


Patients With Health-Related Social Needs More Likely to Report Poor Clinic Experiences

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Mary Gray, PhD¹ , Kyle G Jones, MSc², and Bill J Wright, PhD²

Abstract

Measuring patients' care experience is necessary to understanding and improving health care quality and is a core component of patient-centered care. In this study, we test whether patient health care experiences differed between patients with and without health-related social needs, above and beyond demographic differences previously studied. This study relies on survey data from 2341 patients who visited 1 of 7 primary care clinics in Portland, Oregon, and surrounding communities during the latter half of 2018. Survey analysis reveal that patients with at least 1 health-related social need had greater odds of reporting staff not always answering questions, not getting all the care they need, not getting the information to manage care, not being treated with respect by their provider, and getting care being a hassle. The findings from this study suggest that patients with health-related social needs are not getting the holistic care they expect in their primary care clinics and find it a hassle to get care regardless of their demographic characteristics and insurance status. This study may help to inform how health care systems and clinics can best serve patients with health-related social needs.

Keywords

health-related social needs, health care experiences, patient perspectives/narratives, clinic care

Introduction

Patient-reported experiences in health care are important for understanding health care quality and evaluating person-centered care (1). Patients who report positive care experiences are more likely to be satisfied with their care (2), report a stronger relationship with their doctor (3), and to comply with postcare treatment regimens (4–7). Good patient care is correlated with both patient loyalty and health care employee satisfaction (1,8,9). Patients who report negative health care experiences may avoid or delay seeking further health care from the same provider (2) and are more likely to use the emergency department for nonurgent care needs (10).

Experiences and perceptions of care are moderated by individual-level characteristics including age (11–14), gender (14), and race (14,15). The reported direction and magnitude of the relationship between individual characteristics and patient experiences has not been consistent (16). A more consistent relationship has been established between care experiences and patient socioeconomic status (SES). Low-SES patients are more likely to report past negative experiences with care (17) and are less satisfied with their care (14,15,18). Though disparities in health care experiences by individual characteristics has been well studied, patient

health care experiences for individuals with unmet health-related social (HRS) needs (ie, food, housing, transportation, health care) has not. The purpose of our study was to examine the relationship between unmet HRS needs and patient experiences and to explore the extent to which the poor experiences of low-SES patients previously studied is driven by the unmet HRS needs of the patient.

Methods

Study Design and Sample

This study draws on baseline data from a larger prospective longitudinal panel study designed to assess the impact of a clinic-based community resource desk on short-term health outcomes and health care utilizations and costs. We used pseudorandom sampling stratified by insurance type to

¹ Comagine Health, Portland, OR, USA

² Center for Outcomes Research and Education, Providence Health and Services, Portland, OR, USA

Corresponding Author:

Mary Gray, Comagine Health, 650 NE Holladay Street, Portland, OR 97232, USA.

Email: mgray@comagine.org



create our study population. Patients in treatment clinics, those with community resource desks, were divided by insurance type and randomly sampled according to a predefined ratio (75% Medicaid, 15% Medicare, and 10% Commercial). The ratio was defined based on community resource desk program data to increase our chances of surveying patients who may utilize the services provided by the community resource desk. Patients in control clinics were matched to the treatment group, still stratified by insurance type, using 1:1 nearest neighbor matching on sex, age, race, and language. The insurance ratios were based on the distribution of insurance types seen at the resource desks and were subsequently weighted heavier toward Medicaid patients to increase the likelihood of surveying patients with HRS needs. While important for understanding sample derivation, our study does not use the original definition of treatment and control clinics, instead separating patients by whether they reported a HRS need.

Data Collection

We used clinic health records of recent patient visits to recruit 6000 patients over 4 (1500 per wave) waves into the study. Patients were required to be at least 18 years old and have had a recent (within a 30-day window) visit to one of the study clinics. Each patient was assigned a unique identifier, mailed a paper survey with a \$5 cash incentive, and simultaneously sent an email to complete an online option of the survey. A reminder letter, email, and phone call follow-up was conducted for survey nonrespondents. In total, 2341 individuals completed the survey (39% response rate).

Survey Instrument

The survey was designed in partnership with the community health division of the nonprofit health care system that funded the community resource desk intervention. Surveys were collected in English. The survey included measures of participants' recent experiences in the clinic, a checklist of HRS needs, and a set of demographic questions.

The outcomes for this study comprised a set of 5 questions about the participants' recent experiences in the clinic. The questions ask participants to rate how often staff were able to answer all their questions, how often they got all the care they needed, how often they got all the information they needed to manage their care, how often they were treated with respect by their health care provider, and how often it was a hassle to get their needed care.

The predictors for this study were comprised of a checklist of 14 HRS needs. Participants were asked if they had recently needed assistance with food, utility costs, transportation, clothing, housing/rent, services for children, jobs or employment, or education classes (defined as social needs, note 1) as well as health insurance, quitting tobacco, counseling, alcohol or drug recovery, eye care, or dental care (defined as integrated health needs, note 2).

Statistical Analyses

Two predictors were created for analysis; at least 1 HRS need (of the 14 total) and at least 1 social need specifically (of the 7 social needs listed above). The first splits the sample into those with no HRS needs and those with at least 1, while social need splits the sample into those with no social need and those with at least 1 social need related to food, utility costs, transportation, clothing, housing/rent, services for children, jobs or employment, or education classes. Demographics were calculated comparing the sample with no HRS needs to the sample with at least 1 need. The associations between these 2 groups were assessed with χ^2 tests.

We collapsed 4 of the 5 care outcomes into binary outcomes where "always" experiencing the outcome was categorized as 0, and "sometimes" or "never" experiencing the outcome was categorized as 1; the frequency of care being a hassle was categorized as "always"/"sometimes" = 1 and "never" = 0. This was done for both ease of analysis and because we wanted any indication that these outcomes were not being met to be counted as poor clinic experience.

We began by assessing the impact that SES had on those outcomes, with insurance status as a proxy (18), using univariate and multivariable logistic regressions adjusting for age, gender, race, education, hours worked, marital status, and HRS needs. We then conducted the same analysis assessing the impact of HRS needs on those outcomes adjusting for insurance status instead of HRS need. We explored the interaction effect between insurance status and HRS need to assess whether this variable transformation further magnified the impact on clinic experience. Finally, we isolated social need as a predictor and explored the impact on clinical experiences independent of integrated health needs. All analyses were conducted in R 3.3.3 (19).

Results

Overall, 55.63% ($n = 1264$) of the analytic sample reported having at least 1 HRS need in the past 6 months; 9.24% ($n = 210$) reported only social needs, 20.91% ($n = 475$) reported only integrated health care needs, and 25.48% ($n = 579$) reported both social and integrated health care needs. Across the analytic sample, most respondents were satisfied with their recent clinic experiences as is illustrated with the data to follow. Approximately three-quarters say that staff always answer their questions (75%), they always get the care they need (75%), and always get the information they need to manage their care (73%). Most participants say that their provider treated them with respect and did not judge them for any reason (88%).

The sample was primarily over 50 years old (HRS need 58.34; no need 53.00), female (HRS need 68.29%; no need 70.49%), and white (HRS need 73.80%; no need 71.86%; Table 1). Over half the sample had some form of tertiary education, with nearly 30% holding a 4-year college degree or more (SDH need 31.97%; no need 27.82%); however, the majority of the sample did not currently work (SDH need

Table 1. Population Demographic Comparison.

Count	Sample		No health-related social need		At least 1 health-related social need		χ^2
	%	95% CI	%	95% CI	%	95% CI	
Age-group							<0.0001
18-29	10.17%	(8.99-11.48)	9.72%	(8.04-11.71)	10.52%	(8.95-12.34)	
30-39	13.56%	(12.21-15.03)	11.41%	(9.59-13.52)	15.27%	(13.39-17.36)	
40-49	12.68%	(11.37-14.11)	9.42%	(7.77-11.39)	15.27%	(13.39-17.36)	
50-59	16.81%	(15.33-18.41)	12.80%	(10.87-15.01)	20.02%	(17.90-22.31)	
60-65	14.96%	(13.56-16.49)	14.68%	(12.63-17.00)	15.19%	(13.32-17.28)	
Over 65	31.82%	(29.94-33.77)	41.96%	(38.95-45.04)	23.73%	(21.47-26.16)	
Mean (SD)	55.37	18.27	58.34	18.85	53.00	17.45	<0.0001
Gender							0.0346
Male	29.00%	(27.17-30.9)	30.89%	(28.12-33.82)	27.48%	(25.09-30.01)	
Female	69.51%	(67.59-71.37)	68.29%	(65.35-71.09)	70.49%	(67.91-72.94)	
Transgender or gender non-conforming	0.45%	(0.25-0.83)	0.30%	(0.10-0.93)	0.57%	(0.27-1.18)	
I prefer to self-describe	1.04%	(0.69-1.55)	0.51%	(0.21-1.20)	1.46%	(0.93-2.30)	
Race							0.0168
White	72.72%	(70.85-74.51)	73.80%	(70.99-76.42)	71.86%	(69.32-74.27)	
Hispanic	5.67%	(4.79-6.7)	5.94%	(4.63-7.57)	5.46%	(4.34-6.86)	
Black	4.49%	(3.71-5.43)	3.38%	(2.42-4.69)	5.38%	(4.27-6.77)	
Asian	6.54%	(5.59-7.63)	7.68%	(6.19-9.49)	5.63%	(4.48-7.04)	
Other	10.58%	(9.38-11.91)	9.21%	(7.58-11.16)	11.66%	(10.01-13.55)	
Highest education level							0.0013
Less than high school	8.49%	(7.41-9.71)	7.38%	(5.92-9.16)	9.38%	(7.89-11.12)	
High school diploma	28.34%	(26.53-30.23)	30.33%	(27.57-33.24)	26.75%	(24.38-29.26)	
GED or a high school equivalent	9.45%	(8.31-10.72)	7.27%	(5.83-9.05)	11.19%	(9.57-13.05)	
Vocational training or 2-year degree	24.05%	(22.34-25.85)	23.05%	(20.56-25.76)	24.86%	(22.55-27.31)	
A 4-year college degree or more	29.67%	(27.82-31.58)	31.97%	(29.16-34.91)	27.82%	(25.42-30.36)	
Hours worked							<0.0001
I don't currently work	58.38%	(56.34-60.39)	56.22%	(53.14-59.25)	60.10%	(57.37-62.76)	
Less than 20 hours per week	7.70%	(6.67-8.87)	5.96%	(4.66-7.60)	9.08%	(7.61-10.79)	
20-39 hours per week	13.57%	(12.22-15.04)	13.26%	(11.30-15.49)	13.82%	(12.02-15.83)	
40 or more hours per week	20.36%	(18.75-22.06)	24.56%	(22.00-27.32)	17.01%	(15.04-19.18)	
Marital status							<0.0001
Married or domestic partnership	43.51%	(41.49-45.56)	55.28%	(52.20-58.33)	34.12%	(31.56-36.78)	
Single, never married	24.31%	(22.59-26.11)	18.67%	(16.38-21.19)	28.81%	(26.37-31.36)	
Widowed/divorced/separated	29.90%	(28.06-31.82)	25.23%	(22.64-28.01)	33.63%	(31.08-36.29)	
Something else	2.28%	(1.74-2.98)	0.82%	(0.42-1.61)	3.44%	(2.56-4.60)	
Insurance status							<0.0001
Other (incl Medicare/Commercial)	37.94%	(35.97-39.95)	55.46%	(52.37-58.50)	23.97%	(21.70-26.40)	
Medicaid	62.06%	(60.05-64.03)	44.54%	(41.50-47.63)	76.03%	(73.60-78.30)	

56.22%; no need 60.10%). While each demographic was associated with the predictor of HRS need, marital status (married with no needs 55.28%; married with HRS need 34.12%) and insurance status (Medicaid with no needs 44.54%; Medicaid with HRS needs 76.03%) showed the greatest disparities between the 2 groups.

In a univariate analysis, patients with Medicaid insurance had greater odds of reporting negative health care experiences than participants with other insurance types (Table 2A). After adjusting for potential confounding variables including age, gender, race, education, marital, employment, and insurance status, patients with Medicaid insurance had greater odds of reporting their provider sometimes/never treated them with respect (odds ratio [OR] = 2.22, *P* <

.0001). The univariate analysis comparing patients with and without HRS need also highlighted greater odds of reporting negative health care experiences among patients with HRS need (Table 2B). After adjustment all of these relationships remained strong where patients with HRS need had greater odds of reporting staff not always answering questions (OR = 2.18, *P* < .0001), not getting all the care they need (OR = 1.84, *P* < .0001), not getting the information to manage care (OR = 2.11, *P* < .0001), not being treated with respect by their provider (OR = 1.75, *P* = .0028), and getting care being a hassle (OR = 2.10, *P* < .0001). The univariate and multivariable *P* values for the interaction term between insurance type and HRS need indicate a lack of an interaction effect with all 5 outcomes (Table 3).

Table 2A. Insurance Status by Health Care Experience Outcomes.

	Prevalence			Univariate logistic regression			Multivariable logistic regression ^a		
	N	%	95% CI	OR	95% CI	P value	aOR	95% CI	P value
Staff sometimes/never answered questions						.0236			.7048
Other insurance	881	15.32%	(13.09-17.86)	1.00	-		1.00	-	
Medicaid	1460	18.97%	(17.04-21.07)	1.29	(1.03-1.62)		1.06	(0.79-1.42)	
Sometimes/never got all care needed						.0042			.8251
Other insurance	881	16.00%	(13.73-18.58)	1.00	-		1.00	-	
Medicaid	1460	20.75%	(18.75-22.91)	1.37	(1.10-1.72)		0.97	(0.73-1.29)	
Sometimes/never got info to manage care						.2017			.2901
Other insurance	881	18.39%	(15.97-21.09)	1.00	-		1.00	-	
Medicaid	1460	20.55%	(18.55-22.70)	1.15	(0.93-1.42)		0.86	(0.65-1.14)	
Provider sometimes/never treated you with respect						<.0001			.0007
Other insurance	881	3.52%	(2.49-4.96)	1.00	-		1.00	-	
Medicaid	1460	10.34%	(8.88-12.01)	3.16	(2.16-4.78)		2.22	(1.39-3.62)	
Always/sometimes a hassle to get care						<.0001			.3947
Other insurance	881	30.19%	(27.25-33.31)	1.00	-		1.00	-	
Medicaid	1460	40.00%	(37.52-42.54)	1.54	(1.29-1.84)		1.11	(0.87-1.40)	

Abbreviations: AOR, adjusted odds ratio; HRS, health-related social; OR, odds ratio.

^aAdjusted for age (continuous), gender (male/other), race (white/other), highest education level, hours worked, marital status, and HRS need.

Table 2B. Any HRS Need by Health Care Experience Outcomes.

	Prevalence			Univariate logistic regression			Multivariable logistic regression ^a		
	N	%	95% CI	OR	95% CI	P value	aOR	95% CI	P value
Staff sometimes/never answered questions						<.0001			<.0001
No HRS need	1008	11.81%	(9.95-13.95)	1.00	-		1.00	-	
At least 1 HRS need	1264	22.94%	(20.71-25.34)	2.22	(1.77-2.81)		2.18	(1.69-2.83)	
Sometimes/never got all care needed						<.0001			<.0001
No HRS need	1008	13.69%	(11.70-15.95)	1.00	-		1.00	-	
At least 1 HRS need	1264	23.81%	(21.55-26.24)	1.97	(1.58-2.46)		1.84	(1.45-2.36)	
Sometimes/never got info to manage care						<.0001			<.0001
No HRS need	1008	13.79%	(11.80-16.06)	1.00	-		1.00	-	
At least 1 HRS need	1264	25.24%	(22.92-27.71)	2.11	(1.70-2.63)		2.11	(1.66-2.70)	
Provider sometimes/never treated you with respect						<.0001			.0028
No HRS need	1008	4.76%	(3.61-6.26)	1.00	-		1.00	-	
At least 1 HRS need	1264	10.52%	(8.95-12.34)	2.35	(1.68-3.34)		1.75	(1.21-2.56)	
Always/sometimes a hassle to get care						<.0001			<.0001
No HRS need	1008	27.58%	(24.91-30.42)	1.00	-		1.00	-	
At least 1 HRS need	1264	44.62%	(41.90-47.37)	2.12	(1.77-2.53)		2.10	(1.72-2.57)	

Abbreviations: AOR, adjusted odds ratio; HRS, health-related social; OR, odds ratio.

^aAdjusted for age (continuous), gender (male/other), race (white/other), highest education level, hours worked, marital status, and insurance status.

Table 3. Insurance Status and Health-Related Social Need (Interaction) by Health Care Experience Outcomes.

Demographic Characteristics	Univariate P value	Multivariable P value
Interaction effect		
Staff sometimes/never answered questions	.4826	.4505
Sometimes/never got all care needed	.9384	.9754
Sometimes/never got info to manage care	.7273	.8208
Provider sometimes/never treated you with respect	.2363	.5037
Always/sometimes a hassle to get care	.2274	.4553

Finally, when looking at social needs specifically, the multivariable analysis shows that patients with at least 1 social need had greater odds of reporting negative health care experiences than patients without social needs (Table 4). Patients with at least 1 social need had higher odds of reporting staff not always answering questions (OR = 1.96, $P < .0001$), not getting all the care they need (OR = 1.59, $P = .0002$), not getting the information to manage care (OR = 1.70, $P < .0001$), not being treated with respect by their provider (OR = 1.54, $P = .0157$), and getting care being a

Table 4. Type of Health-Related Social Need by Health Care Experience Outcomes.^a

	Prevalence			Univariate logistic regression			Multivariable logistic regression ^b		
	N	%	95% CI	OR	95% CI	P value	aOR	95% CI	P value
Staff sometimes/never answered questions						<.0001			<.0001
No social needs	1483	14.30%	(12.60-16.17)	1.00	-		1.00	-	
At least 1 social need	789	24.97%	(22.07-28.11)	2.00	(1.61-2.48)		1.96	(1.52-2.53)	
Sometimes/never got all care needed						<.0001			.0002
No social needs	1483	16.39%	(14.59-18.36)	1.00	-		1.00	-	
At least 1 social need	789	24.84%	(21.95-27.98)	1.69	(1.36-2.08)		1.59	(1.24-2.03)	
Sometimes/never got info to manage care						<.0001			<.0001
No social needs	1483	17.19%	(15.36-19.20)	1.00	-		1.00	-	
At least one social need	789	25.73%	(22.80-28.89)	1.67	(1.35-2.06)		1.70	(1.33-2.17)	
Provider sometimes/never treated you with respect						<.0001			.0157
No social needs	1483	5.93%	(4.84-7.26)	1.00	-		1.00	-	
At least 1 social need	789	11.79%	(9.72-14.23)	2.12	(1.56-2.88)		1.54	(1.08-2.18)	
Always/sometimes a hassle to get care						<.0001			<.0001
No social needs	1483	31.76%	(29.44-34.18)	1.00	-		1.00	-	
At least 1 social need	789	47.02%	(43.56-50.51)	1.91	(1.60-2.28)		1.90	(1.54-2.33)	

Abbreviations: AOR, adjusted odds ratio; OR, odds ratio.

^aSocial need include needs associated with food, utility costs, transportation, clothing, housing/rent, services for children, jobs or employment, or education classes.

^bAdjusted for age (continuous), gender (male/other), race (white/other), highest education level, hours worked, marital status, and insurance status.

hassle (OR = 1.90, $P < .0001$) when compared to patients without social need.

Discussion

Our survey results suggest that although most participants were satisfied with their primary care experiences and believe their provider treated them with respect during their visit, lack of satisfaction was explained by the HRS needs of the patient. We found that regardless of the unmet need type, patients experiencing at least 1 need were on average twice as likely to report poor experiences as those without needs. The largest differences were found in informational outcomes, such as staff answering questions and receiving the information needed to manage care.

Previous research has shown that low SES patients are more likely to report poor care experiences (16). Though we see a similar pattern descriptively in this study, this difference was explained statistically by the HRS need of the patient. Our data suggest that moving beyond the focus on poverty as a generator of health inequality is important, and we must unpack the specific HRS needs of patients that underly their poor experiences. In combination with findings from a recent national survey where patients reported that they want their provider to ask about their social needs (20), providers may consider a patient's HRS needs in their care and when developing care management plans.

Research that aims to understand how patient experiences are influenced by characteristics of the patient is important in order to improve health care quality and to shape patterns of use. Patients who report negative experiences with their health care providers are more likely to have poor health

outcomes (21) and less likely to access care from their primary care provider and more likely to utilize the emergency department for nonurgent health care needs (10). Furthermore, experiencing 1 or more HRS needs can impact a patient's health and health care utilization. Patients experiencing at least one unmet need report poorer mental and physical health and use the health system in inefficient and cost-ineffective ways (22), a similar trend to those with poor experiences. The findings from this study suggest that patients with HRS needs are not getting the holistic care they expect in their primary care clinics and find it a hassle to get care regardless of their demographic characteristics and insurance status.

Asking patients about their HRS needs may also benefit the providers. Providers who believe their clinic can address patients' social needs are less likely to experience burnout (23), a symptom that plagues 54% of primary care doctors in the US (24). It seems likely that the poor experiences reported by low SES patients (16) can be addressed, at least in part, by health care systems and clinics moving toward a holistic model by implementing programs to identify and refer patients with HRS needs to social service organizations.

Limitations

There are several limitations to this study that should be considered when assessing the results presented in this paper. First, our design was observational so we cannot fully tease out the extent to which differences in health care clinic experiences was due to HRS need or other variables not tested. Second, we relied on self-reporting in this study, and

only asked about the perspectives of the patients, thus we have introduced bias in response and recall. Third, the generalizability of our findings is restricted to clinic experiences only and is limited by several homogenous traits of the patients surveyed including that they were drawn from an urban community and identified mostly as white and female. Finally, our outcome measures were limited to 1 item each, and we did not use a standardized measure which limits the construct validity of our outcomes and introduces measurement error.

Conclusion

Patient experiences in health care is an important indicator of health care quality and essential for the successful delivery of patient-centered care. In this study, we demonstrated strong relationships between patient care experience and patients reporting at least one HRS need. This finding adds to the current literature on inequities in health care experiences by patient demographic characteristics. Overall, this study may help guide interventions implemented by health care systems that aim to identify patients with HRS needs. Future research is needed to understand the mechanisms of why HRS need predicts poorer health care clinic experiences, so direct action can be taken based on these results.

Authors' Note

This study was approved by the Providence Health and Services Institutional Review Board (STUDY2017000640). All procedures in this study were conducted in accordance with the Providence Health and Services Institutional Review Board (STUDY2017000640)* approved protocols. Written informed consent was obtained from the patient(s) for their anonymized information to be published in this article.

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ORCID iD

Mary Gray, PhD  <https://orcid.org/0000-0001-5841-4095>

Notes

1. The term health-related “social need” comes from the Center for Medicare and Medicaid Studies (CMS) Accountable Health Communities Model and is used to describe health-harming conditions such as food insecurity and inadequate or unstable housing.
2. The term “integrated health need” was chosen to illustrate this cluster of needs because they can be addressed through integrated health care.

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Author Biographies

Mary Gray is a senior research associate at Comagine Health, where she directs evaluation and research in the areas of health care utilization and behavioral health among low-income and marginalized communities. Dr. Gray is a community psychologist and methodologist specializing in mixed-methods and longitudinal research.

Kyle G Jones is a research analyst for CORE's Research & Evaluation team. He is responsible for sample design, data cleaning, and conducting and interpreting analyses. Kyle's primary research interests include sexual health and the role of social factors as a driver of overall health and effective engagement with the health-care system. Dr. Wright is the executive director for Health Services Research at Providence, where he oversees CORE and supports other health transformation research across the health system.

Bill J Wright is a sociologist with a principal focus on survey design, and specializes in longitudinal research with low-income and vulnerable populations. His research focuses on the intersection between health policy, health systems design and the social determinants of health.