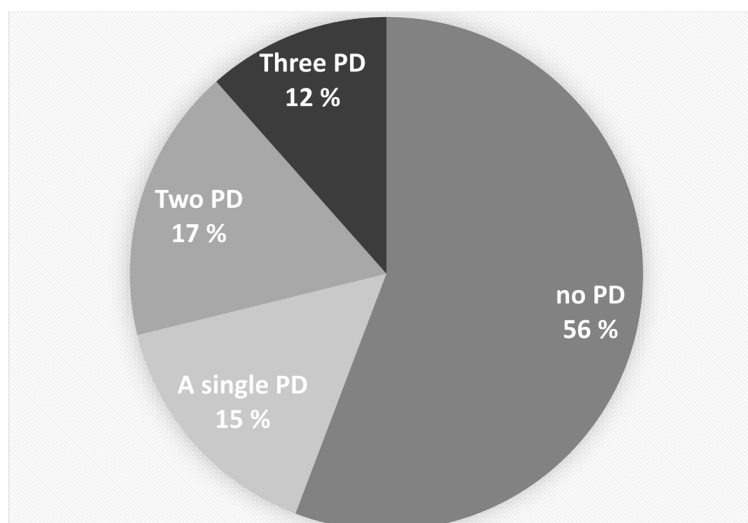
Figure 1. The number of Personality disorders in patients with Intellectual Disabilities (n = 52) measured by the Personality Disorder Characteristics Checklist.
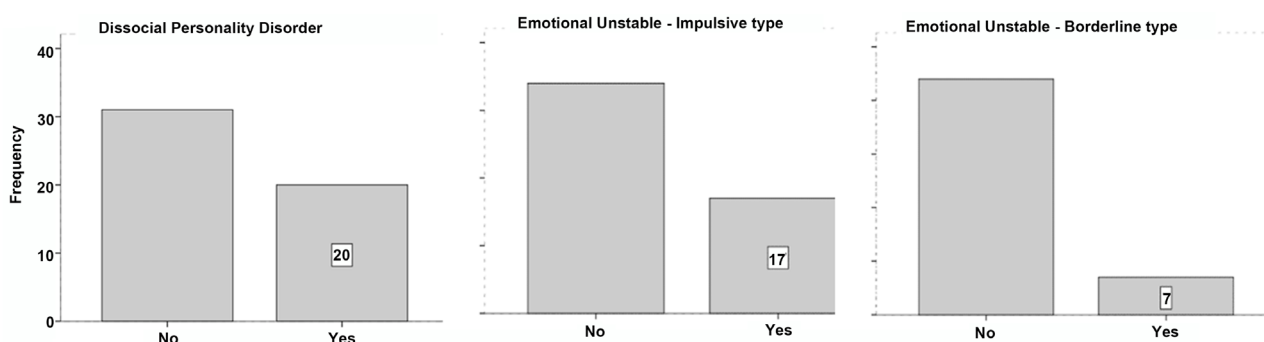
Figure 2. The number of patients with characteristics of Personality Disorders screened by the PDCC.

4. Discussion

Convergent and discriminant validity with "The Psychopathology Instrument for Mentally Retarded Adults" (PIMRA) [16] were good on the expected scales. Neither the PIMRA nor the PDCC has correlated significantly with concurrent self-rating by the patients on personality measures constructed for that use [1]. This is not altogether surprising: the PIMRA and PDCC both are caretaker-rated instruments and, as mentioned, there are theoretical arguments against both personality disorder patients in general, and ID patients in particular, rating themselves.

The internal consistency of the PDCC was found to be very good. We established concurrent validity support for the PDCC with the VABS, as well as the PIMRA total and its Adjustment Disorder and Personality Disorder subscales. Discriminant validity was found in the other PIMRA subscales that are not associated with dissocial or emotionally unstable personality disorder assessed by the PDCC.

The validity of the PDCC was found to be in accordance with the results of Taylor and Novaco [1], but since the present sample was obtained from a mixed ID population, we expected considerably fewer patients obtaining the cut-off for personality disorder. The result of 38.7% filling the criteria of at least one personality disorder is a little lower than the findings from a selected forensic ID sample [1], which also examined the PDCC. However, it is commensurate with Alexander and Cooray [2] and the 31% to 45% found in general outpatient settings [16].

Discovery and communication of personality disorder traits and possible diagnosis in community residences may help to prevent serious incidents and increase the possibility of proper care and treatment. Within group homes, knowledge of the patient's personal vulnerabilities is needed for staff planning and proper security considerations for that person, other patients, and staff members. Recent national surveys have indicated that staff providing care for people with ID face a high risk of exposure to violence at work [17] [18]. The mismatch of the two patients having a personality disorder and the twenty-three patients who screened above cut-off for the diagnostic criteria of a personality disorder demonstrates that such disturbances have been neglected in services for people with ID. Further, it is a defining characteristic of personality disorders that their presence creates staff countertransference and splitting. This increases the risk of acting out, burn-out, and high personnel turnover. This can lead to a more unstable and poorer environment for the care recipient. It is well known in clinical settings that supervision and consulting services are the best way to deal with this. Without a proper definition of the problem, this becomes at best inefficient, at worst counterproductive.

The PIMRA is not commonly used in Norway. However, it is thus far the only validated instrument including assessments of personality disorders [19]. It has eight subscales with seven items each. The personality disorder subscale of PIMRA is not consistent with the ICD-10 or DSM-IV criteria. The externalisation maladaptive functioning from the VABS is not consistent with the diagnostic criteria of personality disorder. The eighteen items of the PDCC, on the other hand, are based on the ICD-10 criteria for dissocial and emotionally unstable personality disorder.

4.1. Practical Implications

Developing practical tools for screening and, further, proper diagnosis of personality disorder among the ID population, is needed. The PDCC is a promising instrument for screening personality disorder characteristics. It is designed to be a fast and reliable way of collecting valid information from those who work closely with the patient. The data presented herein seem to support this view. In clinical work, such information can help differential diagnosis and lead to more precise risk management and a better understanding of the person's behaviour. In short, better care may be a reasonable expected outcome.

The lack of awareness of personality disorders in people treated by unskilled caregivers, not prepared to meet the challenges resulting from a personality disorder, may lead to negative consequences. Evidence-based treatments such as dialectical behavioural therapy and mentalisation-based therapy show little evidence of utility for people with ID diagnosed with a personality disorder [20] [21].

4.2. Limitations

This study is based on a small number of patients, which may impinge on the statistical power of the results. This may have particular bearing on differences observed in correlations between the PIMRA and PDCC. The diversity of IQ scores in the sample also may have impacted upon the PDCC scores. Detailed information about unwanted incidents would have been helpful in the comparison with the British findings.

4.3. Future Directions

More thorough examination of personality disorder problems in the ID population is indicated. Clinical studies based on appropriate treatment models, as exemplified by Wilson [10], should be prioritised in people with ID. Altogether, personality disorder traits appear to be relevant for treatment and care of this population.

4.4. Conclusion

Personality disorders are rarely detected in people with ID and the consequences may be significant to the individual and social welfare. In all, the PDCC-Norwegian Version can be used as a reliable and valid psychometric tool for the measurement of severe personality disorders in the Norwegian population.

Fund

References

[1] Taylor, J.L. and Novaco, R.W. (2013) A Brief Screening Instrument for Emotionally Unstable and Dissocial Personality Disorder in Male Offenders with Intellectual Disabilities. *Research in Developmental Disabilities*, **34**, 546-553. https://doi.org/10.1016/j.ridd.2012.09.018

[2] Alexander, R. and Cooray, S. (2003) Diagnosis of Personality Disorders in Learning Disability. *The British Journal of Psychiatry*, **182**, s28-s31. https://doi.org/10.1192/bjp.182.44.s28

[3] Tyrer, P., Casey, P. and Ferguson, B. (1991) Personality Disorder in Perspective. *The British Journal of Psychiatry*, **159**, 463-471. https://doi.org/10.1192/bjp.159.4.463

[4] Lenzenweger, M.F. (2008) Epidemiology of Personality Disorders. *Psychiatric Clinics of North America*, **31**, 395-403. https://doi.org/10.1016/j.psc.2008.03.003

[5]   Reiss, S., Levitan, G.W. and Szyszko, J. (1982) Emotional Disturbance and Mental Retardation: Diagnostic Overshadowing. *American Journal of Mental Deficiency*, **86**, 567-574.

[6]   Bateman, A.W. and Fonagy, P. (2004) Mentalization-Based Treatment of BPD. *Journal of Personality Disorders*, **18**, 36-51. https://doi.org/10.1521/pedi.18.1.36.32772

[7]   American Psychiatric Association (1994) Diagnostic and Statistical Manual of Mental Disorders (4th ed.). American Psychiatric Publishing, Washington, DC. 394-395.

[8]   World Health Organisation (1992) The ICD-10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diagnostic Guidelines. World Health Organisation, Geneva.

[9]   Psychiatrists, R.C.o., DC-LD (2001) Diagnostic Criteria for Psychiatric Disorders for Use with Adults with Learning Disabilities/Mental Retardation. Vol. 48. Springer Science & Business.

[10] Wilson, S.R. (2001) A Four-Stage Model for Management of Borderline Personality Disorder in People with Mental Retardation. *Mental Health Aspects of Developmental Disabilities*, **4**, 68-76.

[11] Taylor, J.L., Novaco, R.W. and Anderson, L. (2004) Measuring Personality Disorder in Male Offenders with Intellectual Disabilities (ID): Development of a New Scale. *Journal of Intellectual Disability Research*, **48**, 465.

[12] Søndenaa, E., Rasmussen, K., Palmstierna, T. and Nøttestad, J. (2008) The Prevalence and Nature of Intellectual Disability in Norwegian Prisons. *Journal of Intellectual Disability Research*, **52**, 1129-1137. https://doi.org/10.1111/j.1365-2788.2008.01072.x

[13] Matson, J.L., Barrett, R.P. and Helsel, W.J. (1988) Depression in Mentally Retarded Children. *Research in Developmental Disabilities*, **9**, 39-46. https://doi.org/10.1016/0891-4222(88)90018-2

[14] Sparrow, S.S., Cicchetti, D.V. and Balla, D.A. (2005) Vineland Adaptive Behavior Scales: (Vineland II), Survey Interview Form/Caregiver Rating Form. Pearson Assessments, Livonia, MN.

[15] Sparrow, S.S., Cicchetti, D.V. and Balla, D.A. (1989) The Vineland Adaptive Behavior Scales. *Major Psychological Assessment Instruments*, **2**, 199-231.

[16] Senatore, V., Matson, J.L. and Kazdin, A.E. (1985) An Inventory to Assess Psychopathology of Mentally Retarded Adults. *American Journal of Mental Deficiency*, **89**, 459-466.

[17] Department of Occupational Health (2008) Psykososialt arbeidsmiljø [Psychosocial Working Environment], Stami-Rapport nr. 2. Statens Arbeidsmiljøinstitutt, Oslo.

[18] Svalund, J. (2009) Vold og Trusler om Vold i Offentlig Sektor [Violence and Threats in Public Services]. FAFO, Oslo.

[19] Linaker, O.M. (1995) Mental Retardation and Psychiatry. PhD-Thesis, NTNU, Trondheim.

[20] Flynn, A. (2013) Personality Disorders and Intellectual Disability. In: *Handbook of Psychopathology in Intellectual Disability: Research, Practice, and Policy*, Springer, London, p. 177.

[21] Flynn, A., Matthews, H. and Hollins, S. (2002) Validity of the Diagnosis of Personality Disorder in Adults with Learning Disability and Severe Behavioural Problems: Preliminary Study. *The British Journal of Psychiatry*, **180**, 543-546. https://doi.org/10.1192/bjp.180.6.543