

P01-180 - USE OF MECHANICAL RESTRAIN AMONG PSYCHIATRIC HOSPITALIZED POLISH ADOLESCENTS

A. Butwicka, A. Gmitrowicz

Department of Adolescent Psychiatry, Medical University of Lodz, Lodz, Poland

Objectives: To evaluate factors associated with the use of restrain and its duration among psychiatrically hospitalized adolescents.

Methods: Retrospective, chart-based analysis of patients treated during a 2-year period in Department of Adolescent Psychiatry with average number of patients of 22.6±4.7 and an average admission rate of 320/year.

Results: There were 543 events of restrain during a 2 year period in 164 patients (27/10000 patient days). Restrain was used during 413 (28%) out of 1462 of 12-hour-long analyzed duties. Median duration of restrain per patient was 240 (IQR 90-465) minutes. Factors associated with the risk for restrain in multivariate model were: nurse workload (OR 1.17; 95%CI: 1.09-1.26), fraction of female patients in the unit (OR 3.26; 95%CI: 1.06-10.07), weekday duty (OR 1.67; 95%CI: 1.30-2.13), spring or autumn season (OR 1.51; 95%CI: 1.19-1.93). Child and adolescent psychiatrist on duty (beta= -0.10; p< 0.001) and greater nurse workload (beta= -0.11; p< 0.01) were associated with shorter duration of restrain per patient. Night-time duties were associated with longer use of restrain than day-time ones: 270.0 (25%-75% 92.5-558.8) vs 225.0 (25%-75% 90.0-360.0) minutes. Similarly weekend 292.5 min (120.0-555.0) vs weekday 206.3 min (90.0-427.5) or spring/autumn 295.0 min (25%-75% 105.0-510.0) vs summer/winter 180.0 min (25%-75% 75.0-408.8) duties were associated with highly statistically significant (p< 0.01) longer duration of restrain per patient.

	Duration of restrain per patient (min.)				p level
	Mean+SD	Mean+SD	Mean+SD	Mean+SD	
Type of specialist on duty	General psychiatrist		Child and adolescent psychiatrist		
	306.5+238.9	255.0 (90.0-480.0)	221.0+237.3	120.0 (60.0-270.0)	0.0026
Type of day	Weekdays		Weekend		
	274.8+226.0	206.3 (90.0-427.5)	346.7+259.7	292.5 (120.0-555.0)	0.0080
Season of year	Spring or autumn		Summer or winter		
	326.8+241.7	295.0 (105.0-510.0)	259.8+232.3	180.0 (75.0-408.8)	0.0002
Type of shift	Day		Night		
	257.7+203.9	225.0 (90.0-360.0)	338.7+26,8	270.0 (92.5-558.8)	0.0009

[Duration of restrain per patient and characterist]

Conclusions: Health service-related factors are important predictors of the use and duration of restrain. Adequate number of well-qualified nursing staff should be consider as means to counter this problem.

Keywords: Mechanical restrain, adolescents, risk factors