Malpractice as a Perceived Barrier to Specialist Referral for Physicians Practicing in Rural Emergency Departments

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ABSTRACT

Background: Multiple barriers exist for referral of emergency department (ED) patients to specialists, particularly in rural communities; however, little is known about malpractice as a potential barrier.

Study Objective: In this preliminary study, we sought to evaluate specialist malpractice concern as a perceived barrier to specialist referral for rural physicians practicing in EDs. Methods: The 2009 Colorado Rural Physician Workforce Survey was sent to all physicians practicing in rural Colorado. The primary survey question used for this analysis was whether malpractice was a barrier to specialist referral.

Results: The survey had a response rate of 56% (711 of 1,272). We analyzed responses from all 525 actively licensed physicians. When compared to other physicians in other practice settings, physicians in the ED were more likely to select malpractice as a perceived barrier to specialist referral (29% vs 11% primary care and 15% other physicians). Physicians in isolated rural EDs (52% vs 31% in small rural and 22% in large rural areas) and those with fewer insured patients (73% with 0-20% privately insured vs 19% with>20% privately insured patients) were more likely to report malpractice as a barrier to specialist referral.

Conclusion: In our preliminary study, rural physicians practicing in EDs were more likely to report specialist malpractice concern as a barrier to specialist referral than other physicians, particularly in isolated and less insured communities. Further study is required to understand the potential reasons and significance of these results and to evaluate the impact of actual malpractice risk on access to follow-up care for rural ED patients.

INTRODUCTION

Approximately 20% of the U.S. population resides in rural communities, however only 9% of physicians practice in these settings.1 Rural populations have higher rates of poverty, a greater burden of chronic diseases, and are in poorer general health when compared to urban and suburban communities.[2-4] Despite being considered a "priority population" by the Agency for Healthcare Research and Quality,[4] access to care, particularly specialist care, remains limited in rural communities. While many patients can be safely discharged from the emergency department (ED), urgent follow up is often needed to guide further evaluation and treatment.

However, many potential obstacles exist in securing a specialist visit for discharged ED patients. These include provider shortage, insurance coverage, financial barriers, geographic or transportation barriers, patient compliance, and medical malpractice. Rural ED patients have even more difficulty obtaining specialty follow-up, although many obstacles are difficult to address.[5] Malpractice risk may be an obstacle that is amenable to intervention, through tort reform, to improve access to care for ED patients. This may be particularly important in rural communities where a higher rate of poverty and lower rate of insurance coverage means specialist physicians may assume greater risk for lower compensation. Prior studies suggest that malpractice risk may limit access and scope of practice of rural family physicians.[6,7] However, to the best of our knowledge, whether malpractice limits specialist's willingness to accept patients referred by rural providers has not been studied. Therefore, we sought to evaluate the specialist malpractice concern as a perceived barrier to specialist referral for rural physicians practicing in EDs. We hypothesized that perception of specialist malpractice risk would be more commonly cited as a barrier for physicians in the ED compared to other specialty physicians.

MATERIALS AND METHODS

This was a secondary, cross-sectional analysis of the existing Colorado Rural Physician Workforce Survey, conducted by the Colorado Health Institute in 2009. This study was approved by our institutional review board as an exempt protocol. The Colorado Health Institute sent surveys to all licensed physicians practicing in rural Colorado. Rural communities were defined according to the Rural/Urban Commuting Area (RUCA) codes, a ZIP Code based classification system of rural and urban status based on population and work commuting.[8]

The Colorado Health Institute used these RUCA codes to categorize rural locations as isolated, small rural, and large rural areas. Surveys were mailed in four waves (an initial postcard notifying physicians of the survey, a second mailing with the survey, a subsequent postcard reminder, then finally a second survey) to 1,362 actively licensed physicians in rural Colorado. There were 711 (55.9%) respondents (1,272 of the initial 1,362 physicians were eligible to complete the survey).

The survey included questions on physician demographic information, self-reported primary specialty, practice characteristics, reasons for practicing in rural medicine and issues facing rural physicians in regards to access to care for their patients. The primary question used for this analysis was "Do you face any of the following obstacles in securing specialist visits for your patients?" We focused on the "yes" or "no" response to malpractice for this analysis. We presume that this survey item indicates the referring providers' perception of specialist malpractice concern, though there is some ambiguity to the question that could lead to alternate interpretations by the respondents.

Physician demographic information (age, sex, race) and practice characteristics (specialty, years in practice, total annual number of patient visits in the practice location, payer mix, and rural community size) were used as co-variates to compare physicians who did and did not report specialist malpractice concern as an important perceived obstacle to specialist follow-up. Prior training and board certification type were not available in the survey data.

DATA ANALYSIS

We analyzed data using Stata 10.1 (College Station, TX). To adjust for non-response bias, the Colorado Health Institute developed survey weights using strata based on age and gender that were applied in all analysis. Results are presented descriptively, stratified by self-reported physician specialty (emergency medicine, primary care including family medicine, general internal medicine and general pediatrics, and other specialty). Because this was a preliminary, hypothesis generating and refining study, formal statistical testing and comparisons was not performed.

RESULTS

Of the 1,272 survey recipients, 711 (56%) were returned. We analyzed responses from the 525 actively practicing physicians who refer patients to specialists (52 emergency, 231 primary care, and 238 other specialty physicians). Overall, physicians practicing in the ED were more likely to report specialist malpractice concern as a perceived barrier to specialist referral (29%, compared to 11% for primary care and 15% for other specialty physicians).

The association between specialty type, physician characteristics, and specialist malpractice concern as an obstacle to securing specialty follow-up are presented in the Table. For all specialties, younger and male physicians, those with fewer annual patient visits, and those with a lower percentage of privately insured patients were more likely to report specialist malpractice concern as an obstacle to specialist referral.

Similar demographic associations were present for physicians in the ED compared to other specialty physicians. Among physicians in the ED, those with the lowest rate of privately insured patients were most likely to report specialist malpractice concern as a perceived obstacle to specialist referral (73% with 0-20% privately insured vs 19% with >20% privately insured patients). Additionally, physicians practicing in isolated rural EDs were more likely to report specialist malpractice concern as a perceived obstacle (52% vs 31% in small rural and 22% in large rural areas).

Table. Proportions of Specialist Malpractice Concern as a Perceived Barrier to Securing Specialist Visits for Patients Stratified by Specialty, Provider, and Practice Characteristics

Physician/Practice Characteristics	Total n=525	Emergency Medicine n=52	Primary Care n=231	Other Specialty n=238
Age, years				
0-44 (n=167)	18%	43%	15%	17%
45-54 (n=154)	13%	36%	8%	13%
≥55 (n=204)	13%	16%	9%	14%
Sex				
Female (n=168)	10%	16%	8%	11%
Male (n=356)	17%	31%	12%	17%
Race				
Non-White (n=61)	14%	Nc	17%	12%
White (n=457)	14%	31%	10%	15%
Years in Practice				
0-3 (n=140)	14%	32%	14%	10%
4-7 (n=104)	15%	49%	8%	14%
8-13 (n=109)	17%	26%	10%	23%
≥14 (n=146)	15%	14%	12%	18%
Annual Patient Visits				
0-3,000 (n=173)	17%	53%	15%	16%
3,001-11,000 (n=142)	16%	36%	11%	18%
>11,000 (n=80)	13%	24%	8%	8%
Missing (n=126)	11%	17%	9%	12%
Payer Mix—Private				
0-20% (n=99)	20%	73%	16%	13%
21-40% (n=126)	16%	18%	13%	21%
>40% (n=126)	11%	20%	8%	12%
Missing (n=174)	13%	22%	9%	15%
Rural Size				
Isolated (n=77)	20%	52%	18%	0%
Small rural (n=229)	11%	31%	8%	11%
Large rural (n=207)	16%	22%	10%	19%

nc, not calculable due to<3 observations
Proportions represent referring physicians in each category that reported fear of malpractice as a barrier to specialists accepting referrals.

DISCUSSION

In this preliminary study, rural physicians practicing in the ED were more likely to perceive specialist malpractice concern as an obstacle to specialist referral, compared to primary care and other specialty physicians. Physicians practicing in the most remote EDs and those with the lowest proportion of privately insured patients disproportionately reported specialist malpractice concern as an obstacle to access specialists for their patients. Of additional concern, these factors also represent particularly vulnerable patient populations.

Research and advocacy on malpractice risk has traditionally focused on its relation to overall health care costs and patient safety, but its role as a potential barrier for specialist referral has not been well studied. Based on our data it appears that the fear of malpractice may have an impact on specialist physicians' decisions to accept referrals (as perceived by the referring providers). We hypothesize that specialists may be less willing to assume the risk of ED patients, due to lower overall reimbursement, fears of higher litigation risk, and lack of established treating relationship between ED providers and their patients. In addition, prior data suggests that decreased reimbursement, combined with increased malpractice costs, may play a role in access to specialists for rural populations.[9]

Indeed, all physicians with low rates of privately insured patients, particularly in the ED setting, were more likely to perceive specialist malpractice risk as an obstacle to specialist referral. This highlights the potential interaction between payer mix and the impact of malpractice risk. Additionally, while prior data suggest that rural populations are at higher overall risk for limited specialty care follow-up,[5] we also found an inverse association between the size of the rural community and specialist malpractice concern as a perceived obstacle to specialist referral for physicians in the ED. Collectively, these results highlight that malpractice risk may disproportionately affect more vulnerable patient populations.

LIMITATIONS

Our study has some potential limitations. The sample size was modest and the response rate (56%) introduces the potential for non-response bias. However, weighting survey responses attempts to address this bias, based on different response rates by demographic characteristics.[10] Missing data from certain co-variates limit the ability to make comparisons across these categories. The respondents were all physicians from rural Colorado, which limits generalizability to urban settings and other geographic areas. This is particularly important because Colorado has been reported to have a physician-favorable malpractice environment.[11] In addition, malpractice risk is largely a unique U.S. phenomenon and may not apply to other countries

Physician specialty was by self-report; thus, we could not verify training and board certifications of physicians who identified as practicing emergency medicine. Also, because obstacles were measured by physician self-report and perception of specialist concerns by the referral providers, the opinions may not accurately reflect true barriers. Larger studies would help to confirm our results and further evaluate malpractice as an obstacle to specialist referral.

Finally, we assume that the wording of 'malpractice' as a barrier to referral implied the referring physicians' perception of specialist malpractice concern; however, the survey item was ambiguous, and respondents could potentially interpret this item differently.

CONCLUSIONS

Our results suggest that rural physicians practicing in the ED perceive specialist malpractice concern as a greater barrier to specialist referral than do physicians in other rural practice settings, though the reasons for and significance of our findings are uncertain. Future studies should evaluate actual malpractice risk as an obstacle to specialty referral, particularly for vulnerable populations, and if confirmed, develop related interventions to enhance access to follow-up specialty care for ED patients

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