

Involvement of CNS Specialists in Health Care Provision for Patients with Attention-Deficit/Hyperactivity Disorder (ADHD): New Data from Nordbaden, Germany, 2003 – 2009

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Overview

Background:

In our earlier cross-sectional analyses of physician involvement in health care provision for patients with a diagnosis of ADHD (for year 2003¹), we had observed that only 36% of children and adolescents and 33.5% of adults had been seen by a CNS specialist.

¹cf. M. Schlandler et al., Who Cares for Patients with Attention-Deficit/Hyperactivity Disorder (ADHD)? *European Child & Adolescent Psychiatry* 2007; 16 (7): 430-438: note that in this earlier work, we had used a narrower definition of CNS specialists than in the current study.

Study Objective:

The present study revisits health care provision for ADHD patients by physician group.

Methods:

Patient-level data were extracted for analysis from the physician-centered claims database of the *Kassenärztliche Vereinigung* (KV) in Nordbaden / Germany, which covers the entire regional population enrolled in statutory health insurance (>2.2 million lives).

For calendar year 2009, 21,287 patients with ADHD ["hyperkinetic disorder", HKD; ICD-10 codes F90.0 or F90.1] (male, 15,108; female, 6,179; including 5,931 patients or 27.9% [male, 4,582; female, 1,349] with coexisting conduct disorder [HKCD; F90.1 or a combination of F90 and F91]) were available for analysis of health care provider contacts.

Table 1: Contact(s) of ADHD patients with physician groups (at least one contact per calendar year)

Year	Number of subjects with ADHD	Subject with ADHD seen at least once by a...							
		CNS Specialist		Pediatrician		Psychotherapist		Practitioner (API)	
n	n	n	%	n	%	n	%	n	%
2003	11,887	4,995	42.0%	8,417	70.8%	1,099	9.2%	7,204	60.6%
2004	12,872	5,407	42.0%	9,041	70.2%	1,355	10.5%	7,481	58.1%
2005	14,121	5,945	42.1%	9,849	69.7%	1,585	11.2%	8,682	61.5%
2006	16,731	7,419	44.3%	11,372	68.0%	1,859	11.1%	9,976	59.6%
2007	18,259	8,359	45.8%	12,418	68.0%	2,009	11.0%	11,120	60.9%
2008	20,094	9,366	46.6%	13,698	68.2%	2,073	10.3%	11,740	58.4%
2009	21,287	10,027	47.1%	14,588	68.5%	2,167	10.2%	12,651	59.4%

Results:

Overall, the rate of ADHD patients seen at least once by a CNS specialist (physician) increased from 42.0% in 2003 to 49.1% in 2009; the rate of those seen at least twice during the calendar year increased from 26.4% to 33.2% (for age group 0-5 years, from 9.1% to 11.1%; 6-12 years, from 27.4% to 33.7%, 13-17 years, from 30.3% to 33.1%, 18+ years, from 26.4% to 33.2%.

Patients with HKCD were more likely to be seen by CNS specialists than patients with HKD only. Most children (in 2009, 84.4%) and adolescents (61.0%) were seen at least once by a pediatrician.

The rate of patients seen by psychotherapists remained stable at ~10%.

Within provider groups, health care for patients with ADHD was highly concentrated. Each child and adolescent psychiatrist treated, on average, 231 patients with ADHD.

Conclusion

Despite a moderate increase since 2003, CNS specialist involvement in health care provision for patients with ADHD remains relatively low.

When we, conservatively, assume that treatment supervision by a specialized physician requires at least two documented visits per calendar year, then (cf. Figure 1) we find it remarkable that, overall, no more than approximately one third of patients (of those insured by SHI) receive this level of specialized medical care.² More than half of all patients with a diagnosis of ADHD have not at all been seen by a CNS specialist during the year.

Thus, community-based pediatricians and general practitioners (cf. Figure 2) continue to play an important role in the care for patients with ADHD.

²Although the difference between Nordbaden and Germany as a whole is much smaller in 2009 compared to 2003, the region has still relatively more child and adolescent psychiatrists per capita (11.7 / 1,000,000 compared to 9.5 per million in Baden-Württemberg and 9.1 per million in the Federal Republic of Germany). Data sources, KV-BaWue, Karlsruhe, and KBV, Berlin.

Specialist Involvement by Age and Gender

Table 2: ADHD patients seen (at least once or twice) by a CNS specialist

(broken down by age group and gender, during years 2003 and 2009)

2003	Subjects with ADHD		Subjects with ADHD seen at least once by a CNS specialist		Subjects with ADHD seen at least twice by a CNS specialist	
	n	n	%	n	%	
0 - 5 years	1,134	202	17.8%	103	9.1%	
hereof: male	776	149	19.2%	76	9.8%	
female	358	53	14.8%	27	7.5%	
6 - 12 years	7,815	3,437	44.0%	2,141	27.4%	
hereof: male	5,846	2,623	44.9%	1,650	28.2%	
female	1,969	814	41.3%	491	24.9%	
13 - 17 years	2,157	979	45.4%	652	30.2%	
hereof: male	1,701	775	45.6%	526	30.9%	
female	456	204	44.7%	126	27.6%	
18 +	781	377	48.3%	237	30.3%	
hereof: male	456	220	48.2%	141	30.9%	
female	325	157	48.3%	96	29.5%	
Total	11,887	4,995	42.0%	3,133	26.4%	
hereof: male	8,779	3,767	42.9%	2,393	27.3%	
female	3,108	1,228	39.5%	740	23.8%	

2009	Subjects with ADHD		Subjects with ADHD seen at least once by a CNS specialist		Subjects with ADHD seen at least two times by a CNS specialist	
	n	n	%	n	%	
0 - 5 years	1,263	252	20.0%	140	11.1%	
hereof: male	910	179	19.7%	99	10.9%	
female	353	73	20.7%	41	11.6%	
6 - 12 years	11,905	5,939	49.9%	4,273	35.9%	
hereof: male	8,423	4,211	50.0%	3,069	36.4%	
female	3,482	1,728	49.6%	1,204	34.6%	
13 - 17 years	5,049	2,338	46.1%	1,671	33.1%	
hereof: male	3,881	1,772	45.7%	1,285	33.1%	
female	1,168	556	47.6%	386	33.0%	
18 +	3,070	1,508	49.1%	978	31.9%	
hereof: male	1,894	879	46.4%	561	29.6%	
female	1,176	629	53.5%	417	35.5%	
Total	21,287	10,027	47.1%	7,062	33.2%	
hereof: male	15,108	7,041	46.6%	5,014	33.2%	
female	6,179	2,986	48.3%	2,048	33.1%	

Specialist Involvement over Time

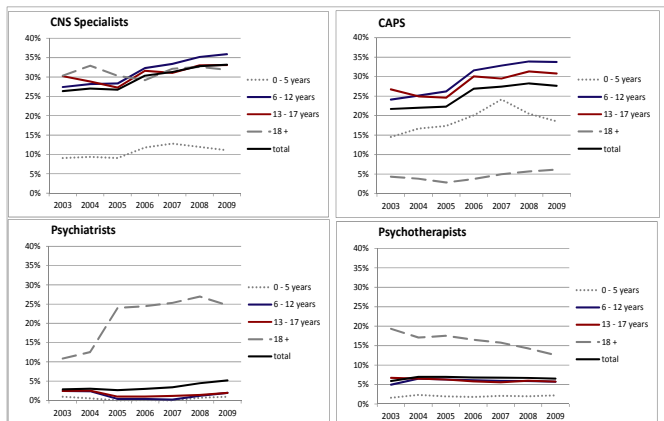


Figure 1: ADHD patients seen (at least twice) by a CNS specialist

(by patient age group; overall and by subgroups; abbreviation used: CAPS, child and adolescent psychiatrists)

Other Physician Consultations

Figure 2: ADHD patients seen (at least once) by a physician (pediatrician or practitioner) who is not CNS specialist

(by patient age group, per calendar year)

