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Suicidal ideation or non-suicidal self-harm? A mismatch between the DSM-IV criterion and PHQ-9 item nine

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Running title: Problems with the PHQ-9 item nine

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International guidelines recommend routine screening for emotional distress in people with diabetes so that common problems, including depression, can be detected and treated. The 9-item Patient Health Questionnaire (PHQ-9) is a commonly used screening tool. According to its developers, the PHQ-9 constitutes “the actual nine criteria upon which the diagnosis of DSM-IV [Diagnostic and Statistical Manual of Mental Disorders 4th Edition] depressive disorders is based” [1]. We query this claim, as item nine does not assess suicidal ideation alone.

The PHQ-9 asks for the frequency with which respondents have experienced the nine diagnostic symptoms of depression over the past two weeks (0=not at all; 3=almost every day). Items are summed to form a total score (range: 0-27). Item nine is intended to assess suicidal ideation, defined in the DSM-IV as “recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide”. However, the item wording (“thoughts that you would be better off dead or of hurting yourself in some way”) reveals a mismatch with the diagnostic criterion. ‘Thoughts of self-harm’ is not a diagnostic criterion for depression.

This poor wording causes interpretation difficulties, illustrated here using Australian [2] and Dutch [3] Diabetes MILES Study survey data. PHQ-9 data from these datasets (N=7019) demonstrates that 10% (n=701) of participants endorsed item nine (item score >0) but, of those, 29% (n=206) did not meet the PHQ-9 criteria for subthreshold depression (total score ≥10; Table 1). If item nine is interpreted as an assessment of suicidal ideation only, this result seems surprising. It is possible that these people have suicidal thoughts as a result of other conditions or disorders (e.g. personality disorder). However, it seems more likely that many are responding to the “hurting yourself in some way” portion of the item, and are having non-suicidal thoughts of self-harm (e.g. cutting). This may explain the unexpectedly large size of this group. Self-harm is not exclusively associated with mental illness, and occurs in nonclinical populations [4].

The concerns outlined here apply to use of the PHQ-9 in any population. Indeed, authors outside the diabetes field have noted some of these issues [5, 6]. Clinicians need to be aware of the limitations of the PHQ-9 so that these can be accounted for when interpreting patient responses, to minimize over-estimation of depressive symptoms and suicidal ideation. One possible solution to the problems identified here would be to use the PHQ-8 (consisting of the first eight items of the PHQ-9) as an alternative, validated [7] depression screener.
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Conflicts of interest

No potential conflicts of interest relevant to this article were reported.

Author contributions

JB and GN conceptualised this letter. GN performed the data analysis and JB wrote the first draft of the letter. FP and JS provided important intellectual input into the content of the letter. All authors approved the final version. The Diabetes MILES Study is an international collaborative conceptualised and led by JS and FP, who take overall responsibility for the study.
References

Table 1. Number (%) of participants meeting/not meeting criteria for depression in the group endorsing PHQ-9 item 9, stratified by diabetes type

<table>
<thead>
<tr>
<th>Endorsing PHQ-9 item 9*</th>
<th>Type 1 diabetes n=284</th>
<th>Type 2 diabetes n=417</th>
<th>Total n=701</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meet criteria for depression#</td>
<td>199 (70)</td>
<td>296 (71)</td>
<td>495 (71)</td>
</tr>
<tr>
<td>Do not meet criteria for depression^</td>
<td>85 (30)</td>
<td>121 (29)</td>
<td>206 (29)</td>
</tr>
</tbody>
</table>

*Item score of >0. #PHQ-9 total score of ≥10 (possible score range 0-27). ^PHQ-9 total score of <10.