

# Early intervention in psychosis

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# CHAPTER 10

IMPACT

## Impact

Psychotic disorders include schizophrenia(s) and affective psychoses (bipolar and major depressive with psychotic features). The peak age of onset is 22 years for males (McGrath et al., 2004); women have the first peak of incidence around 25 years, and an adjunctive peak in their late fifties (Jongsma et al., 2018). The lifetime risk of psychosis is 3.5% (Perälä et al., 2007), the world prevalence is 1% for schizophrenia (the most severe form of psychosis). Psychosis leads the societal cost and productivity loss per single individual within mental health disorders, and follows autism for non-health care cost per patient (Christensen et al., 2020).

The implementation of Early interventions for psychosis has proven its superior benefit compared with usual care by reducing the duration of untreated psychosis (DUP), and by providing targeted and multi-component interventions(Penttila et al., 2014). Despite the solid evidence of the effectiveness of EIS in shaping prognosis, the implementation of EIS is sparse and not homogeneous across countries and health systems.

We need a better understanding on what works for whom in terms of early interventions, in order to tailor early detection efforts, optimize treatment and measuring key outcomes.

## *Relevance*

Initiatives to reduce DUP have become of public health imperative(L. Dixon, 2017; Malla & McGorry, 2019). Converging evidence has demonstrated the positive effect of early detection efforts on improving short and long term outcomes for psychosis (up to 10 years later)(Ten Velden Hegelstad et al., 2013).

Given the high societal cost of psychosis(Christensen et al., 2020), it is necessary to define new approaches to translate research finding into real world practice.

This thesis seeks to provide insights on the effect of ED strategies, real world examples of the implementation of such services in community mental health services, and new information on pathways to care of individual with FEP.

The findings add important data to the scientific literature on FEP and strategies to reduce DUP.

This thesis has filled an important gap in the field of FEP: for the first time, it employed quantile regression to derive new information on the results of the TIPS study, it also used quantitative and detailed methods to understand key events along the pathways to care. This thesis offers evidence of the feasibility to implement a local functional FEP service within local community mental health services, underscored the positive effect of FEP service in reducing aversive outcomes (such as interactions with the criminal justice system), and the value of intervening earlier in the course of illness by showing that prodrome help seekers can benefit of a reduced DUP because already connected to the network of care.

Although a lot has been written on efficacy of strategies to reduce DUP, this thesis provides evidence of the importance of implementing such efforts to prevent a potentially disabling and costly disease.

### *Target groups*

Psychoses can have a potential disruptive impact on the life trajectory of a young adult individual, therefore it is imperative to adopt the best strategies to reduce such impact and improve outcomes. The findings of this thesis offer new methods and new perspective useful for the design of FES and for tailoring extant FES to the need of sub-groups of patients.

A wide array of professionals can benefit from the application of the finding of this thesis. Mental health providers working in the field can see the positive result of a feasibility project for the implementation of FES in extant community mental health settings: the positive results obtained in Modena province represented the great opportunity to show that it could be possible to offer the best treatment to all FEP in the catchment area.

Community leaders and service users, such as patients with FEP and their families, can see in this thesis the attempt to offer an optimistic approach to a potentially very disabling disease. While many questions about etiology and biomarkers of psychosis are still unanswered, this thesis provides evidence of the effectiveness of early detection interventions, and new insight on how to build better services tailored around patients' needs.

The population health approach described in this thesis offers a comprehensive framework to involve all the key players in the network of care in building a service for first episode psychosis. This perspective allows to counterbalance the importance which is usually given to medical care over all the other determinants of health and therefore several approaches to care. A key element of this approach is the involvement of stakeholders in the decision-making process, thus obtaining a consensus list of outcomes that respond to all the key players' values.

As outlined in this thesis, criminal justice outcomes for FEP can have not only clinical consequences but also societal consequences (e.g. reduction of crimes and costs related to legal procedures and incarceration). This is just one example of the importance of stepping outside the "comfort" of the clinical zone and move towards a broader population health approach for psychosis. This approach can also be applied to address the many challenges suffered by women with a first episode of psychosis. As outline in this thesis, if you are a woman, gender can represent a barrier preventing access to the best care for FEP. A first episode psychosis service that embraces a population health approach can work closely with health agencies, local communities, and key decision-makers to address these challenges by building an integrated supportive network of care.

Hopefully, a first episode psychosis service that looks at the imminent future should be able to collect data, interpret results, and then transform findings in actionable items that respond to stakeholders' values within a population health framework(Malla & McGorry, 2019; Srihari & Kane, 2019).

## *Innovation*

This thesis is innovative in several specific ways.

First, it showed that, by using a different approach, it is possible to quantify the results of early detection efforts, enabling a tailored planning of initiative to shorten duration of untreated psychosis.

Second, it showed the preliminary results of the implementation in Modena province of the Regione Emilia Romagna (Italy)' First Episode Psychosis Program; the ongoing Regional Program represents the only initiative currently operating in Italy aimed to offer a coordinated specialty care service to subjects diagnosed with first episode psychosis, within the public mental health system of care.

Third, it offers a glimpse on the key importance of the timing of the first help seeking episode in shaping the pathways to care of young individuals suffering from their first psychosis outbreak.

Lastly, it offers two examples of the application of a population health approach to FES: it shows that FES are superior compared to usual care in reducing criminal justice outcomes for subjects with FEP, moreover FES can play a key role in improving access to and quality of care for women with FEP by tailoring the service provided to their gender-specific needs.

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