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## Association of Clinician Burnout and Perceived Clinician-Patient Communication in the Emergency Department

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Patient satisfaction in the emergency department (ED) has become increasingly important over the past decade. [1] Past work has found patient satisfaction associated with increased care compliance, [2,3] decreased litigation risk [4] and fiscal improvement for institutions. [5] In the context of this growing emphasis on patient satisfaction, a large body of work has attempted to identify ED stay factors associated with satisfaction. Previous work has examined the impact of environmental variables such as crowding [6] wait time [7] and analgesic use. [8] Another aspect of a patient's ED stay that may play a significant role in patient satisfaction is clinician-patient communication. Strong clinician-patient communication has been associated with multiple positive patient outcomes from medication compliance, [9] reduced stress, [10] and decreased litigation. [11] While past work has noted that overall clinician-patient communication is associated with patient satisfaction, [11–13] less work has focused on individual provider level factors. In particular, clinician “burnout” may impact perceptions of clinician-patient communication. *Burnout*, defined by emotional exhaustion, physical fatigue, and cognitive weariness, [14] results from high and sustained levels of stress and is associated with feelings of irritability, fatigue, and cynicism. [15] In a sample of physicians across specialties adjusted for age, sex, hours worked, and years of practice, emergency physicians were at greatest risk for burnout (odds ratio [OR], 3.18;  $P < .001$ ), with nearly 70% reporting burnout (the mean across specialties was under 50%). [16] The negative impact of burnout on clinicians is broad including increased risk for depression, [17] anxiety, [18] and substance abuse. [19] However, clinician burnout may also affect patient care outcomes. Previous work has found clinician burnout associated with job absenteeism and increased medical errors. [12] The goal of this study was to build on this existing work and evaluate the association between clinician burnout and perceived clinician-patient communication in ED patients.

We conducted a prospective observational study of 63 emergency staff (nurses and physicians) and 167 patients evaluated for potential acute coronary syndrome (ACS). We limited our patient cohort to potential ACS in order to attempt to account for variations in clinician-patient communication secondary to medical illness. All patients receiving care in the ED and evaluated for ACS were eligible. Clinician participants included nurses and physicians working in the ED. Exclusion criteria included patients evaluated for a behavioral health chief complaint and patients deemed critically ill by the clinical team. This research protocol was approved by the Columbia University Institutional Review Board

We used an adapted version of Communication Assessment Tool for Teams (CAT-T) to assess patient's perception of clinician-patient communication along with overall patient satisfaction in the ED. [20] The tool included 31 questions asking patients to rate their ED care experiences on a five-point Likert scale ranging from poor to excellent. Earlier pilot work found Cronbach's Alpha for CAT-T asking patients about their medical team was 0.976.

We used the abbreviated version of the Maslach's Burnout Inventory, a validated self-report tool assessing three dimensions of burnout: emotional exhaustion, depersonalization, and personal accomplishment. [21] Providers completed the Burnout Inventory after each shift. Provider scores on burnout were then matched with clinician-patient communication ratings by the patients they cared for during their shift.

In order to evaluate the association with clinician communication and patient satisfaction we examined a separate sample of 61 patients, 49 nurses, and 27 physicians using the CAT-T. The correlation matrix between patient-reported nurse and physician communication experiences, and overall patient satisfaction is shown in Table 1. All questions were positively correlated with overall patient satisfaction, suggesting that all of the tested aspects of communication were important.

In a sample of 63 ED staff and 167 patients for our current study we used multiple linear regression to evaluate if clinician burnout predicted overall poorer perception of clinician-patient communication (CAT-T). The model adjusted for years of experience of provider, gender, age, and patient severity (by ESI). The model significantly predicted perception of clinician-patient communication ( $F= 2.654, p<.05, R^2=.18$ ). Among the variables in the model only physician burnout was significantly associated with poorer perception of clinician-patient communication among ED patients ( $\beta = 0.11, p<0.05$ )

Our study found that overall patient satisfaction was correlated with perceived clinician-patient communication and clinician burnout was associated with poorer perceived clinician-patient communication in the ED. The data from this study highlight the negative impact of clinician burnout not only for clinicians themselves but on aspects of patient care outcomes such as clinician-patient communication and satisfaction. Future work aimed at developing interventions to reduce clinician burnout may improve provider satisfaction and career longevity, in addition to improvements in patient care such as clinician-patient communication.

There were several limitations to our study. This was a single-site study at an academic medical center so findings may not be generalizable to different populations. Additionally, the surveys on perceived communication were self-report with potential for response bias. Future research may integrate other methodology such as focus groups, or third party observers to attempt to capture other elements of the clinician-patient dynamic.

Clinician burnout is an important challenge facing emergency providers. The development of focused strategies targeting burnout may yield improvements to both provider well-being and patient care outcomes.

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**Table 1 –**

Correlation between clinician CAT-T and patients' overall satisfaction

CAT-T question	re: Physicians		re: Nurses	
	<i>r</i> (n)	<i>P</i>	<i>r</i> (n)	<i>p</i>
Greeted me in a way that made me feel comfortable	0.7134 (59)	<0.001	0.7168 (61)	<0.001
Treated me with respect.	0.6961 (60)	<0.001	0.7678 (61)	<0.001
Showed interest in my ideas about my health.	0.7311 (60)	<0.001	0.7453 (60)	<0.001
Understood my main health concerns	0.7267 (61)	<0.001	0.7713 (61)	<0.001
Paid attention to me.	0.6936 (61)	<0.001	0.7615 (61)	<0.001
Let me talk without interruptions	0.7786 (60)	<0.001	0.6245 (61)	<0.001
Gave me as much information as I wanted	0.6859 (61)	<0.001	0.7727 (61)	<0.001
Talked in terms I could understand	0.6240 (61)	<0.001	0.7363 (61)	<0.001
Checked to be sure I understood everything	0.6936 (61)	<0.001	0.7051 (61)	<0.001
Encouraged me to ask questions	0.6121 (61)	<0.001	0.7717 (60)	<0.001
Involved me in decisions as much as I wanted	0.6863 (61)	<0.001	0.8120 (61)	<0.001
Discussed next steps, including any follow-up plans	0.7740 (60)	<0.001	0.7668 (61)	<0.001
Showed care and concern	0.6798 (60)	<0.001	0.6961 (61)	<0.001
Spent the right amount of time with me.	0.7466 (59)	<0.001	0.7193 (60)	<0.001