

Conférence no. 1 :

**Individuals with substance use disorder and the relation of physical activity and multimorbidity**

Florence Piché<sup>1,2</sup>, Chantal Plourde<sup>3</sup>, SIMPAQ network, Ahmed Jérôme Romain<sup>1,2</sup>

<sup>1</sup>Université de Montréal, Montréal, Canada

<sup>2</sup>Centre de recherche de l'Institut universitaire en santé mentale de Montréal, Montréal, Canada

<sup>3</sup>Université du Québec à Trois-Rivières, Trois-Rivières, Canada

**Background:** Physical activity is considered as a therapeutic tool for people with substance use disorder and could also manage multimorbidity (more than 2 conditions). Physical activity is known to be less practiced in people with mental health disorder, but the information is unclear for people with substance use disorder. The objectives were to describe the prevalence of multimorbidity in people with substance use disorder, to describe physical activity level and sedentary time, and to determine if the presence of multimorbidity would be influenced by having a substance use disorder, being active or having an elevated sedentary level.

**Methods:** We did a cross-sectional study using data from the SIMPAQ (simple physical activity questionnaire) database, including 1013 participants from 23 countries. We separate the participants with mental health disorder in two groups (G1: substance use disorder; G2: other mental health disorders). For statistics, we did an ANOVA and a logistic regression.

**Results:** The G1 (N = 423; 36% women; 39.2 ± 12.2 years) and G2 (N = 523; 51% women; 39.9 ± 13.1 years) were similar in terms of multimorbidity (G1: 56% vs. G2: 57%). G1 was more active (2.51 ± 1.89; vs. G2: 2.23 ± 1.83 h/week; p=0.03) and no difference was found on sedentary time (G1: 8.26 ± 3.55; vs. G2: 7.82 ± 3.57 h/day, p=0.062). Also, active participants had less multimorbidity (OR = 0.69, 95% CI 0.50 to 0.92), but no association was detected with having substance use disorder, and a high sedentary time.

**Conclusion:** In conclusion, people with substance use disorder appear to be slightly more active than people with other mental disorders, and physical activity practice to be a protective factor against multimorbidity. Physical activity could be proposed to help people with substance use disorder and mental disorders to prevent the development of future chronic conditions.

Conférence no. 2 :

**Multimorbidity and substance use disorder: influence on hospitalization of people with a mental disorder**

Florence Piché<sup>1,2</sup>, Chantal Plourde<sup>3</sup>, Ahmed Jérôme Romain<sup>1,2</sup>

<sup>1</sup>*Université de Montréal, Montréal, Canada*

<sup>2</sup>*Centre de recherche de l'Institut universitaire en santé mentale de Montréal, Montréal, Canada*

<sup>3</sup>*Université du Québec à Trois-Rivières, Trois-Rivières, Canada*

**Background:** One in four people with a mental disorder also has a substance use disorder. This accumulation of pathologies is defined as multimorbidity (two or more chronic conditions). Multimorbidity complicates the management of patients with mental disorder, yet we have little data on its influence on hospitalization of people with substance use disorder. Objectives: (1) To compare the prevalence of multimorbidity in people with mental disorder and substance use disorder. (2) Determine the influence of multimorbidity and the presence of substance use disorder on length of hospitalization.

**Methods:** The sample consisted of 2173 adult patients with a mental disorder. Two groups were created and matched for age and gender: those with a substance use disorder (G1) and those with another mental disorder (G2). Results were obtained using a percentage calculation for objective 1 and an ANOVA for objective 2.

**Results:** Our groups were identical for age ( $38.5 \pm 12.4$  years) and gender (females = 28%). The prevalence of multimorbidity differed between our groups (G1: 74% VS G2: 81%). The average hospital stay was  $23 \pm 52$  days, with no difference between groups (G1:  $20.78 \pm 50.45$  days VS G2:  $25.02 \pm 53.02$  days,  $p = 0.33$ ). However, without the outliers, the presence of substance use disorder did emerge as having an impact on hospitalization ( $p < 0.001$ ) with a medium size effect ( $\eta^2 = 0.079$ ). The multimorbidity did not appear to have an association ( $p = 0.47$ ) on hospitalization for our cohort.

**Conclusion:** The prevalence of multimorbidity is high among individuals with a mental disorder and with substance use disorder. Multimorbidity does not appear to be a factor associated with the length of hospitalization and having a substance use disorder may have an impact on the length of hospitalization, but further research is needed to confirm this.