



# Prevalence of Mental Disorders in Adolescent Victims of Motor-Vehicle Collisions

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## Abstract

**Background:** The scientific literature highlighted the relevance of psychopathological symptoms and psychiatric disorders among the victims of accidents. The research that focused on non-fatal injuries has paid limited attention to mental disorders in adolescent victims of motor vehicle collisions (MVCs). However, adolescents' emotional-behavioural functioning and psychopathological risk can be related to their likability of being victims of road accidents.

**Objectives:** This study aimed to synthesize data gathered in an Italian emergency department, specifically focusing on adolescents attending the service for the physical consequences of a motor vehicle collision.

**Methods:** An ad hoc anamnestic self-report questionnaire was administered to 410 adolescents involved in MVCs.

**Results and Conclusions:** This preliminary report shows that non-fatal injuries are very common among adolescents, being particularly related to poor mental health.

**Keywords:** Adolescents, Accidents, Mental Disorders

## 1. Background

Several studies have focused on the incidence of psychopathological symptoms and psychiatric diagnoses in individuals accessing emergency departments (ED) due to non-fatal injuries (1-4), but only a few of them addressed the prevalence of mental disorders among adolescent victims of motor vehicle collisions (MVCs) (5). Some authors (6) have suggested a correlation between adolescents' psychopathological risk and the likability of being victims of road accidents, overtaking the classic view according to which MVCs are due to human errors or other factors (such as alcohol or distraction) (7). They demonstrated that far from being a rare event in the life of a teenager, these experiences are very common (adolescents can access EDs for MVCs even more than four times a year) and are particularly related to poor mental health.

## 2. Objectives

This preliminary report synthesizes data gathered from February 2016 to August 2017 in an Italian emergency department, specifically focusing on adolescents attending the service for the physical consequences of a motor vehicle collision.

## 3. Methods

Methodology and rationale for the study in further detail can be found elsewhere (5, 8). An ad hoc anamnestic self-report questionnaire was administered to 410 adolescents aged 14 - 18 years ( $M = 15.6$ ;  $SD = 2.3$ ). We excluded adolescents who: a) were not drivers of the crashed motorbike ( $N = 14$ ), b) had serious injuries ( $N = 24$ ), and c) had parents refusing to allow youths participation in the study ( $N = 21$ ). Thirty-nine subjects were excluded because they were positive for alcohol or drug use. After the first visit, adolescents were administered through a modified version of the structured clinical interview for DSM-5/research version (SCID-5 RV) to assess mood and anxiety disorders, behavioral disorders, and eating disorder. We chose to assess these disorders and not others to allow comparisons with previous studies (9).

## 3. Results

Table 1 shows the prevalence of mental problems in adolescents based on their number of accesses to Emergency Departments in the last year due to MVCs (Table 1). At the time of the interview, the youth could have already accessed EDs for physical injuries due to MVCs (recidivism

of motor vehicle collisions). We did not perform any correlation analysis for the aims of this report, which are exclusively informative of occurrence of psychiatric conditions among the sample.

**Table 1.** Number of ED Accesses due to MVCs

Diagnosis	Accesses			
	1	2-3	4	> 4
Mood Disorder	12.18	12.41	13.13	13.56
Anxiety Disorder	2.22	2.28	2.44	2.71
Behavioral Disorder	8.61	8.94	9.51	9.96
Eating Disorder	2.02	2.48	2.92	2.96

#### 4. Discussion

The lack of studies addressing the prevalence of mental disorders among adolescent victims of motor vehicle collisions is surprising, given the recent data showing that 1.5 million of youths (aged 15 - 19 years) have been involved in a traffic collision only in the US (10) and that adolescence is a particularly at risk developmental stage for the onset of psychopathology (11). This preliminary report shows the prevalence of psychiatric symptoms consistent with other studies focusing on adolescents in the general population (12), suggesting that the recidivism of MVCs in this sample is related to higher prevalence of psychiatric symptoms in all problematic areas.

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