



Health and Care
Research Wales
Evidence Centre
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Ymchwil Iechyd a
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A rapid review of the effectiveness of smoking cessation interventions for people with anxiety and/or depression living in the community

July 2024

Review conducted by **Public Health Wales**.

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EXECUTIVE SUMMARY

What is a Rapid Review?

Our rapid reviews use a variation of the systematic review approach, abbreviating or omitting some components to generate the evidence to inform stakeholders promptly whilst maintaining attention to bias.

Who is this Rapid Review for?

The research question was suggested by Welsh Government Health Improvement.

Background / Aim of Rapid Review

The Welsh Government aims to reduce smoking prevalence from the current rate of 13% to below 5% of the population by 2030. People with mental health conditions have a higher rate of smoking prevalence and are less likely to access smoking cessation services. Evidence shows that smoking cessation in this population decreases symptoms, improves positive mood and quality of life. This rapid review aimed to identify and synthesise the evidence for the effectiveness of smoking cessation interventions in people with anxiety and/or depression living in the community.

Results

Recency of the evidence base

- The literature searches were conducted in March 2024, the included study reports were published between 2008 and 2023, nine were published since 2019.

Extent of the evidence base

- Eleven primary studies from 15 reports were included in the rapid review: 10 RCTs, two of which were pilot RCTs, and one quasi-experimental pilot study.
- Studies were conducted in the USA (n=6), Spain (n=1), France (n=1), Netherlands (n=1), and two studies were conducted across the EU and USA.
- Studies investigated pharmacological (Varenicline, Bupropion, nicotine replacement therapy), psychological (behavioural activation, contingency management, mood management, smoking cessation counselling), and aerobic exercise interventions. Most interventions were conducted in-person, with two studies using remote delivery via mobile applications or telephone.
- Outcomes included various measures of smoking cessation, mental health symptoms, adverse events and cost-effectiveness.

Key findings and certainty of the evidence

- Overall, the evidence of effectiveness of smoking cessation interventions for those with anxiety and depression appears to be inconsistent.
- Taking into account the overall methodological quality, variability of outcome measures used and consistency of study findings, it was difficult to make direct comparison between the different studies included. Therefore, we have very low certainty across all the outcome measures identified. This means that the true effect is probably different from the estimated effect.

- There is some evidence to suggest that psychological smoking cessation interventions can increase abstinence in people with depression, however the impact on mental health outcomes appeared to be mixed.
- There is some evidence to suggest that pharmacological smoking cessation interventions can increase abstinence. However, they appeared to have no impact on mental health outcomes and no consistent impact on adverse events for people with anxiety and depression.
- Evidence shows the impact of exercise interventions had mixed findings on abstinence rates and no impact on mental health outcomes in people with depression.
- There is some evidence suggesting multicomponent pharmacological and psychological smoking cessation interventions can increase abstinence rates and reduce adverse events in people with depression. However, the impact on mental health outcomes appears mixed.
- There is limited evidence supporting the effectiveness of multicomponent exercise and psychological smoking cessation interventions but no impact on abstinence rates or mental health outcomes in people with depression.
- There is very limited evidence suggesting psychological smoking cessation interventions for people with depression may be cost-effective.

Research Implications and Evidence Gaps

- No UK studies were identified therefore it is unclear whether findings are generalisable to the UK.
- No studies applying interventions at critical touchpoints within smoking cessation or mental health services were identified.
- Only one study assessed the cost-effectiveness of a smoking cessation intervention.
- Only one study assessed a smoking cessation intervention in participants with anxiety.
- Most studies included in this review were judged to be of low quality.
- Most studies recruited participants from the general population, therefore it is unclear whether participants were engaged with mental health services.
- Further high-quality UK-based research is needed to better understand the effectiveness of smoking cessation interventions for people with anxiety and depression.

Policy and Practice Implications

- There is limited high quality evidence on smoking cessation interventions for those with anxiety or depression, therefore cautious consideration of findings is required if this evidence is used to inform future interventions.
- Although low quality evidence supports the use of pharmacological, psychological, and multicomponent pharmacological and psychological smoking cessation interventions to increase abstinence in people with depression.
- This review identified (limited/low quality) Varenicline as potentially effective for smoking cessation in the population group of interest. In light of recent All Wales Medicine Strategy Group recommendations to allow Cytosine, which has similar action to Varenicline, this may be of particular interest.

Economic considerations

- Smoking is a considerable public health issue that incurs significant economic costs. The estimated economic cost of smoking in people with mental health disorders in the UK is £3.5 billion per annum.
- There is limited economic evidence on the impact of implementing smoking cessation interventions for individuals living with depression and/or anxiety.

A summary of findings and the certainty of evidence has been assessed using an approach adapted from the GRADE evidence profile (Guyatt et al, 2011), which has been adapted for the purpose of this review.

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