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Evaluating opportunities for improved outpatient satisfaction in an interventional spine clinic: An analysis of Press Ganey® Outpatient Medical Practice Survey responses

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ABSTRACT

Objective: The Press Ganey® Outpatient Medical Practice Survey (PGOMPS) is a frequently used patient satisfaction metric comprised of provider-specific and non-provider-specific questions. The PGOMPS results are used by many administrators to improve the patient experience and are linked to physician reimbursements in some cases. This study aimed to determine the frequency of patient satisfaction for the provider-specific and non-provider-specific PGOMPS questions and their association with the likelihood of a patient recommending their provider's clinic.

Design: A retrospective review.

Methods: Adult patients attending a university interventional spine clinic between January 2014 and December 2019 were included in this study. We retrospectively reviewed prospectively collected patient satisfaction using PGOMPS. Data was collected within 30 days after an outpatient interventional spine clinic appointment. Satisfaction was defined as receiving a perfect total score. The frequency of perfect scores for each question was calculated. Chi-square (goodness-of-fit) analysis was performed between the number of patients who gave perfect satisfaction on all provider specific questions and the number of patients who gave perfect satisfaction for non-provider scores irrespective of their provider specific scoring. Spearman correlation between individual PGOMPS questions and the likelihood to recommend the practice question were calculated.

Results: 53,118 patients patient encounters were included. 2078 (66.65%) provider-specific questions received perfect satisfaction versus 1121 (35.95%) with perfect satisfaction for non-provider specific questions ($p < 0.001$). The five questions most likely to receive perfect satisfaction were: physician spoke using clear language (92.90%), physician friendliness/courtesy (82.74%), cleanliness of the practice (82.67%) likelihood to recommend practice (81.27%), and likelihood to recommend physician (80.96%). The 5 least likely were: convenience of office hours (64.30%), wait time (63.00%), ease of getting on phone (60.77%), information about delays (60.19%), and ability to get desired appointment (58.92%). Of the 10 questions that had the strongest correlation with likelihood to recommend the practice 7 were related to the physician. None of the 10 questions with the least correlation were related to the physician.

Conclusions: Most interventional spine patients are satisfied with their providers and less satisfied with non-provider-related aspects of their encounters. Provider-specific factors carry the greatest influence in the patient's perceived satisfaction with the experience as a whole and likelihood to recommend the practice.

1. Introduction

Increasing focus has been placed on measuring and reporting patient satisfaction over the past decade. This is partly because the Patient Protection and Affordable Care Act has enabled Medicare to connect reimbursements to measurements of the patients' care experience [1]. Patient satisfaction is often measured by a patient answering established questions regarding their experience during a clinical encounter. Patient

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satisfaction research has shown that many non-provider-specific factors are associated with lower patient satisfaction. Examples include: education level [2, 3], psychological status [4], comorbidity status [5], insurance status [6], sex [7–10], race [2,9–12] and age of patients [6, 8, 13, 14], setting/location of the patient encounter [2, 9, 15, 16], the length of time between visit and submission of the survey [5], and distance traveled to the clinic [13–17].

The Press Ganey® Outpatient Medical Practice Survey (PGOMPS) is commonly used to measure patient satisfaction throughout many hospitals and clinics throughout the United States, and the results can impact physician reimbursement [18–21]. Like other satisfaction questionaries, the PGOMPS questions can also be categorized into provider-specific and non-provider-specific questions. Approximately half of the survey is composed of questions that directly relate to the provider with additional questions that evaluate other components of the encounter: factors related to nursing and staff, access to care, staff, lab work, and the office in general [22]. The majority of the published studies evaluate patient satisfaction with the overall PGOMPS score. Attempts to evaluate individual PGOMPS questions or determine whether provider-specific or non-provider specific questions are correlated with patient satisfaction in the literature are sparse. Delineating and identifying variables that may be responsible for patient dissatisfaction may be helpful to clinicians and health care administrators to identify specific variable(s) that could improve patient satisfaction. This would be specifically beneficial for the interventional spine patient population. Previous work has demonstrated that patients with spine pathology tend to report lower satisfaction compared to other patient populations [23, 24]. Further, this information has never been reported specifically in the interventional spine patient population.

The purpose of the study was to determine the frequency of patient satisfaction for the provider-specific and non-provider-specific PGOMPS questions and their correlation with the likelihood of a patient recommending their provider's interventional spine clinic. Understanding these results will aid health care administrators and providers in quality improvement efforts to enhance the patient experience.

2. Materials and methods

The current study received IRB approval (IRB 00101230). Consecutive patients who prospectively completed the PGOMPS between January 2014 to December 2019 at our interventional spine clinic were retrospectively reviewed. Only PGOMPS were included because the institution contracted with Press Ganey Corporation to measure and report patient satisfaction scores in the outpatient setting.

2.1. Data collection

Consistent with institutional practice, after a clinical visit, each patient was emailed a link to a PGOMPS questionarrie. Patients received the survey after any visit, new or follow-up. A reminder email was sent if the survey remained unsubmitted after 5 business days. The survey was accessible for the patients for 30 days after receiving the link.

Each PGMOPS measures multiple aspects of care. The provider specific questions include: physician time spent with patient, confidence in physician, physician explained problem or condition, physician friendliness/courtesy, physician concern for patient questions/worries, physician follow-up care instruction, physician effort to include patient in decisions, physician information about meds, physician spoke using clear language, and likelihood to recommend the physician. In our study, we defined the remaining questions as non-provider-specific questions. Examples of non-provider specific questions include: staff protected your safety, nursing concerns, ability to get the desired appointment, and wait time. These questions relate to other areas of the visit including: moving through your visit, access of care, nursing, and personal issues (such as safety and privacy and overall care). Wait time is defined as the amount of time from when the patient enters the clinic until when they are seen by their provider.

2.2. Statistical analysis

PGOMPS questions are measured on a 5-point Likert scale, with 1 indicating very poor and 5 indicating very good. The responses are converted to a 100-point scale and the total score is reported on a 100-point scale. Given the high ceiling effect of the survey [13, 22, 25], we defined satisfaction as receiving a perfect (100) score. The frequency of patients who gave a perfect score for each individual question was calculated. Chi-square (goodness-of-fit) analysis was performed between the number of patients who gave perfect satisfaction on all provider specific questions and the number of patients who gave perfect satisfaction for non-provider scores irrespective of their provider specific scoring. Finally, we calculated Spearman's correlation coefficient matrixes between specific PGOMPS questions and the likelihood to recommend the practice question were calculated. The likelihood to recommend the practice was selected because it has previously been shown to be a reliable proxy for overall satisfaction [26]. Likelihood of recommending practice was selected over likelihood of recommending provider given that previous literature has indicated non-provider related factors such as wait time and ease of scheduling an appointment have a significant impact on overall patient satisfaction [22, 27]. This assumes that a patient's likelihood to recommend the practice to family and friends indirectly infers how satisfied they were with their experience.

3. Results

A total of 3118 patient encounters during our study period were identified. The mean patient age was 59 (±15) and our cohort was 63% female (Table 1).

A total of 1071 (34.3%) patients reported perfect satisfaction on the Total Score. The frequency of patients who reported perfect satisfaction to all provider-specific questions was 66.65% (N = 2078). The frequency of patients who reported perfect satisfaction on all non-provider-specific questions was 35.95% (N = 1121). Chi-square analysis demonstrated that the proportion of patients reporting satisfaction with provider-specific elements of their visit was significantly greater than that for the non-provider elements of their visit ($p < 0.001$).

An illustration of the frequency of perfect satisfaction with each specific PGOMPS question is reported in Table 2. Of the top-scoring 10 questions, 6 were related directly to the provider: physician spoke using

Table 1
Patient demographics.

Variable	Mean/N	(Stndard Deviation/%
Age	58.9	14.8
Race/Ethnicity		
White	2796	89.7%
Hispanic	145	4.7%
Asian	54	1.7%
Black	19	0.6%
Native American	16	0.5%
Hawaiian	6	0.2%
Other	82	2.6%
Marital Status		
Married/Life Partner	1968	63.1%
Single	549	17.6%
Previously Married	510	16.4%
Not Disclosed	91	2.9%
Employment Status		
Employed	1424	45.7%
Disabled	128	4.1%
Not Employed	324	10.4%
Retired	1213	38.9%
Student	16	0.5%
Not Disclosed	13	0.4%
Residential Status		
Instate	2804	89.9%
Out of State	314	10.1%

clear language, friendliness/courtesy of physician, likelihood to recommend physician, confidence in physician, physician effort to include you in decisions, physician concern for your questions/worries and physician explained problem or condition.

The 10 questions patients were least satisfied with related to the practice in general: nurse concern for patient, how well nurse listened to you, lab test wait time, ease of contacting the clinic, ease of scheduling appointment, convenience of office hours, wait time, ease of getting on phone, information about delays, ability to get desired appointment. The provider-specific questions patients were least satisfied with were: physician information about meds, physician time spent, and physician's instructions about follow up.

Spearman's correlation for specific questions with the likelihood to recommend the practice to others is presented in Table 3. Overall, provider-specific questions demonstrated a higher correlation with a patient's likelihood of recommending the practice to others than questions related to the office and nursing staff, access of care, and moving through the visit. Specifically, seven of the 10 questions with the strongest correlation were related to the provider: physician likelihood to recommend, physician confidence, physician effort to include you in decisions, physicians concern for your questions/worries, physician explained problem or condition, physician friendly/courteous and physician instructions regarding follow care.

4. Discussion

Our primary finding is that patients were more likely to report perfect satisfaction with provider-specific Press Ganey questions than for questions not specifically related to the provider. These included questions pertaining to additional aspects of their clinic visit including ability to get on the phone, ease of scheduling, and staff issues. Likewise, our study also demonstrated that compared other elements of the survey, provider-specific questions had a stronger correlation with the likelihood of a patient to recommend the practice to others. Our findings are consistent with previous work performed in plastic and orthopaedic surgery which demonstrated a statistically significant positive correlation between provider-specific questions and the "likelihood to recommend the practice to others," [26, 27]. Similar findings have also been demonstrated for pediatric orthopedic, dermatology and neurology clinics [28–30].

Our findings are consistent with previous literature that has shown wait time to impact patient satisfaction scores significantly [22, 23, 27, 31, 32].

Concordant with previous literature, our study shows that overall, patients are satisfied with their providers [26,28–30]. However, understanding what specific factors patients perceive to be important in their care can help providers and health care leaders implement strategies to improve the patient experience with aspects not related to the provider (Table 4) and aspects directly related to the providers (Table 5). The present study highlights potential areas for improvement where patients reported lower levels of satisfaction. Specifically related to the provider, the 3 questions least likely to receive perfect satisfaction were "Time spent with physician," "physician information about medications," "physician instructions on follow-up care." Understanding how these results compare with the Spearman's correlation can be additionally enlightening. For example, although instructions about follow-up care were the provider-specific question demonstrating the lowest satisfaction rate, it had one of the strongest correlations with a patient's likelihood of recommending the practice. Structuring the clinic to ensure adequate provider time with their patients could improve the patient's experience. Additionally, creating mechanisms to clearly and simplistically provide information regarding medications and follow-up care instructions

Table 2
Frequency of perfect satisfaction for individual PGOMPS[a] questions.

Press Ganey Question	Percent Perfect
Physician Spoke Using Clear Language	82.90%
Physician Friendliness/Courtesy	82.74%
Cleanliness Of Practice	82.67%
Likelihood Recommend Practice	81.27%
Physician Likelihood to Recommend	80.96%
Physician Confidence	80.83%
Nurse Friendliness	80.61%
Physician Effort to Include You in Decisions	80.21%
Physician Concern for Your Questions/Worries	79.77%
Physician Explained Problem or Condition	79.18%
Staff Work Together	79.06%
Concern For Privacy	78.53%
Courtesy Registration Staff	78.40%
Discussion of Any Proposed Treatment	78.15%
Lab Tech Courtesy	78.01%
Physician Information About Meds	77.59%
Staff Protect Safety	77.58%
Physician Time Spent	76.36%
Physician Instructions Follow-up Care	76.25%
Sensitivity To Needs	75.61%
Nurse Concern	75.07%
How Well Nurse Listened to You	75.06%
Lab Test Wait Time	70.09%
Ease of Contacting the Clinic	67.10%
Ease Of Scheduling Appointment	65.74%
Convenience Of Office Hours	64.30%
Wait Time	63.00%
Ease Of Getting on Phone	60.77%
Information About Delays	60.19%
Ability To Get Desired Appointment	58.92%

[a] Press Ganey Outpatient Medical Practice Survey.

Table 3
Correlation of individual questions to "likelihood of your recommending our practice with others".

Press Ganey Question	Spearman's Correlation	Confidence Interval	P value
Physician Likelihood to Recommend	0.822	0.808, 0.835	<0.001
Staff Work Together	0.807	0.792, 0.821	<0.001
Physician Confidence	0.775	0.757, 0.792	<0.001
Physician Effort to Include You in Decisions	0.743	0.725, 0.761	<0.001
Sensitivity to Needs	0.732	0.710, 0.752	<0.001
Physician Concern for Your Questions/Worries	0.728	0.709, 0.746	<0.001
Physician Explained Problem or Condition	0.718	0.698, 0.737	<0.001
Physician Friendliness/ Courtesy	0.715	0.694, 0.735	<0.001
Discussion of Any Proposed Treatment	0.715	0.655, 0.766	<0.001
Physician Instructions Follow-up Care	0.695	0.672, 0.717	<0.001
Physician Information About Meds	0.692	0.666, 0.716	<0.001
Physician Spoke Using Clear Language	0.685	0.661, 0.707	<0.001
Concern For Privacy	0.66	0.637, 0.683	<0.001
Physician Time Spent	0.652	0.627, 0.675	<0.001
Cleanliness of Practice	0.626	0.599, 0.651	<0.001
Staff Protect Safety	0.614	0.587, 0.639	<0.001
How Well Nurse Listened to You	0.603	0.528, 0.668	<0.001
Ease of Contacting the Clinic	0.569	0.491, 0.639	<0.001
Nurse Concern	0.555	0.528, 0.582	<0.001
Nurse Friendliness	0.552	0.523, 0.580	<0.001
Lab Tech Courtesy	0.551	0.512, 0.587	<0.001
Lab Test Wait Time	0.541	0.502, 0.577	<0.001
Information About Delays	0.475	0.441, 0.508	<0.001
Ease Of Scheduling Appointment	0.47	0.440, 0.499	<0.001
Courtesy Registration Staff	0.465	0.435, 0.494	<0.001
Convenience of Office Hours	0.439	0.406, 0.471	<0.001
Ability To Get Desired Appointment	0.423	0.392, 0.453	<0.001
Wait Time	0.416	0.383, 0.447	<0.001
Ease Of Getting on Phone	0.385	0.349, 0.420	<0.001

Table 4
Patient priorities for non-provider aspects of care.

Press Ganey Question	Percent Perfect
Cleanliness Of Practice (MD)	82.67%
Likelihood Recommend Practice (MD)	81.27%
Nurse Friendliness (MD)	80.61%
Staff Work Together (MD)	79.06%
Concern For Privacy (MD)	78.53%
Courtesy Registration Staff (MD)	78.40%
Discussion of Any Proposed Treatment	78.15%
Lab Tech Courtesy (MD)	78.01%
Staff Protect Safety (MD)	77.58%
Sensitivity To Needs (MD)	75.61%
Nurse Concern (MD)	75.07%
How Well Nurse Listened To You (MD)	75.06%
Lab Test Wait Time (MD)	70.09%
Ease of Contacting the Clinic (MD)	67.10%
Ease Of Scheduling Appointment (MD)	65.74%
Convenience Of Office Hours (MD)	64.30%
Wait Time (MD)	63.00%
Ease Of Getting On Phone (MD)	60.77%
Information About Delays (MD)	60.19%
Ability To Get Desired Appointment (MD)	58.92%

Table 5
Patient Priorities for-Providers.

Press Ganey Question	Percent Perfect
Physician Spoke Using Clear Language	82.90%
Physician Friendliness/Courtesy	82.74%
Physician Likelihood to Recommend	80.96%
Physician Confidence	80.83%
Physician Effort to Include You In Decisions	80.21%
Physician Concern for Your Questions/Worries	79.77%
Physician Explained Problem Or Condition	79.18%
Physician Information About Meds	77.59%
Physician Time Spent	76.36%
Physician Instructions Follow-up Care	76.25%

efficiently and effectively could also prove valuable. Providers striving to improve the overall experience of their patient's care could consider addressing these areas through formal or informal quality improvement projects.

The seven questions patients were least satisfied with related to areas that are indirectly influenced by providers in some settings or not at all in others. These included "information about delays," "ability to get desired appointments," and "convenience of office hours." Although practical and implementable solutions will vary across institutions, the general implication of our study is that these areas are likely outside of the exclusive control of providers and reimbursement structuring should be adjusted accordingly. Improvement in these areas may require significant fiscal investment through the hiring of more staff and providers to help patients receive adequate and timely care.

Our study has several limitations that merit acknowledgment. As this study was performed at a single institution, generalizations of the results to health care systems elsewhere may be limited. Additionally, patients travel from a large geographical region to be seen at our clinic. This may impact the expectations and experience of our patients, and potentially their satisfaction with the clinical encounter that may not apply to health care systems with smaller catchment areas. Given the nature of PG surveys, the results of this study may be impacted by non-response bias. For our institution, previous work has demonstrated response rates to range between 8.9 and 16.5% [22, 25]. Previously, a study found that the patient sex, age, and insurance status differed between those who completed the PGOMPS and patients who did not [33]. It is unclear how these factors may impact our results. Nevertheless, a low response rate is a real-world limitation of PGOMPS and other patient outcome surveys that are utilized to subjectively measure the quality of care provided to patients. Currently, our understanding of the ability of PGOMPS to measure quality of care delivered to patients is also limited. Recent literature comparing PGOMPS to other patient-reported outcome measures in orthopedics has demonstrated mixed results. Several articles in the joint replacement literature [34–36] demonstrate that Press Ganey does not correlate well with other patient reported outcome measures such as Patient-Reported Outcomes Measurement Information System physical function scores. Literature in foot and ankle surgery [37] and hand surgery [4], however have demonstrate a positive correlation.

5. Conclusions

The results of our study suggest that the majority of patients who complete the PGOMP survey are satisfied with their providers. The present data also suggests that providers-specific factors influence the patient's perceived satisfaction with the experience as a whole and likelihood to recommend the practice. Areas of dissatisfaction with the clinic encounter pertain to aspects that may not necessarily be within the direct control of providers during the specific encounter. Administrators of health care systems should consider these results when seeking ways to improve patient satisfaction and when determining how or if scores should be linked to physician reimbursement.

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Conflict of interest statement

None of the authors have any relevant conflict of interest.

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