

Analysis of Pain-Related Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Free-Text Responses

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To improve patients' experience regarding pain management, hospitals seek patient feedback using ratings of three pain-related questions on the HCAHPS survey. Free-text comments have been used successfully in other service industries¹ to improve consumer satisfaction, but there is a paucity of data in healthcare literature. In this observational study, we sought to understand patients' perception of pain via free-text comments.

We analyzed 365 unique free-text comments filtered by relevant words— control, comfort, ignore, coordination, efficient, communication, manage, pain—from surveys that were administered to adult inpatients discharged from NewYork- Presbyterian Hospital/Weill Cornell Medicine from April 2016-July 2017. We categorized each comment into four groups. Overall sentiment (positive, negative, neutral), operational efficiency (hospital staff's role, shift, and department location), qualitative elements, and patient perception of clinical intervention. The latter two, graded on a 1-5 scale, included communication, respect, delays, and the perception of meaningful improvement, appropriate intervention, or adverse events, respectively.

Of 365 comments, 73% were negative, 25% positive and 2% neutral (n=365). Of 51 shift-negative comments, 80% were related to night shift (n =41). The majority of negative comments by location (n=70) were attributed to the emergency room (ER). Out of 293 comments related to communication, 77% (n=225) had the lowest rank (a score of 1 or 2 out of 5). 71% (170 out of 241) of comments related to delays were specific to pain management.

Our results identified unmet patient needs related to pain management and can be used to design targeted, patient-centered interventions to improve pain management. Further research is needed to determine association between individual free-text responses and age, gender, race, ethnicity and co-morbid conditions.

¹ Han, H. J., Mankad, S., Gavirneni, N., & Verma, R. (2016). What guests really think of your hotel: Text analytics of online customer reviews. *Cornell Hospitality Report*, 16(2), 3-17.