

# Early intervention in psychosis

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# CHAPTER 9

SUMMARY

**Chapter 1** provides an overview on the prevalence and incidence of primary psychotic disorders. It includes the rationale of interventions conducted across the world aimed at reducing the duration of untreated psychosis (DUP). Finally, it introduces the concept of population health as a comprehensive approach to design early detection (ED) initiatives for first episode psychosis.

**Chapter 2** presents the use of quantile regression analysis for examining the differential impact of the TIPS early detection initiative across DUP. Secondary analysis explored possible predictors of DUP, and moderators of the effect of the TIPS campaign. 281 patients with first episode psychosis were recruited, including 141 from the ED area. ED had no effect on the first quartile (Q1) of DUP, whereas a significant reduction in Q2 (11 weeks), and Q3 (41 weeks) of DUP was observed. The effect of ED was significantly stronger on reducing Q3 than Q1 or Q2, suggesting that the campaign was more effective in longer DUP samples. Male gender and single status predicted longer DUP in Q3: by 38 and 27 weeks, respectively. Single status, but not gender, emerged as a significant moderator of ED campaign effect. This study offers evidence that quantile regression provided in depth information about the non-uniformity, and moderators, of TIPS's ED effort across the full distribution of DUP, demonstrating the value of this analytic approach to reexamine prior, and plan analyses for future, early detection efforts.

**Chapter 3** reports on the development of an early intervention service in Modena, Italy, with information relevant to the first four years of implementation. The 2-year service was offered to people aged 18-35 with psychotic manifestations, within 2 years from psychosis onset/or naïve to antipsychotics, by teams placed within community mental health centers, according to a "specialist within generalist" model designed by the Regione Emilia-Romagna. Treatment included pharmacological consultation, psychoeducation and social inclusion programs. One hundred cases accepted the treatment from 1 March 2013 to 31 December 2016. Of these, 71% were male with a median age of 23, yielding an estimated treated incidence of 19.1/105. General practitioners represented the most frequent referrers to the program (38%), followed by referrals from acute general and psychiatric hospital units (22%) and self-referrals (14%). Meaningful clinical improvement was observed, 6 months after enrolment. This study is the first to report outcomes of an early intervention service for psychosis successfully

implemented within existing community outpatient services. The promising clinical improvement and the trend of reduction in duration of untreated psychosis supports the variety of early detection efforts in the community. These findings can inform refinement of treatments and service models for the Region.

**Chapter 4** reports on an exploratory study on the timing of the first help-seeking attempt in individuals with recent onset non-affective psychotic disorders. The study compared those who sought help during the prodrome to those who sought help after psychosis onset in terms of sociodemographic and clinical characteristics, overall functioning, and occurrence of adverse events during their pathways to care. Of 168 individuals, 82% had their first help-seeking event after psychosis onset, and did not differ in terms of sociodemographic characteristics from prodrome help-seekers. When the first help-seeking episode started before vs after psychosis onset, it was mostly initiated by patients vs family members and led to a more rapid prescription of an antipsychotic once full-blown psychosis emerged (time to antipsychotic since psychosis onset= 21 vs 56 days,  $p=.03$ ). No difference in aversive events before enrollment into care was detected across groups. These findings can inform early detection efforts: targeting prodromal samples may leverage reductions in DUP and aversive pathways to care.

**Chapter 5** presents the secondary analysis of a pragmatic randomized clinical trial of a FES (Specialized Treatment Early in Psychosis [STEP]) vs usual treatment for criminal justice outcomes, as it is well known that new-onset psychotic disorders can interact with the criminal justice system during their pathways to care. This analysis found that FES is associated with reduced criminality. Of 117 patients with recent-onset psychosis, only a minority (14[12.0%]) had convictions prior to allocation. After adjusting for prior convictions, patients allocated to STEP were significantly less likely to be convicted of any crime (odds ratio, 0.19; 95%CI, 0.04-0.85;  $P = .03$ ) and non-significantly less likely to be sentenced to jail (odds ratio, 0.22; 95%CI, 0.05-1.01;  $P = .05$ ). Notably, there was a 76% reduction in the risk of committing a first crime for those assigned to STEP vs usual treatment (hazard ratio, 0.24; 95% CI, 0.07-0.86;  $P = .02$ ). Participants assigned to STEP also had a non-significantly lower 5-year first crime rate (5.00%; 95%CI, -0.51-10.51) compared with those assigned to usual treatment (17.54%; 95% CI, 7.66-27.42). These findings that need to be replicated in larger

samples offer an important insight on the positive social consequences of FES that can inform service design and policy.

**Chapter 6** is a viewpoint on the risk of underestimating the gender-specific needs of women in accessing FEP care and receiving the best quality of care in FES. The four factors that could represent barriers in accessing care are: 1) older age at onset, 2) clinical presentation characterized by prominent mood symptoms and overall better functioning, 3) less involvement of emergency departments in pathways to care, 4) gender role and caregiving burden (children and elderly). The three factors that should receive more attention in FES are: 1) sexual and reproductive health, as psychosis manifest during the period of greatest fertility for women, 2) promote access to preventative medicine (i.e. breast cancer screening), 3) offering trauma-focused interventions.

**Chapter 7** provides an overview of the findings and discusses them in the light of the evidence of the change in the perspective of care of first episode psychosis. It offers the population health approach as a new framework to design services for first episode psychosis that can benefit not only the single individual but the entire community. It also provided directions for future research.