

A comparison of use of the Aberrant Behaviour Checklist at the “Lebenshilfe” (Visakhapatnam, Andhra Pradesh, India) and at “La Castalie” (Monthey, Valais, Switzerland)

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Summary

This paper examines the sensitivity of the Aberrant Behaviour Checklist (ABC) in an Indian population with intellectual disability. The ABC is a reference tool largely used to rate behaviour disorders in the population with intellectual disability and commonly used in Geneva institutions. The present study compared ratings obtained in an Indian institution with those obtained in a Swiss institution. The study was conducted at the “Lebenshilfe Institute”, Andhra Pradesh, India, and at the institution “La Castalie” in the canton of Valais in Switzerland. The participants with intellectual disability were assessed with the ABC on two occasions, in 2005 and 2006. No significant differences were found in ABC scores between the 2005 and the 2006 collections. Additionally, higher ABC scores were observed for one factor in the Swiss sample.

for 415 persons with intellectual disability of all ages hailing from poorer sections of Indian society. The main objective of the Lebenshilfe Institute is to enable persons with intellectual disability to become productive members of society who are burdens neither to society nor to their families.

A collaborative effort is established

Our collaboration with the Lebenshilfe Institute began in 2002. Since 2002, the discussion with the team of this Indian institution highlighted the need for a manageable tool for assessing behaviour disorders. Behaviour disorders are the major problem in institutions housing adults with intellectual disability. A tool such as the Aberrant Behaviour Checklist (ABC) could be useful to objectify the different kinds of behaviour disorders in order to find pedagogical and environmental solutions.

The English speaking team in the Lebenshilfe institution found the ABC to be easy to understand and to use, and not to be time-consuming. Until now, no translation of the ABC in Telugu was available. The team underlined the need for a Telugu version, which is easy to use by the non-English speaking team and by the families, in order to provide a stable evaluation of the behaviour disorders.

We decided to target behavioural problems since their occurrence in the population with intellectual disability is very frequent, and because such problems reduce the chances for community integration and access to educational, leisure and occupational activities [5]. The greatest difficulty for the educational staff involves the management of disruptive behaviour, which is a source of stress for training teams, the families and the residents themselves.

The ABC is a reference tool in the domain of intellectual disability and it has been largely used for more than two decades to rate the level of behavioural disorders in the population with intellectual disability [14–16]. The aim of the project was to translate and validate the ABC in Telugu.

In a previous paper, the sensitivity of the ABC [6, 7] was assessed in an Indian population with intellectual disability and the results were compared to the ratings of normative ABC data [8]. The present study aimed to compare these Indian ratings with a European sample, a population with

Introduction

In India, nearly 17 million people, representing 2% of the general population, present intellectual disability (ID) [1]. Consequently, more attention should be paid to the microcosm this minority represents [2, 3].

During the past decade, great efforts have been made to include persons with disabilities in all aspects of life in India, thanks to *The Persons with Disabilities Act* [4], which proclaims equal opportunities and protects the rights of this population.

Lebenshilfe Institute in Visakhapatnam

The Lebenshilfe Institute was founded in 1980 in the area surrounding Visakhapatnam by Mrs. Saraswathi Devi Tallapragada, initially for 12 children with intellectual disability. This non-governmental organization now provides training

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Pervasive Developmental Disorders (PDD) and a similar age range living in "La Castalie" in the canton of Valais in Switzerland. A further step will be to validate the translated version of the ABC in Telugu in persons with moderate to profound intellectual disability living, receiving education or working in the Lebenshilfe institution.

Besides national differences in the two groups that could influence consistent assessment of the disorders due to a differing socio-cultural tolerance, other differences such as nutrition, nursing and medication must be noted. The point is that in our study we are not comparing the two groups, but the application of the ABC in these two groups, therefore the reason for the presence or absence of the disorders is less important than their evaluation. For this reason the focus is more on the cultural difference than on the aetiology of the difference.

Since 2004 we have collaborated with several Swiss institutions taking care of a population of all ages with PDD. The population in "La Castalie" is similar in the age range and in the level of intellectual disability to the population in the Lebenshilfe Institute. Moreover, the population in "La Castalie" presents a PDD as the Indian population. This point is important because the presence of behaviour disorders is largely concomitant to the presence of PDD. For these reasons (age, level in intellectual disability and PDD) we decided to compare the ABC rates in these two institutions.

Method

The two ABC data ratings were obtained in June 2005 and June 2006 at the Lebenshilfe institution and in June 2005 and March 2006 at the "La Castalie" institution in Valais.

Participants

The total sample included 18 participants (see table 1). At the Lebenshilfe institution, the sample of eight included one woman and seven men, from 18 to 32 years of age (mean = 26.5, sd = 5.2), with moderate to profound intellectual disability (F71–F72–F73, according to the ICD-10). Based on ICD-10 criteria [9], the participants were classified as follows: two users show a moderate level of intellectual disability (F71) and six users show a severe to profound level (F72–F73). At "La Castalie", the sample of ten included three women and seven men, from 24 to 45 years of age (mean = 33.5, sd = 8.5). Based on ICD-10 criteria [9], they were classified as follows: one user shows a moderate level (F71) and nine users show a severe to profound level (F72–F73). All participants in both institutions also presented PDD (F84), and they were all receiving adapted training and therapy. Participants whose parents or legal representatives did not give their consent for the study were excluded.

The Aberrant Behaviour Checklist (ABC)

The ABC is a rating scale that was developed for persons with intellectual disability. Originally developed as a measure of the effects of treatment and as an instrument for assessing behaviour disorders [6], the ABC consists of 58 items and has been validated [7]. The ABC was derived by factor analysis, and its five factors are labelled as follows: F1, Irritability, Agitation, Crying (15 items); F2, Lethargy, Social Withdrawal (16 items); F3, Stereotypic Behaviour (7 items); F4, Hyperactivity, Non-compliance (16 items); and F5, Inappropriate Speech (4 items). We used a Telugu

translation of the ABC obtained by the Lebenshilfe staff. This translation was developed through the usual procedure of "translation/back-translation". We obtained the authors' agreement to use this version.

A six-person research team received specific theoretical and practical training in the use of assessment scales and tests.

Procedure

The ethics commissions of the University Hospital of Geneva and of the canton of Valais approved this study. An explanation and clear instructions were given to the participants' families and home supervisors. Written consent was obtained from their legal representatives. For each participant, a member of his/her family (usually the mother) or the home supervisor was individually interviewed by a research team member who had received specific training for the ABC (in India) or by a psychologist from the UPDM (in Valais). The previous month was considered as the period of observation, and the interviews were carried out at the Lebenshilfe institution in India and at "La Castalie" in Valais.

Statistics

We used the Wilcoxon signed-rank test for two related samples. We next compared the mean score of the Indian sample with the mean score of the Swiss sample for each ABC factor using the Mann-Whitney test for two independent samples.

Results

The data from the Lebenshilfe institution were compared to the data from "La Castalie". The two groups present no significant differences in age or gender ratios. Due to the small sample size, the non-normality of data, and the use of ordinal variables, non-parametric statistics were used to analyse the data.

The results are summarised in tables 2 and 3. Our first analysis compared the 2005 and 2006 sets of ABC data in the Indian group and in the Swiss group separately. Using the Wilcoxon signed-rank test for two related samples, our re-

Table 1
Participants' demographics and ID level (according to ICD-10).

Place	Gender	Age	ID level
La Castalie	M	31	Moderate
	F	21	Moderate
	M	30	Severe to Profound
	M	32	Severe to Profound
	M	29	Severe to Profound
	M	18	Severe to Profound
	M	28	Severe to Profound
	M	23	Severe to Profound
Lebenshilfe	M	26	Severe to Profound
	F	32	Severe to Profound
	M	24	Severe to Profound
	M	43	Severe to Profound
	M	24	Moderate
	F	41	Severe to Profound
	M	38	Severe to Profound
	M	24	Severe to Profound
	M	38	Severe to Profound
	F	45	Severe to Profound

Table 2

Mean scores for each ABC factor in the La Castalie group and in the Lebenshilfe group for the first and the second collection.

ABC Factors	La Castalie group		Lebenshilfe group		La Castalie group		Lebenshilfe group	
	1st collection		1st collection		2nd collection		2nd collection	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Irritability	6.6	4.5	9.0	9.7	7.3	4.8	3.9	4.7
Lethargy	14.5	10.2	9.6	13.4	12.7	8.3	7.8	6.9
Stereotypic behaviour	9.0 ^a	4.9	0.0 ^a	0.0	7.1 ^b	2.4	2.9 ^b	5.7
Hyperactivity	15.1	9.0	6.4	6.8	12.9	9.4	4.3	3.5
Inappropriate speech	0.1	0.3	1.3	1.8	0.4	1.0	0.8	1.8

Mann-Whitney test for two independent samples

^a $p < 0.01$

^b $p < 0.05$

sults show that there are no significant differences between June 2005 and June 2006 in the Indian sample and no significant differences between June 2005 and March 2006 in the Swiss sample (see table 2 and 3).

Using the Mann-Whitney test for two independent samples the mean score of the Indian sample was compared with the mean score of the Swiss sample for each ABC factor. The Swiss group scored significantly higher than the Indian group for the F3 factor (Stereotypic Behaviour) in the first ($p < 0.01$) and the second ($p < 0.05$) data collection. For the other factors – F1 (Irritability, Agitation and Crying), F2 (Lethargy and Social Withdrawal), F4 (Hyperactivity Non-compliance) and F5 (Inappropriate Speech) – no significant differences were observed.

Discussion

The Swiss team and the Lebenshilfe institution joined forces in order to introduce evaluation tools that are commonly used in Geneva institutions into an Indian institution. As the context is different, it is important to verify that imported evaluation tools such as the ABC are useful for individuals with intellectual disability in India.

Since the Swiss Psychiatric Unit of Mental Development has extensive experience with the French translation of the ABC and has conducted studies using the same design, [10] we had previously explored the applicability of the ABC scale over time in a different cultural context and compared the data of the Lebenshilfe institution to the normative data in the Aberrant Behaviour Checklist Manual [11–13]. The baseline results showed that the ABC is a sensitive tool when

used in an Indian population with intellectual disability. Comparing these results to the normative ABC sample showed that the Indian group presents higher levels for all ABC factors than the normative sample for the first data collection. However, these differences did not persist through the second and third data collections and a majority of behavioural manifestations were finally found to be similar in Aman and Singh's [13] normative population and in our sample [11, 12].

Cultural factors may influence perceptions of deviant behaviour. Indeed, Gopinath and Chaturvedi [17] reported that Indians were usually much more troubled by inactivity, slowness or unemployment in persons with mental illness than by aggressive or psychotic features. Stereotypic behaviour may also be considered as a kind of inactivity or at least a kind of unproductive activity barely tolerated by educational team or families. Regarding the improvement in the behaviour ratings, this may be explained by a training process in which both parents and staff were involved.

In the present study, the comparison of the Swiss group and the Indian group for ABC factor ratings suggests that the Swiss group only presented higher levels of stereotypic behaviour than the Indian group.

Although the results are very limited by the small sample, it may be noticed that this comparison yielded different results than the comparison with the normative group. Furthermore, the differences specifically concern stereotypic behaviour, showing a more severe problem in the Swiss group. This may be explained by the fact that the evaluation of the intellectual level and the presence of PDD are not easy to compare due to the different cultural approach to the disorders that Gopinath and Chaturvedi [17] reported.

In this study, we explored ABC results over time and targeted two different cultural groups. It would be interesting to compare larger samples matched for intellectual level, diagnosis of PDD and other relevant variables (age and gender) in similar educational settings.

Conclusion

The aim of this paper was to observe the use of the ABC in an Indian population in a setting for adults with intellectual disability. In practice, we observed a good acceptance of this assessment instrument. Except for the stereotypic behaviour factor, the ABC ratings are not significantly different in the

Table 3

Median scores for each ABC factor in the La Castalie group and in the Lebenshilfe group for the first and the second collection.

ABC Factors	La Castalie group	Lebenshilfe group	La Castalie group	Lebenshilfe group
	1st collection	1st collection	2nd collection	2nd collection
	Median	Median	Median	Median
Irritability	7.0	6.0	7.5	2.5
Lethargy	11.0	4.0	11.0	6.5
Stereotypic behaviour	8.0 ^a	0.0 ^a	7.5 ^b	0.0 ^b
Hyperactivity	16.0	4.0	16.0	5.0
Inappropriate speech	0.0	0.5	0.0	0.0

Mann-Whitney test for two independent samples

^a $p < 0.01$

^b $p < 0.05$

Indian and Swiss samples. Consequently these results show that the tool provides reasonable data, making it possible to launch the next step of our research project – the validation of the Telugu version of the ABC.

The same ABC ratings were found in the Indian and Swiss samples, with the exception of the stereotypic behaviour factor, which was higher in the Swiss sample. The assessment instrument was well accepted.

The next step in our work will be the validation of the Telugu version of the ABC in a population with moderate to profound intellectual disability living, receiving education or working in the Lebenshilfe institution in Visakhapatnam.

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