Appendix 5: Detailed analysis of the 2008 Gilbody systematic review: examining the impact of screening tools on depression outcomes

As suggested by several external reviewers of the guideline, we examined the 2008 Gilbody review[1] to determine whether any additional data could be drawn from it regarding the benefits or harms of depression screening. The results of our analysis were as follows:

In contrast to the 2012 systematic review on depression screening conducted for the Canadian Task Force on Preventive Health Care (CTFPHC),[2] which examined only direct evidence on the effectiveness of screening, the Gilbody review examined indirect evidence. Gilbody et al. analyzed 16 randomized controlled trials (RCTs) conducted in non-mental health settings that used case-finding or screening instruments for depression and assessed their impact on clinical outcomes. The review found no evidence that screening instruments have an effect on depression clinical outcomes (standardized mean difference –0.02, 95% CI –0.25 to 0.20).

Nineteen papers were published on the 16 RCTs included in the Gilbody review. Sixteen of the nineteen papers were not considered further because of the following reasons:

- The studies were published before 1994, which is the start date of the CTFPHC search. The CTFPHC set the start date of its search to 1994, considering that publications before 1994 would have been included in other meta-analyses, or in references of more recent publications.
- The population being studied included people with known depression, those with a history of depression or people receiving treatment for depression, which is contrary to the objective of screening (an intervention meant to be used to identify new cases of depression in an asymptomatic population).
- The outcome or setting was outside of the scope of the guideline.
- The studies included numerous combinations of different management and treatment interventions (e.g., case management support, training for clinicians, educational sessions for patients, scheduled follow-up visits, etc.), which made it difficult to draw any particular conclusion about the impact that screening had on the outcomes.

Three RCTs[3–5] included in the Gilbody review merited further analysis. One RCT[2] showed higher recovery rates at 3 months among participants with depression who were screened (48% intervention v. 27% control, $p = 0.03$), but the mean improvement of depression symptoms was similar to that among participants who were not screened (1.6 intervention v. 1.5 control, $p = 0.21$). One limitation of this study is that all participants underwent a diagnostic interview at baseline, which raised awareness among participants about depression symptoms and therefore made them more likely to report symptoms at later stages of the study. Put differently, this trial compared screening with intervention to screening without intervention. Also, the analysis of clinical outcomes was only calculated for patients who were depressed at baseline and a random sample of participants without depression, and one site did not participate in the follow-up.

Another RCT[3] showed that providing the results of screening to clinicians without any further instructions did not influence depression scores. At 6 weeks, the mean General Health Questionnaire (GHQ) score was higher in the group where screening results were provided to the clinician (27.2 disclosed results v. 26.6 withheld results, $p = 0.04$). There were no statistically significant differences between groups at 3 months and 6 months. An important limitation of this study is that all participants were screened with the GHQ-12 at baseline before the consultation with their clinician, which could have led to bias: all screened participants, whether part of the intervention or control group, are more aware of depression symptoms and are more likely to report them if asked to complete a screening questionnaire.

The third RCT[4] showed that disclosing cases of unrecognized depression to general practitioners had no effect on clinical outcomes at 6 or 12 months. Again, an important limitation of this study is that all participants completed the Beck Depression Inventory before the consultation with their clinician, which could have led to bias.

Evidence from these 3 RCTs suggests that routine screening does not lead to improved clinical outcomes in the average-risk population. These results led us to conclude that even if these 3 RCTs had been included in the literature review,[2] our recommendations would not have changed.

References

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