



THE UNIVERSITY
of LIVERPOOL

HMP Liverpool, Styal and Hindley Study Report

22nd January 2007

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1. Background

The HMP Liverpool, Styal and Hindley Study was a collaborative project between Secure Commissioning Team, St Andrew's Hospital, Cheshire and Wirral Partnership NHS Trust, the three prisons involved and University of Liverpool.

The level of learning disabilities in prisons has been under discussion for some time and this study set out to clarify the situation. A diagnosis of a learning disabilities consists of both an IQ below 70 and also social functioning deficits.

2. Aims and Objectives

There were two main aims of the study. The first was to identify the number of prisoners with a learning disability (LD) using an IQ of less than 70 as the cut-off on the WAIS.

The secondary aim was to investigate the utility of the HASI screening tool for LD in a UK prison population. The HASI is being used in the UK in some areas to identify those who need further screening for LD. This study was to validate its use in the UK and if necessary calibrate it to make it more suitable in the UK population.

3. Methodology

Sample sizes were calculated using a power analysis and 140 in HMP Liverpool, 60 in HMP Styal and 60 in HMP Hindley were randomly selected from the prison population for screening.

The screening consisted of three screening tools the Weschler Adult Intelligence Scale (WAIS) to provide the IQ score, the Vinelands Adaptive Behavioural Scale (VABS) to measure social functioning, the HASI a screening tool for LD and a list of questions to collect demographic, educational and health information. The three screening tools were rotated between subjects to remove any order effect.

4. HMP Liverpool

HMP Liverpool is a category B prison (the largest prison in Europe) with a capacity of 1393 convicted and unconvicted prisoners.

A random numbers list was used to select prisoners from the prison list. A total of 204 prisoners were asked to take part to reach the 140 needed for the study this is 68.6% of the original sample. The reason for not taking up the study included refusal, being transferred prior to interview. The mean age of subjects was 33.66 (standard deviation 9.28). Eighty-four percent reported 'problematic' drug or alcohol misuse.

IQ

The mean IQ of HMP Liverpool was 87.11 (standard deviation 12.52), mean IQ in the general population is 100. The table 1 below shows the categories for the 140 subjects

TABLE 1

	LD?	Borderline LD		Low average	Average	High average	Very high average
	<70	70-74	75-79	80-89	90-109	110-119	>120
Liverpool	10	13	20	37	54	5	1

There are 7.1% of the population with an IQ below 70, and a further 23.6% classed as borderline LD.

HASI

The HASI as recommended in the manual a cut-off point of 84 was used on the scale. Using this in HMP Liverpool the HASI identified 34 as requiring further assessment or 24% of the sample, and included 5 subjects with average IQ. It failed to identify 3 (or 30%) of the 10 with an IQ of less than 70 on the WAIS.

5. HMP Styal

HMP Styal is a Women's prison based in a former orphanage. It has a capacity of 469 convicted and unconvicted prisoners.

A random numbers list was used to select prisoners from the prison list. A total of 80 prisoners were asked to take part to reach the 60 needed for the study this is 75% of the original sample. The reason for not taking up the study included refusal, being transferred prior to interview. The mean age of subjects was 30.97 (standard deviation 9.11). Seventy-five percent reported 'problematic' drug or alcohol misuse. Some 68.3% (41) had at least one child.

IQ

The mean IQ of HMP Styal was 83.48 (standard deviation 10.71), mean IQ in the general population is 100. The table 2 below shows the categories for the 60 subjects

TABLE 2

	LD?	Borderline LD		Low average	Average	High average	Very high average
	<70	70-74	75-79	80-89	90-109	110-119	>120
Styal	5	6	13	20	15	0	1

There are 8.3% of the population with an IQ below 70, and a further 31.7% classed as borderline LD.

HASI

The HASI as recommended in the manual a cut-off point of 84 was used on the scale. Using this in HMP Styal the HASI identified 9 as requiring further assessment or 15% of the sample included 2 subjects with average IQ. It failed to identify 2 (or 40%) of the 5 with an IQ of less than 70 on the WAIS.

6. HMP Hindley

HMP Hindley is a Young Offenders Institute it has two sections a Young Adults with a capacity for 244 convicted prisoner (no lifers), and a Juvenile section capacity 192 convicted and unconvicted prisoners, a total capacity for Hindley of 436 prisoners.

A random numbers list was used to select prisoners from the prison list. A total of 74 prisoners were asked to take part to reach the 60 needed for the study this is 81.1% of the original sample. The reason for not taking up the study included refusal, being transferred prior to interview. Eighty-four percent reported 'problematic' drug or alcohol misuse. Of the 60 subjects 85% (51) had been excluded from school, of these 51, 37.1% had had 10 or more exclusions.

IQ

The mean IQ of HMP Hindley was 87.11 (standard deviation 12.52), mean IQ in the general population is 100. The table 3 below shows the categories for the 140 subjects

TABLE 3

	LD?	Borderline LD		Low average	Average	High average	Very high average
	<70	70-74	75-79	80-89	90-109	110-119	>120
Hindley	2	1	13	19	21	4	0

There are 3.3% of the population with an IQ below 70, and a further 23.3% classed as borderline.

HASI

The HASI as recommended in the manual a cut-off point of 84 was used on the scale. Using this in HMP Hindley the HASI identified 15 as requiring further assessment or 25% of the sample, and included 1 subject with average IQ. It failed to identify 1 (or 50%) of the 2 with an IQ of less than 70 on the WAIS.

6. Combined Results.

Demographics

The convicted/unconvicted recruitment rate was similar to the prison profile with slightly less unconvicted in all areas due to prisoners refusing to take part or being released or transferred before interview.

All prisoners were included in the study including foreign nationals and we did not randomly select anyone whose English language ability was too poor to take part in the study. The table 4 below show the ethnicity of the sample.

Table 4

Ethnicity	Percentage in sample of 260
White	88.07
Black	5.4
Mixed Race	3.5
Asian	2.7

IQ

The overall rate of LD in this population of 260 was 6.7%. This would indicate that over 5,000 people with LD would be in prison at any one time (based on a prison population of 80,000). Additionally a further 25.4% have borderline LD this would account for a further 19,500 prisoners (this would include the 6,800 (7.6%) with an IQ between 70 and 74 who would be considered by LD services).

HASI

The HASI identified 22% of the population as needing further investigation for LD whilst it failed to identify 30% of those with and IQ below 70. In its current form using 80,000 as the prison population, 17,600 prisoners would need further screening. This would detect up 3,752 whilst missing 1,608 of those with an IQ below 70 (5,360). For those with an IQ below 75 the figures are: 17,600 additional screening, this would detect 6,248 whilst missing 5,112 with and IQ below 75 (11,360).

7. Limitations of study

This study has used an IQ below 70 as proxy for LD when in fact deficits in social functioning also need to be present and under some circumstances those with an IQ between 70-74 may be offered LD services. We tried to mediate this by the use of the VABS however this should be used with an informant which is not possible in a prison setting and therefore relies heavily on subjective reporting (this has been used in other prison studies).

Additionally the WAIS behaved oddly in this population with over a third of subject having a difference of 9 or greater between verbal and performance IQ (equally split between VIQ>PIQ and PIQ>VIQ) which was unexpected. Further investigation of this factor needs to be conducted.

Findings of high drug use, mental illness, poor schooling (truancy and early school leaving ages) were expected, however we also found high levels of head injury in this population. All of these factors may have contributed to the findings of the study.