

Health problems in people with intellectual disability in general practice: a comparative study

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In a GP database, 318 people with intellectual disability (ID) appeared to have 2.5 times more health problems than people without ID. This short report deals with the nature of the health problems. Consequences for health care policy are discussed.

Introduction

Nowadays, people with intellectual disability (ID) are seen as normal citizens who need individual support. Their health needs after de-institutionalization are reported to be unmet.¹ Mortality appeared to be markedly increased in this group.² Information about morbidity is scarce. There is a need for an evidence-based health care provision for these people, who often advocate poorly for themselves.

The aim of the present study was to examine the differences in prevalence rates of health problems in people with and without ID who currently are being served by a GP.

Patients and methods

Database

This study was conducted within the Registration Network Family Practices (RNH) of Maastricht University in The Netherlands. In this anonymous computerized database, health problems are coded according to the International Classification of Primary Care (ICPC).³ The GPs participating in the RNH store and continuously update the medical records of all patients registered with their practice. The present study was based on the data on file in January 1996.

Persons involved in the study

Case identification of people with ID was achieved by the use of questionnaires defining ID according to the American Association of Mental Retardation.^{4,5}

This resulted in 318 people with ID. Their data were compared with those of 48 459 persons without ID within the same database. Twenty percent of those with ID and 30% of those without ID were older than 50 years. In those with ID, 62% were male, compared with 49% of those without ID.

Statistical analysis

Those patients with and without ID were compared with each other as to the number of diagnoses and the nature of these diagnoses.

The number of diagnoses was calculated by summing the number of diagnosis codes each person had been assigned. In people with ID, the number of diagnoses was reduced by 1, to account for the code for ID. The differences in health problems were then compared for each main anatomical site. Subsequently, the differences in prevalence rate per diagnostic code in the ICPC system were analysed. As a measure of difference, the odds ratio (OR) was chosen. To adjust for the differences in age and sex distribution, logistic regression analyses were performed. The presence of a disorder was the dependent variable. As a reference group for ID, the people without ID were chosen.

Results

In those with ID, 12% showed no health problems, whereas this was true for 21% of those without ID. Logistic regression analysis revealed that the risk for health problems was 2.5 times more for people with ID than for those without.

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The difference in prevalence rate of health problems per body tract between those with and without ID is shown in Table 1. The highest ORs found are for neurological and psychological problems, followed by ear and eye problems.

The results for health problems per diagnostic code are shown in Table 2. Only those disorders that were registered in 10 or more persons with ID and for which the crude OR did not include 1 are presented. In order to avoid false significant results, 99% CI were computed. These showed 16 significant ORs at the 1% level.

ORs on epilepsy, musculo-skeletal impairment and congenital anomalies ranked above 10 for people with ID. Sexually transmitted diseases (STDs) in males, strabismus, perinatal morbidity, deafness, lower leg fractures, obesity and skin problems reflected ORs between 2 and 7 in people with ID.

Discussion

No other studies were found which compared the health problems of people with and without ID in one sample.

It was expected that perinatal problems, motor handicap and epilepsy would be found more often in people with ID. Perinatal problems may have caused the brain dysfunction, which manifested itself as ID, motor handicap and/or epilepsy. However, some other results require further attention.

In the present study, the prevalence rates of sensory impairments for people with ID were much higher than in people without ID. Most people with ID experience problems in communicating with others. Communication may be hampered by sensory impairments. Therefore, GPs should make sure that the sensory capacities of their patients with ID are assessed on a regular basis. Annual otoscopy to detect impacted earwax or unidentified middle ear infection and checks of the proper use of glasses and hearing aids is suggested.

While the above health problems are clearly related to the cause of ID, other conditions seem more related to external circumstances, such as lack of information, lack of exercise, poor mobility, poor eating habits, medication use, etc., that presently are characteristic for people with ID. Anticonvulsants and psychotropic medication may stimulate appetite and obesity. Exercise facilities for people with ID are rare. The high prevalence rate of lower leg fractures is correlated with having epileptic fits, using anticonvulsants and being less mobile. The high prevalence of STDs in males is probably caused by a limited insight into sexual hygiene.

The fact that people with ID have twice as many health problems as people without ID justifies a more proactive attitude towards this group by their GPs. People with ID experience communication problems. This limits them in expressing their concern about their own health. They may have a limited insight with regard to their own health. It is conceivable that under-reporting occurs more

TABLE 1 Prevalence rate of health problems^a (in %) per body tract

Tract	ID+	ID-	Crude OR	Adjusted OR ^c
N Neurological	22.3	8.8	3.0 (2.3–4.0)	3.5 (2.6–4.5)
P Psychological	16.7	7.8	2.4 (1.7–3.2)	3.5 (2.7–4.7)
H Ear	16.0	9.5	1.8 (1.3–2.5)	1.9 (1.4–2.6)
F Eye	11.9	7.4	1.7 (1.2–2.4)	2.0 (1.4–2.9)
A General and unspecified	22.3	15.4	1.6 (1.2–2.1)	1.7 (1.3–2.3)
T Endocrine, metabolic and nutritional	17.9	12.9	1.5 (1.1–2.0)	2.0 (1.5–2.7)
L Musculo-skeletal	34.0	30.7	1.2 (0.9–1.5)	1.3 (1.0–1.7)
Y Male genital system ^b	11.2	9.2	1.2 (0.8–2.0)	–
S Skin	17.6	15.7	1.1 (0.8–1.5)	–
B Blood/blood organs	2.2	2.1	1.0 (0.5–2.3)	–
R Respiratory tract	22.6	26.3	0.8 (0.6–1.0)	0.8 (0.6–1.0)
D Digestive tract	15.1	20.2	0.7 (0.5–1.0)	–
U Urology	4.4	6.0	0.7 (0.4–1.3)	–
X Female genital system ^b	13.9	19.2	0.7 (0.4–1.2)	–
K Circulatory tract	15.1	20.7	0.7 (0.5–0.9)	–

Crude odds ratios of differences between people with ID (ID+; $n = 318$) and people without ID (ID-; $n = 48\,443$) in general practices and results of backward stepwise logistic regression analysis (95% confidence interval in parentheses).

^a The ICD code indicating ID (N85, P24 or P85) was excluded from this calculation.

^b These prevalence rates were calculated for men or women only.

^c The results in this column refer to the results of backward stepwise logistic regression analysis.

TABLE 2 Absolute number of patients (n) in people with ID (ID+; n = 318) and prevalence rate (%) of health problems in people with or without (ID-; n = 48 443)

Code	Health problem	n	ID+	ID-	Crude OR	Adjusted OR ^a
A90	Multiple congenital anomalies	16	5.0	0.4	14.7 (7.1–29.7)	13.8 (8.2–23.4) (6.9–27.6)
N88	Epilepsy	35	11.0	0.8	15.0 (9.1–24.5)	15.4 (10.7–22.2) (9.5–25.0)
L28	Disability/impairment Musculo-skeletal	19	6.0	0.5	11.8 (6.1–22.5)	14.0 (8.6–22.7) (7.4–26.6)
F95	Strabismus	17	5.3	1.1	5.0 (2.6–9.8)	4.8 (2.9–7.8) (2.5–9.2)
A93	Premature/immature liveborn infant	13	4.1	0.9	4.7 (2.2–10.0)	4.4 (2.5–7.8) (2.0–9.4)
N99	Other disorders CNS	14	4.4	1.1	4.0 (1.9–8.2)	4.4 (2.6–7.7) (2.2–9.1)
A94	All perinatal morbidity	17	5.3	1.5	3.7 (1.9–7.2)	3.4 (2.0–5.7) (1.7–6.6)
H86	Deafness	20	6.3	2.3	2.8 (1.5–5.2)	3.3 (2.1–5.2) (1.8–6.0)
L73	Fracture lower leg	16	5.0	1.9	2.8 (1.3–5.5)	2.8 (1.7–4.6) (1.4–5.4)
T82	Obesity QI >30	28	8.8	3.5	2.6 (1.6–4.5)	3.3 (2.2–4.9) (1.9–5.6)
L82	Congenital anomalies Musculo-skeletal system	10	3.1	1.3	2.5 (1.0–5.8)	2.3 (1.2–4.4) (1.0–5.4)
S96	Acne	13	4.1	1.6	2.5 (1.2–5.4)	2.4 (1.3–4.1) (1.1–5.0)
S88	Contact dermatitis or other eczema	18	5.7	2.9	2.0 (1.0–3.8)	2.2 (1.3–3.5) (1.2–4.1)
K96	Haemorrhoids	11	3.5	1.8	2.0 (0.8–4.4)	2.2 (1.2–4.0) (1.0–4.8)
T83	Overweight QI >25	13	4.1	2.3	1.8 (0.8–3.8)	2.1 (1.2–3.6) (1.0–4.3)
Y71	STD (males)	5	2.6	0.4	7.0 (2.5–18.2)	7.7 (3.0–19.2) (2.3–25.6)
Y83	Undescended testicles	7	3.6	1.3	2.8 (1.2–6.3)	2.4 (1.1–5.2) (0.9–6.6)
H72	Glue ear	10	3.1	1.7	1.9 (1.0–3.7)	1.7 (0.9–3.2) (0.7–4.0)
R90	Hypertrophy/chronic infection tonsils/adenoid	35	11.0	7.0	1.6 (1.0–2.6)	1.5 (1.0–2.1) (0.9–2.4)

^a This column refers to the results of backward stepwise logistic regression analysis.

Crude odds ratios and results of backward stepwise logistic regression analysis (95% CI and 99% CI in parentheses).

frequently in people with ID. The excess mortality rate for these people may be reduced by increasing the expertise in physicians. Communication skills regarding people with ID and knowledge of characteristic morbidity patterns should be incorporated into physicians' education.

Preventive activities for people with ID using basic language with an ample use of drawings, comics and videos would focus on reducing morbidity due to life style.

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