

Abstract




There are currently no validated patient-reported outcome measures (PROMs) to specifically evaluate quality-of-life outcomes for patients who have suffered bony facial trauma. Our goals are the following:

- 1) Investigate functional and psychosocial concerns that are self-identified as important among patients following bony facial trauma.
- 2) Formalize these factors into an appropriate patient-reported outcome measurement tool that can be utilized clinically.

Methods and Materials

We performed semi-structured interviews with 10 providers at the University of Virginia and other academic institutions who are experts in the field of facial trauma. Providers were asked about functional and psychosocial concerns that patients with bony facial trauma may experience. Responses were then used to create a preliminary PROM instrument, which was programmed for self-administration through the Qualtrics online survey platform. Subsequent semi-structured interviews with 15 patients affected by bony facial trauma were conducted during the cognitive debriefing portion. Patients completed the questionnaire and their responses provided focus to the finalized PROM survey.

Results

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|--|---|--------------------------------------|---|------------------------------------|---------|---------------|-------------|---|--|--|
| 1) Have you had issues with your vision?
a. If yes, how severe are your vision issues? | Mild
<input type="checkbox"/> | Moderate
<input type="checkbox"/> | Significant
<input type="checkbox"/> | Severe
<input type="checkbox"/> | | | | | | |
| 2) Have you experienced nasal blockage?
a. If yes, how severe is your nasal blockage? | Mild
<input type="checkbox"/> | Moderate
<input type="checkbox"/> | Significant
<input type="checkbox"/> | Severe
<input type="checkbox"/> | | | | | | |
| 3) Have you experienced limited jaw movement?
a. If yes, how severe is your limited jaw movement? | Mild
<input type="checkbox"/> | Moderate
<input type="checkbox"/> | Significant
<input type="checkbox"/> | Severe
<input type="checkbox"/> | | | | | | |
| 4) Have you had numbness over the area of your chin, jaw, cheeks, or forehead?
a. If yes, how severe is the facial numbness? | Mild
<input type="checkbox"/> | Moderate
<input type="checkbox"/> | Significant
<input type="checkbox"/> | Severe
<input type="checkbox"/> | | | | | | |
| Have you noticed asymmetry of your face? | Mild
<input type="checkbox"/> | Moderate
<input type="checkbox"/> | Significant
<input type="checkbox"/> | Severe
<input type="checkbox"/> | | | | | | |
| 5) If yes, how severe is the facial (Asymmetry is when one side of your face looks different from the other side)
a. If yes, how noticeable is your facial asymmetry? | Mild
<input type="checkbox"/> | Moderate
<input type="checkbox"/> | Significant
<input type="checkbox"/> | Severe
<input type="checkbox"/> | | | | | | |
| 6) Have you experienced ongoing pain related to your facial injury?
a. If yes, how severe is the pain on a scale of 1-10, with 10 being the most severe? | <table border="0"> <tr> <td>No pain</td> <td>Moderate pain</td> <td>Severe pain</td> </tr> <tr> <td colspan="3">  </td> </tr> </table> | | | | No pain | Moderate pain | Severe pain |  | | |
| No pain | Moderate pain | Severe pain | | | | | | | | |
|  | | | | | | | | | | |
- The next set of questions are related to mental or social issues you may be experiencing **because of your facial injury.**
- | | | | | |
|---|------------------------------------|---------------------------------------|--|------------------------------------|
| 7) Have you not wanted to spend time with family or friends?
a. If yes, how frequently? | Rarely
<input type="checkbox"/> | Sometimes
<input type="checkbox"/> | Frequently
<input type="checkbox"/> | Always
<input type="checkbox"/> |
| 8) Have you had difficulties with completing household or personal tasks?
a. If yes, how frequently? | Rarely
<input type="checkbox"/> | Sometimes
<input type="checkbox"/> | Frequently
<input type="checkbox"/> | Always
<input type="checkbox"/> |
| 9) Have you felt depressed?
a. If yes, how frequently do you feel depressed? | Rarely
<input type="checkbox"/> | Sometimes
<input type="checkbox"/> | Frequently
<input type="checkbox"/> | Always
<input type="checkbox"/> |
| 10) Have you felt anxious?
a. If yes, how frequently? | Rarely
<input type="checkbox"/> | Sometimes
<input type="checkbox"/> | Frequently
<input type="checkbox"/> | Always
<input type="checkbox"/> |

Discussion

Using a standardized approach, we developed a patient-reported outcome measure specific to bony facial trauma patients by performing semi-structured interviews with content experts as well as cognitive debriefing interviews with patients. The final PROM included functional and psychosocial concerns relevant to the bony facial trauma population, such as vision issues and difficulty completing personal tasks. Future directions of the study will include a multi-institution validation phase with a larger volume of patients

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