Psychiatria Danubina, 2021; Vol. 33, Suppl. 9, pp 69-74 *Conference paper*

INPATIENT WITH AN ANXIOUS SCHOOL REFUSAL: A RETROSPECTIVE STUDY

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SUMMARY

Background: *School refusal has an impact on the mental health and on future of young people. This phenomenon cannot only be linked to school dysfunction but must be considered in a larger set of processes. Recent studies propose an understanding of school refusal in terms of psychopathology and individual functioning as well as in terms of associated environmental and family factors.*

Subjects and methods: *We conducted a retrospective study on youths admitted in our child psychiatric unit at HUDERF with an anxious school refusal behavior. The medical records of all 442 patients, admitted in the unit between 1996 and 2019, were inspected. It allows the inclusion of 71 patients, aged from 8 to 16 years.*

Results: *16% of all patients present an anxious school refusal (ASR). There is a significant difference of sex, in inpatients with anxious school refusal, with 70.42% of male ($p<0.0003$). Concerning familial and parental characteristics, family separation (56.3%), conflict at home (27%), contact rupture with the father (25.3%) were associated with the onset of the school refusal. Parental psychiatric illness was frequently reported with maternal psychiatric illness (46.5%) and paternal history of psychiatric illness (28.2%). Maltreatment (30.9%) was also frequently observed in our inpatient population of youths with ASR. Concerning school and peers' relationships, we observe relational difficulties with peers (46.5%), bullying (26.7%), academic difficulties (36.6%) or change of school or moving home (19.7%). Mood and adjustment disorder were the most frequent associated diagnosis in our sample.*

Conclusion: *We confirmed that patient with anxious school refusal that need inpatient care were usually male, with more complex psychopathologies in term of comorbidities and familial maltreatment or psychiatric loading. They also have much more peers and school problems.*

Key words: *school phobia - school refusal - anxious school refusal - school absenteeism*

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INTRODUCTION

School refusal is a type of school attendance problem including anxious school refusal and truancy (Kearney & Bensaheb 2006). Anxious school refusal (ASR) is employed to refer to those for whom absenteeism is associated primarily with emotional difficulties, particularly anxiety and depression (Kearney & Silverman 1999). It can be defined by Berg's criteria (Berg 2002) reviewed by Heyne et al. 2011 (Heyne et al. 2011) as: (1) less than 80% attendance during the past two school weeks (excluding legitimate absences); (2) presence of a DSM-IV anxiety disorder (excluding obsessive–compulsive disorder and posttraumatic stress disorder); (3) parents could account for their child's whereabouts on days of absence; (4) no current DSM-IV conduct disorder (less serious behavioral disturbance in the form of oppositional defiant disorder was permitted); (5) current expressed parental commitment for their child to achieve regular school attendance (i.e., full attendance except for legitime absences).

The prevalence of ASR represents 1 to 5% of school-age children, with a prevalence of 2.1 to 4.8% in the general population (Heyne et al. 2011) and 5 to 7% of patients referred to child psychiatry (Egger et al. 2003, Last & Strauss 1990, McShane & Walter 2001, Elliott & Place 2005). In the clinical population, the prevalence is between 5% and 15% in clinic-referred samples of youth (Egger et al. 2003, Heyne et al. 2001). The actual Covid pandemic situation with lockdown measures will probably increase significantly this prevalence in the next few months.

School refusal is a worldwide concern, with references from Norway, USA, England, France, India, Turkey, Korea, Japan ... It has a direct impact on young peoples, in terms of mental health, professional career and social adaptation. This phenomenon cannot only be linked to school dysfunction but must be considered in a larger set of processes. Recent studies provide an understanding of school refusal in terms of psychopathology and individual functioning as well as in terms of associated environmental and family factors (Elliott & Place 2000, Ingul et al. 2019). Most of the studies, published in the past 20 years, have focused on absenteeism or school refusal behavior and have been carried out, either in the general population or in an outpatient clinical population (Egger et al. 2003, Kearney & Albano 2004, Ingul & Nordahl 2013, Zugaj et al. 2016).

Recent studies show varying degrees of severity in the manifestations of ASR behavior, impacting the prognosis and the management of these young patients. The risk for problematic school absenteeism increases as the number of risk factors aggregate, suggesting that the treatment for ASR should be based on a profile of the individual's risk factors (Ingul & Nordahl 2013). To our knowledge, only few studies focused on inpatients with

an anxious school refusal (McShane & Walter 2001) and shows that inpatients were more likely to have a diagnosis of mood disorders and comorbid diagnoses and to have a maternal history of psychiatric illness.

In the context of increasing demands for anxious problems and school refusal requesting hospitalization during covid epidemy, we conducted a retrospective study on youths admitted in our child psychiatric unit at HUDERF with an ASR. These young peoples, as they need inpatient care, were supposed to exhibit a more severe disorder or a school refusal behavior associated with more severe psychopathologies and significant risk factors. Better identifying these criteria of severity will allow us to better manage and treat them in the next future.

SUBJECTS AND METHODS

Literature review

We primarily carried out a review of the literature from 1990 to 2020, via Medline databases (PUBMED, PsycINFO, OVID, CAIRN INFO), electronic periodical portals (Science direct), target catalogs of ULB libraries, generalized search tools type (Google and Google Scholar) with the following keywords: school phobia, school refusal, anxious school refusal, school absenteeism.

Subject selection

The medical records of all 442 patients, admitted in the unit between 1996 and 2019, were inspected. The unit is part of the Child and Adolescent Psychiatry Department of the Queen Fabiola Children's University Hospital, which is a general pediatric hospital. It welcomes young people between 8 and 16 years old for an institutional and multidisciplinary care, based on the assessment of psychopathology (diagnosis), in its various dimensions: individual, familial, cognitive (educational), social and intercultural. The treatment is multidisciplinary, acute and intensive. It includes stabilization of symptoms, individual and familial support, therapies with media, group activities and drug treatment when necessary.

The exclusion criteria are school refusal due to a somatic pathology, a psychotic disorder or a conduct disorder.

This study has been approved by the Ethics Committee of Hôpital Universitaire d es Enfants Reine Fabiola (HUDERF), Brussels, Belgium.

Medical record review

The data have been collected under the medical record, using a checklist developed by the authors, based on the literature review on the topic of school refusal: patient's gender, status, age of onset of school refusal, age at assessment, duration of school refusal, associated events, life events, use of psychotropic medication, family psychiatric history and family composition, individual psychiatric history, diagnostics based on DSM IV at the end of the hospitalization.

Statistical analysis

The statistical analysis consisted mainly as descriptive one (means and standard deviations) on the data collected. For the comparisons between samples, we use T-student test and Mann-Whitney test.

RESULTS

An initial selection of medical records, based on the following terms in the anamnesis: school absenteeism, dropping out of school, school refusal, school phobia, identified 98 eligible cases. Within these records, a second selection was made, based on the definition of ASR following Berg's criteria. It allows the inclusion, in a retrospective perspective, of 71 patients, aged from 8 to 16 years. This accounted for 16% of all inpatients (N=442).

There is a significant sex difference, in inpatients with ASR, with 70.42% of male ($p<0.0003$). The mean age of the population, at the time of assessment and hospitalization was 12.9 years (SD=1.7, range: 8-16 years). There is a significant difference between girls and boys in term of mean age at the assessment: the mean age for girls was 14 years and 12.4 years for boys ($p=0.0002$) (Table 1). The average duration of hospitalization was 60 days (SD=38.1). There is no significant difference between boys and girls in terms of hospitalization duration ($p=0.8$) (Table 2).

The school refusal generally began, for our population, in the first (30.9%, n=22) or second (19.7%, n=14) year of secondary school. The average duration of school refusal, before hospitalization, was 5.8 months (SD=7.4; range 0.2-30 months). There is no significant difference between girls and boys regarding the average duration of school refusal ($p=0.8$).

Table 1. Comparaison male and female mean age

	Obs	Mean	Std. Err.	Std. Dev.	95% Conf. interval		Min	Max
Age	71	12.90		1.70			8	16
Female	21	14	0.23	1.04	13.52	14.47		
Male	50	12.44	0.24	1.72	11.95	12.93		
Diff		1.56	0.20		0.75	2.37		
P value		0.0003						

Table 2. Hospitalization duration (Days)

	N	Mean	SD	Min	Max
All	71	60.15	38.10	0	212
Female	21	30.62	30.62	7	113
Male	50	61.88	40.99	0	212

P value = 0.8

Table 3. Description of our population (N=71)

	% (n)
Gender	
Male	70.42 (50)
Female	29.59 (21)
Familial characteristics	
Separated parents	56.34 (40)
Parents in couple	29.58 (21)
Conflictual relationship	26.76 (19)
Contact rupture with father	25.35 (18)
Relation with peers	
Relational difficulties with peers	48.57 (34)
Bullying	27.94 (19)
Maltreatment	30.66 (22)
Domestic violence between parents	6.94 (5)
Neglect	8.33 (6)
Physical child abuse	6.94 (5)
Sexual abuse	8.45 (6)
Maternal pshychiatic illness	45.07 (32)
Depression	23.94 (17)
Alcohol abuse	4.23 (3)
Anxiety disorder	7.04 (5)
Learning disorder	1.41 (1)
Eating disorder	1.41 (1)
Sexual abuse	1.41 (1)
Burn out	2.82 (2)
Fibromyalgia	2.82 (2)
Paternal psychiatric illness	28.17 (20)
Learning disorder	1.41 (1)
Suicidal attempt	1.41 (1)
Bipolar disorder	1.41 (1)
Substance abuse	2.82 (2)
Alcohol abuse	15.49 (11)
Depressive disorder	5.63 (4)
Academic difficulties	36.6 (36)
Change school or moving home	19.7 (14)

Concerning familial and parental characteristics, a significant number of life events have been associated with the onset of the school refusal: family separation (56.3%), conflict at home (27%), contact rupture with the father (25.3%).

Maltreatment has also been frequently observed in this inpatient population of youths with ASR: child abuse (30.9%) including domestic violence between parents (22.7%), child physical abuse (22.7%), neglect (27.2%) and child sexual abuse (27.2%).

Concerning school and peers' relationships, inpatients with ASR have had relational difficulties with peers (48.57%), were victim of bullying (27.94%), have had academic difficulties (36.6%) or have changed of school or moving home (19.7%).

Parental psychiatric illness was frequently reported with maternal psychiatric illness reported in 45.07% of the ASR patients, particularly depression in 23.9% of the cases. Paternal history of psychiatric illness was observed in 28.2% of the inpatients with ASR especially alcohol abuse (15.5%) (Table 3).

DSM IV clinical diagnoses were made for all the inpatients: anxiety, mood and adjustment disorder had the highest frequency in our sample (Table 4). 64.8% of the inpatients had a second diagnosis, especially school phobia in 32.4% of the cases (Table 5).

History of learning disabilities has been observed in 30.56% (n=22, N=71) of the inpatients. Nearly half of our population has had an ambulatory follow-up before hospitalization (49.3%, n=35; N=71).

Regarding psychotropic medication, more than half of the inpatients with ASR received a treatment (n=51; 71.83%) during the hospitalization, with 45.1 % (n=32) having received a SSRI antidepressant medication (Table 6).

At the end of the hospitalization, an outpatient care was proposed in 90.1% of cases (n=64, N=71). However, 9.9% needed a residential care or a psychiatric day care.

Table 4. First DSM IV diagnostics of our inpatients with ASR (N=71)

Diagnosis	n	%
Anxiety disorder	*28*	*39.4*
Separation anxiety	9	12.7
Social phobia	8	11.3
Anxiety disorder NOS	6	8.4
School phobia	3	4.2
Generalized anxiety	2	2.8
Mood disorder	*23*	*32.4*
Major depressive disorder	14	19.7
Depressive disorder NOS	6	8.4
Major depressive disorder with psychotic features	2	2.8
Dysthymia	1	1.4
Adjustment disorder	*11*	*15.4*
With depressed mood	6	8.4
With anxiety	2	2.8
With mixed anxiety and depressed mood	1	1.4
With disturbance of conduct	1	1.4
NS	1	1.4
Disruptive behavior disorder	*2*	*2.8*
ADHD	1	1.4
Oppositional defiant	1	1.4
Other	*8*	*11.3*
Somatization disorder	2	2.8
Reactive attachment disorder of infancy or early childhood	1	1.4
PTSD	1	1.4
Psychotic disorder NOS	1	1.4
TOC	1	1.4
Asperger	1	1.4
TDAH	1	1.4

Table 5. Second DSM IV diagnostics of our inpatients with ASR (N=71)

Diagnosis	n	%
Anxiety disorder	*28*	*39.4*
School phobia	23	32.4
Anxiety disorder NOS	4	5.6
Separation anxiety	3	4.2
Disruptive behavior disorder	*5*	*7*
ADHD	2	2.8
Disruptive behavior disorder NS	2	2.8
Oppositional defiant	1	1.4
Other	*11*	*15.5*
Learning disabilities	3	4.2
Reactive Attachment Disorder of Infancy or Early Childhood	2	2.8
Mental retardation	2	2.8
Adjustment disorder	1	1.4
Anorexia	1	1.4
Dyspraxia	1	1.4
Impulse control disorder NOS	1	1.4

Table 6. Medication at the end of the hospitalization (N=71)

	% (n)
Neuroleptic	*26.76 (19)*
Quetiapine	14.08 (10)
Risperidone	5.63 (4)
Aripiprazole	7.04 (5)
Antidepressant	*45.07 (32)*
Escitalopram	23.9 4(17)
Sertraline	16.90(12)
Citalopram	1.41 (1)
Fluoxetine	1.41 (1)
Paroxetine	1.41 (1)

DISCUSSION

Anxious school refusal is an important concern, particularly in the context of Covid 19 pandemic. Most of the previous studies were conducted on the general population or outpatient clinical population (Egger et al. 2003, Kearney and Albano 2004, Zugaj et al. 2016) with only few focusing on inpatients (McShane & Walter 2001, Borchardt et al. 1994).

The prevalence of anxious school refusal is between 1% and 2% in the general population and between 5% and 15% in clinic-referred samples of youth (Egger et al. 2003, Heyne et al. 2001). The prevalence of the trouble among young people aged from 8 to 16, hospitalized in our unit between 1996 and 2020, is 16% which corresponds to the prevalence observed in the clinical population.

We observed a sex difference in favor of male 70.42% (n=50) in our inpatients with ASR, while classically, a sex ratio 1:1 is observed (Zugaj et al. 2016, Holzer & Halfon 2006). Only few studies have shown that boys are affected more often than girls, at a ratio of 2:1 (Knollman et al. 2010).

The age, at the time of assessment, corresponds with the beginning of adolescence, around 12.7 years old and the average duration of school refusal before evaluation was around half a year, which is aligned with the studies. The mean age of onset of ASR in child referred psychiatric patients ranged from 7 to 17 years, with a mean age at 13.5 (SD = 2.4) (Last & Strauss 1990). In a general population, Egger et al. 2003 show that the mean age, at the assessment of young people with ASR, was 12.3 years with a mean age of 10.9 years at the onset (Egger et al. 2003). McShane et al. find a mean age of 14.2 years at the assessment for all population included in her study (in and outpatients) and the mean age of onset of the difficulties was 12.3 years, school refusal had been present for 2 years or less in 80% of the case (McShane & Walter 2001). In comparison with these 2 studies, our inpatients with ASR at the time of their hospitalization are younger, but the range age of the subject were different through the different studies. However, it seems that, in our population, the duration of school refusal before admission is shorter, which could partially explain this difference.

School refusal can occur throughout the entire range of school years, but it appears there are major peaks at certain ages and certain transition points in the child's life. We observe several peaks in the frequency of the appearance of anxious school refusal: between 5 and 7, 10 and 11, and 13 and 15 years old (Last & Strauss 1990). These peaks are influenced by the school system, including their moment of transition. In the United States, where most of the studies have been conducted, important transitional moments in the school system are entry to elementary school (5-6 years), middle school (10-11 years) and high school (13-15 years). In Belgium, the transition between primary and secondary education, around the age of 12, is an important step for young people, both academically and developmentally. That can explain the mean age of onset of ASR at 12.4 years in our study.

The frequency of psychiatric diagnoses differs depending on the type of sample under consideration (representative samples: up to 24.5%, clinical sample: up to 90%) which include both ASR and truancy (Knollmann et al. 2010). The DSM IV or V does not classify ASR as a disorder. Youth presenting ASR are often diagnosed with one or more internalizing disorder: anxiety disorders are observed in approximately 50% of representative samples of clinic-referred ASR patients (McShane & Walter 2001, Walter et al. 2010, Wu et al. 2013). Depression may also be observed among children and adolescent with ASR, but it is not as prevalent as anxiety (Wu et al. 2013, Kearney 2008).

Only half of our patients have had an ambulatory follow-up before hospitalization. These patients having required an inpatient treatment, exhibit more severe disorders or an ASR associated with more severe symptoms in accordance with Mcshane study, that

showed that those inpatients were more likely to have a diagnosis of mood disorders and comorbid diagnoses and to have a maternal history of psychiatric illness.

More significant risk factors were also found in our inpatient population: a third of our subjects have had maltreatment (domestic violence between parents, child physical abuse, neglect and child sexual abuse) in accordance with Borchardt et al. 1994 study comparing in- and outpatient school refusers (Borchardt et al. 1994). They found more physical abuse (25%) in inpatients vs 3.6% for the outpatients. However, this study was carried out on school refusers without differentiating between ASR and truancy. On the contrary, McShane et al. found no differences between inpatients and outpatients experienced history of abuse (McShane & Walter 2001).

School problems were frequent in our population: a quarter were victims of bullying (27.94%) and nearly half have had relational difficulties with peers (48.7%). School refusers often have difficulties in social integration like problem in social adjustment, no friends or very limited social contact, timidity, conflictual relationship (Egger et al. 2003). In addition, a third of our patients have had history of learning disabilities.

Concerning familial and parental characteristics, family separation appears in nearly half of our sample. We also find a contact rupture with the father (25.3%) and family conflicts (27%). Maternal psychiatric illness was reported in nearly half of the patients, and 28.2% had a paternal history of psychiatric illness. These data are roughly consistent with those of international studies (McShane & Walter 2001, Knollman et al. 2010, Kearney 2008).

Use of psychotropic medication is frequent in our inpatients with ASR. The selective serotonin reuptake inhibitors (SSRIs) are emerging as the initial choice for treating anxiety disorders in children and adolescents (Velosa and Riddle 2000).

For school refusers, behavioral and cognitive therapy (CBT) approaches have received the highest attention in the literature (Maynard et al. 2018). In the meta-analysis of Maynard et al, no difference has been identified in the reduction of anxiety symptoms regardless the treatment including psychosocial treatment, CBT treatment and CBT treatment with medication (imipramine or fluoxetine). Concerning school attendance, they highlighted effect favoring the medication + CBT condition.

CONCLUSION

Anxious school refusal shows varying degrees of severity and needs different setup of care depending on simple or complex psychopathology and individual functioning, associated risk factors such as maltreatment, environmental and school problems, but also family factors and parental psychiatric illness. All these factors impact the prognosis and the clinical management of these young patients.

Our study had a retrospective design without any control group. However, we confirmed that patient with anxious school refusal requesting inpatient care were usually male, with more complexities in term of comorbidities and familial maltreatment or psychiatric loading. They also have much more peers and school problems.

Acknowledgements:

Michèle Dramaix for the statistical analysis.

Conflict of interest: None to declare.

Contribution of individual authors:

Mouna Al Husni Al Keilani carried out the literature research, the interpretation of the data, and the manuscript writing.

Véronique Delvenne carried out the interpretation of the data and the manuscript writing.

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