Monitoring a dashboard with patient-reported outcome measurements by healthcare providers subsequently increases patients’ adherence to patient reported outcome measurements

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Background
Measuring and discussing patient reported outcomes (PROs) can contribute to:
• Improved quality of medical consultations
• Better patient preparation
• More shared decision making between patient
• Higher patient satisfaction with the consultation

However, not all patients fill out their PROMs before consultation, and not all healthcare providers check completed PROMs in preparation of or during consultation. We propose that when healthcare providers discuss PROM results during consultation, patients adhere better to filling out PROMs.

Methods
Patients from the Erasmus MC University Medical Center (Rotterdam, the Netherlands) are requested to fill out one or more electronic PROMs (ePROMs) one week before their consultation in a secured online environment. ePROM results are visualized in dashboards in which scores are plotted over time, accessible for healthcare providers in the electronic patient record (EPR) (figure 1). Dashboard views were logged in the EPR from October 2022 to June 2023. These views were matched with consecutively sent out and filled out PROMs. A chi-square test was performed on dashboard viewed (yes/no) with consecutive PROMs filled out (yes/no). Further, the odds ratio (OR) of filling out consecutive PROMs after a dashboard has been viewed by the healthcare provider was calculated.

Results

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Consecutively filled out PROMs No, n</th>
<th>Yes, n</th>
<th>No, n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two-by-two table</td>
<td>Consecutively filled out PROMs No, n</td>
<td>Yes, n</td>
<td>No, n</td>
</tr>
<tr>
<td>Dashboard viewed No, n</td>
<td>5842</td>
<td>4383</td>
<td>164</td>
</tr>
<tr>
<td>Yes, n</td>
<td>164</td>
<td>385</td>
<td></td>
</tr>
<tr>
<td>Chi-square test</td>
<td>χ²&lt;0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odds Ratio (95% CI)</td>
<td>3.13 (2.6 – 3.8)</td>
<td></td>
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</tr>
</tbody>
</table>

Conclusion
• Positive effect of using a dashboard on consecutive adherence in filling out PROMs.
• Dashboard viewed as a proxy for discussing PROMs with the patient.

Future research
• Observe dashboard use in the consultation room
• Be aware of role and responsibility in addressing PROMs during consultation

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