Outcomes of treated and untreated mental disorders in the population and in clinical samples

Melissa Raven

Despite multitudinous claims about the adverse outcomes of untreated mental disorders, there is actually very little evidence of actual outcomes for untreated people. There is also limited evidence about the real-world outcomes of treated people. Rosenberg and Hickie (2013) noted the dearth of information about the outcomes of both treated and untreated Australians:

'Surprisingly little is known about the fortunate minority who do receive mental health care, the nature of their illnesses, and whether they get better as a result of their care. Even less is known about the 65 percent of Australians who have a mental illness but do not access national or state systems of care.' (p. 4)

The lack of evidence of the outcomes of untreated people is partly because they are relatively invisible to researchers and clinicians. Evidence is particularly lacking for untreated people in the population. Unlike clinical samples, they are difficult to identify and recruit into studies. Furthermore, because of the numerous claims and taken-for-granted assumptions that untreated people fare badly, many researchers see no need to investigate their actual outcomes.

Additionally, it is often asserted – despite the lack of evidence of outcomes – that it would be unethical to study untreated people prospectively:

'Accurate treatment effects could be established by randomized study designs comparing treated and untreated groups … but ethical constraints prevent randomizing depressed participants to remain untreated.' (Whiteford et al. 2013, p. 1570)

'Ethical considerations preclude following an untreated anxious control group for the purposes of comparison over time.' (Gibby et al. 2017, p. 219)

Although this ethical issue does not apply to cross-sectional population studies, there have nevertheless been few such studies of outcomes in treated versus untreated people. Most population studies either do not investigate treatment or do not report its impact.

In their review of the adult outcomes of child and adolescent mental illness, Costello & Maughan (2015) lamented:

'What is most remarkable in reviewing studies of the adult outcome of early affective disorders is, in fact, the minimal attention paid to effects of treatment; it is rarely included even as a potential mediator in long-term studies.' (p. 327)

Lewinsohn et al. (1998), reporting on the longitudinal Oregon Adolescent Depression Project, noted that 'To our knowledge this is the only study that has examined the long-term effects of outpatient treatment in a community sample' (p. 51).

More recently, Kessler (2011) confirmed that little had changed:

'One question suggested by the NCS results is whether early treatment of pure child-onset or adolescent-onset mental disorders would result in a reduction in the percentage of people who go on to develop comorbid mental disorders and, if so, whether it would also lead to a reduction in the persistence and adverse social consequences of primary mental disorders. We do not know the answer because no
large-scale controlled study has ever attempted to screen and treat a representative sample of children or adolescents with mental disorders and then follow them over time to document the long-term effects of treatment.' [italics added] (p. 227)

Three years later, Adler-Nevo et al. (2014) commented that 'surprisingly, little is known regarding the natural course of [childhood] anxiety disorders' (p. 771).

For adult mental disorders, the situation is similar. Sareen et al. (2013) discussed the lack of longitudinal evidence:

'There has been significant debate on whether diagnosis of a non-psychotic mental disorder indicates a need for treatment.... Although these issues have been hotly debated... to the best of our knowledge all of the studies in the literature that have fueled these deliberations have been cross-sectional. The longitudinal outcome of people who meet criteria for a non-psychotic DSM-IV diagnosis and do not receive treatment has not been investigated. It remains unknown to what extent untreated people with a diagnosis of a non-psychotic mental disorder need to be counted in estimates of treatment need.' [italics added] (p. 1942)

Here are some of the few studies about the outcomes of treated and untreated mental disorders, primarily in the population.


Wang (2004) found that people with untreated depression at baseline were less likely than treated people to have major depressive episode (MDE) six years later:

'In the 6-year follow-up period, 49.8% of participants with treated depression developed subsequent MDE; 28.7% of those with untreated depression reported MDE.' (p. 543)

  • 146 (23.9%) had used MH services at baseline and subsequently had MDE
  • 146 (24.1%) had used MH services at baseline but no subsequent MDE
  • 94 (14.9%) had not used MH services but reported subsequent MDE
  • 223 (37.1%) had no subsequent MDE but had not used MH services (pp. 545-546)

However, Wang's findings were misrepresented by Watson Wyatt Canada ULC (2007) 'Mental Health in the Labour Force: Literature Review and Research Gap Analysis', which reported the opposite:

'Wang (2004) also found greater improvement in longitudinal clinical outcomes among persons treated for depression than among those not treated for their depression.' (p. 112)

As discussed in my submission titled 'Productivity Commission inquiry must include fact-checking', such misrepresentation is common in the mental health arena.

Wang (2004) was also cited by Whiteford et al. (2013) 'Estimating remission from untreated major depression: a systematic review and meta-analysis'. However, it was excluded from their meta-analysis on methodological grounds, precisely because it was so different from the other studies. It had a much longer follow-up duration, and it was the only community study, making it by far the most relevant study in relation to outcomes of untreated people in the population.
Apart from being misrepresented and omitted from a meta-analysis, Wang (2004) has been largely ignored. This is not surprising, because it does not fit with common beliefs about the need for treatment. However, it is far from the only study that has found better outcomes for untreated people.

Wang et al. (2016) Common Mental Disorder Diagnosis and Need for Treatment are Not the Same: Findings from the NEMESIS Study

Using data from the Netherlands Mental Health Survey and Incidence Study (NEMESIS), Wang et al. (2016) found that untreated people with a past-year depressive, anxiety, substance-use (DAS) disorder in the past year were significantly more likely than treated people to have good outcomes:

'Individuals with a past-year DAS disorder who received no prior lifetime treatment were significantly more likely than those who received treatment to: (1) remit from their index disorder(s) without subsequent treatment, (2) be free of comorbid disorders, and (3) not have attempted suicide during follow-up (remission rates: 68.5 versus 32.0 %, respectively, p < 0.001)…. Results show that many people who meet criteria for a DAS disorder remit without treatment.' (p. 1)

Sareen et al. (2013) Common mental disorder diagnosis and need for treatment are not the same: findings from a population-based longitudinal survey

Analysing data from the US National Epidemiologic Survey of Alcohol and Related Conditions (NESARC), a nationally representative sample, Sareen et al. (2013) found better outcomes of depressive, anxiety and substance use (DAS) disorders among untreated people:

'Individuals with a DAS disorder who had not previously received any treatment were significantly more likely than those who had been previously treated to have remission of their index disorder(s) without subsequent treatment, to be free of co-morbid disorder(s) and not to have attempted suicide during the 3-year follow-up period (50.7% v. 33.0% respectively, p<0.05)… Individuals with an untreated DAS disorder at baseline have a substantial likelihood of remission without any subsequent intervention.' (p. 1941)

Jorg et al. (2012) Puzzling Findings in Studying the Outcome of "Real World" Adolescent Mental Health Services


In the Netherlands, the longitudinal TRacking Adolescents' Individual Lives Survey (TRAILS) found 'puzzling' better outcomes over six years in untreated adolescents. Jorg et al. (2012) reported:

'follow-up problem scores of non-MHS-users [adolescents who did not use mental health services] decreased while the problem scores of MHS users remained high. When taking into account future MHS (non)use, it appeared that problem scores decreased with limited MHS use, albeit not as much as without any MHS use, and that problem scores with continuous MHS use remained high. Data validation showed that
using a different outcome measure, multiple assessment waves and multiple imputation of missing values did not alter the results.' [italics added] (p. 1)

'The benefits of MHS are questionable.' (p. 1)

'MHS use may support adolescents in dealing with emotional and behavioural problems but also give them the impression that they are needy and weak, incapable of solving their own problems.' (p. 8)

In a more recent conference abstract, Jorg et al. (2017) reported that further analysis of the TRAILS six-year follow-up data showed that the differences in outcomes could not be attributed to differences in pre-treatment trajectories:

'Treated adolescents more often had a (severe) diagnosis than untreated adolescents. Pre-treatment trajectories barely differed between treated and untreated adolescents. Treatment predicted an increase in follow-up problem scores, regardless of the number of sessions.' (p. S131)

**Lewinsohn et al. (1998) Treatment of adolescent depression: frequency of services and impact on functioning in young adulthood:**

In the Oregon Adolescent Depression Project, Lewinsohn et al. (1998) reported that treated boys were more likely to relapse than untreated boys, and that this could not be explained by differences in baseline severity:

'Those who had received treatment were not less likely to experience a new episode of depression during young adulthood. Actually, the trend was in the opposite direction, and formerly depressed boys who had received treatment were more likely to have relapsed. Our attempts to account for this finding in terms of initial severity differences between those who received and those who did not receive treatment were not borne out' [italics added] (p. 51)

**Adler-Nevo et al. (2014) Eight years later: outcomes of CBT-treated versus untreated anxious children**

In Canada, Adler-Nevo et al. (2014) found that children with untreated anxiety disorders improved more than children who received cognitive-behaviour therapy:

'Long-Term Follow-Up (LTFU) studies are difficult to conduct and generally rare, but the interest in the LTFU of treated anxious children is just starting to emerge. This is the first long-term study (i.e., follow-up >2 years) to compare youth treated for their anxiety with CBT during childhood versus those who were not treated (thus controlling for confounders). Our results are surprising. Anxiety levels (according to child) were found to be significantly lower in the nontreatment group (a group of children who were not treated with CBT) at LTFU as compared to initial assessment, but anxiety levels in the treatment group were found to be insignificantly higher. Incidence of anxiety diagnosis was significantly lower in both groups, dropping to 50% of patients. In addition, the MASC subcategories of harm avoidance and social anxiety for the nontreatment group were significantly lower at LTFU according to child measures but not parental measures. Both groups showed a significant improvement in functioning at LTFU.' [italics added] (pp. 770-771)


Melissa Raven is a psychiatric epidemiologist and policy analyst in the Critical and Ethical Mental Health group at the University of Adelaide.