



Published in final edited form as:

J Trauma Acute Care Surg. 2023 January 01; 94(1): 93–100. doi:10.1097/TA.0000000000003663.

“We’re Playing on the Same Team”: Communication (Dis)connections Between Trauma Patients and Surgical Residents

Anna K. Huang, BA¹, Paige-Ashley Campbell, BS¹, Mihir J. Chaudhary, MD², Sophie Soklaridis, PhD³, Doriane Miller, MD⁴, Sonya Dinizulu, PhD⁵, Bradley Stolbach, PhD⁶, Franklin Cosey Gay, PhD⁷, Stephanie Washington, BA¹, Henry Olivera Perez, BS¹, Kristen Chalmers, BA¹, Frazer Tessema, BA¹, Marion Henry, MD⁸, Mark Slidell, MD⁸, Joseph Richardson, PhD⁹, Zinzi Bailey, ScD MSPH¹⁰, Tyra Owens, MA¹¹, Eric Wilkins¹¹, Valerie Burgest¹¹, Cragg Hardaway¹¹, Myles X. Francis¹¹, Anase Asom, BA¹, Itzel Lopez Hinojosa, BA¹, Jake Roggin¹¹, Ibraheem Hamzat, BS¹, Tanya Zakrisson, MD¹¹

¹University of Chicago, Pritzker School of Medicine

²University of California San Francisco – East Bay, Department of Surgery

³University of Toronto, Department of Psychiatry and Department of Family and Community Medicine

⁴University of Chicago, Department of Medicine

⁵University of Chicago, Department of Psychiatry and Behavioral Neurosciences

⁶University of Chicago, Department of Pediatrics

⁷University of Chicago, Crown School of Social Work

⁸University of Chicago, Department of Surgery, Section of Pediatric Surgery

⁹University of Maryland, Department of Anthropology

¹⁰University of Miami, Miller School of Medicine

Corresponding author: Anna Huang, 5134 S. Ingleside Ave, Apt 3A, Chicago, IL 60615, 832-712-9198 anna.huang@uchospitals.edu.

Authorship

Anna Huang participated in study design, collected and analyzed interview data, and drafted the manuscript. Paige-Ashley Campbell participated in study design and collected and analyzed interview data. Mihir Chaudhary contributed to study design, data analysis strategy, and data interpretation and edited the manuscript. Sophie Soklaridis contributed to data interpretation. Doriane Miller contributed to study design. Sonya Dinizulu and Bradley Stolbach contributed to data interpretation and edited the manuscript. Franklin Cosey Gay contributed to study design. Stephanie Washington participated in study design and collected and analyzed interview data. Henry Olivera Perez, Kristen Chalmers, and Frazer Tessema participated in study design, collected and analyzed interview data, and edited the manuscript. Marion Henry and Mark Slidell contributed to data interpretation and edited the manuscript. Joseph Richardson, Zinzi Bailey, Tyra Owens, Eric Wilkins, Valerie Burgest, and Myles X. Francis contributed to study design. Cragg Hardaway provided training in motivational interviewing and contributed to study design. Anase Asom collected interview data. Itzel Lopez Hinojosa and Jake Roggin analyzed interview data. Ibraheem Hamzat collected interview data. Tanya Zakrisson supervised the study; contributed to the data analysis strategy, data interpretation, and study design; and edited the manuscript.

This work will be presented in part at the January 2022 35th Eastern Association for the Surgery of Trauma Annual Scientific Assembly.

Disclosures

The authors report no conflicts of interest.

The authors have no conflicts of interest to declare.

¹¹University of Chicago, Department of Surgery, Section of Trauma and Acute Care Surgery

Abstract

Background: Patient-physician communication is key to better clinical outcomes and patient well-being. Communication between trauma patients and their physicians remains relatively unexplored. We aimed to identify and characterize the range of strengths and challenges in patient-physician communication in the setting of trauma care.

Methods: A qualitative, grounded theory approach was used to explore communication strengths and challenges for patients and residents. Patients previously admitted to the trauma service for violent injuries were recruited and interviewed in-person during their trauma clinic appointments. Surgical residents were recruited via email and interviewed virtually via Zoom. Anonymous, semi-structured interviews were conducted until thematic saturation was reached.

Results: Twenty-nine interviews with patients and 14 interviews with residents were conducted. Patients reported feeling ignored and misunderstood and having inadequate communication with physicians. Residents cited lack of time, patients' lack of health literacy, differences in background, and emotional responses to trauma as barriers to effective communication with patients. Patients and residents reported an understanding of each other's stressors, similar emotional experiences regarding traumatic stress, and a desire to communicate with each other in greater depth both inside and outside of the hospital.

Conclusions: Trauma patients and residents can feel disconnected due to the lack of time for thorough communication and differences in background; however, they understand each other's stressors and share similar emotional responses regarding trauma and a desire for increased communication, connection, and solidarity. Leveraging these shared values to guide interventions such as a resident curriculum may help bridge disconnects and improve their communication.

Level of evidence: VI (single qualitative study)

Keywords

patient-physician communication; quality of care; surgery residents

Introduction

Effective patient-physician communication is key to better clinical outcomes for patients¹⁻⁴ and physician wellbeing.^{2,5} Patient-physician communication is an area of critical attention especially for trauma patients, who often arrive at the hospital in a vulnerable, wounded state and may be frightened about their outcome.⁶ Patient-centered communication is also central to effective trauma-informed care,⁷ yet gunshot wound victims and other trauma patients may describe their inpatient experiences as impersonal, frustrating, and lacking adequate communication from their physicians.^{6,8} Assessing patient-physician communication in the setting of trauma care is a critical step towards improving the support patients receive during an extremely vulnerable time.

As trauma surgeons are the first point of access to the healthcare system for many patients, quality communication may not only improve patients' inpatient experience but also

better equip them for discharge and increase linkage to care. Improving patient-physician communication therefore may be one strategy for addressing racial and socioeconomic disparities in trauma-related outcomes. African American and Latino individuals experience higher rates of homicide and aggravated assaults¹⁰ and, as trauma patients, worse functional outcomes and higher rates of mortality independent of insurance status compared to their White counterparts.¹¹ Individuals of lower socioeconomic status (SES), as assessed by insurance status or median income of the individual's zip code, also experience higher rates of recurrent violent injury¹² and higher trauma mortality rates compared to those of higher SES.^{13,14} These groups also participate less and receive less information during patient-physician encounters.^{15,16} These differences in communication, which may partly arise from physicians' lack of structural competency regarding the social determinants of health,¹⁷ may contribute to corresponding inequities in outcomes by affecting patients' medical adherence,¹⁸ access to care, understanding of treatment options, and therapeutic alliance with their physicians.¹⁹

Therefore, we assessed the experiences of trauma patients and surgical residents at our institution regarding communication. Surgical residents were selected as they often have the most frequent contact with patients as part of the inpatient physician team. Our institution is a high-volume urban Level I trauma center which sees over 4,000 patients on average per year, with a 39–49% rate of penetrating trauma. Among our patients, firearm injury is the most common mechanism of injury. The purpose of this study was to identify and characterize strengths and challenges regarding complex patient-physician communication in the setting of trauma care through open-ended interviews with survivors of violent injury and with surgical residents.

Methods

Participants

Patients previously admitted to the trauma service for violent injuries were recruited during their follow-up appointments in trauma clinic. Gunshots, stabbings, and other mechanisms of intentional, interpersonal injury were considered violent injuries. General surgery residents of all years who had rotated at least once on the trauma service were recruited via email to volunteer for participation. Identifying characteristics of patients and residents (i.e., age, race/ethnicity, and other demographics) were not collected to protect interviewees' anonymity, encourage participants to freely share thoughts and ideas, and avoid biasing qualitative analysis. Nearly 78% of trauma patients at our institution are African American; 12% are Latino; 8% are White. Nearly 53% of patients in our service area live in poverty, with 1 in 2 households at risk of food insecurity.²⁰ Of all general surgery residents at our institution during the interview period (n=55), 20% were African American; 24% were Asian American; 55% were White; 0.02% were Middle Eastern/North African.

Data Collection

We developed a set of open-ended questions focusing on patients' and residents' experiences on the trauma service (Table 1). Community members who have experience with violence

and are leaders of community organizations reviewed the questions and provided feedback. Interviewers were 8 medical students trained in motivational interviewing by a community-based expert in order to practice trauma-informed technique and prevent interviewees' re-traumatization during the interviews. Semi-structured interviews were conducted until inductive thematic saturation was reached; i.e., further interviews did not reveal new themes.²¹ Interviews with patients took place in-person in trauma clinic. Interviews with residents took place over Zoom, a videoconferencing service which has been validated for use in qualitative methodology,²² using only the audio function to protect anonymity. Interview audio was recorded and professionally transcribed by a Health Insurance Portability and Accountability Act compliant service. Audio recordings and de-identified transcripts were stored on a secure server. Each transcript was assigned a numerical value, in order of interview, for quotation attribution.

All interviewees provided verbal informed consent. A \$50 gift card was offered to interviewees as compensation for their time. Approval for this study was obtained by the Institutional Review Board at our institution.

Data Analysis

Interviews were analyzed using grounded theory methodology, which entailed open, axial, and selective coding.²³ Each interview was coded by 2 separate evaluators to develop an initial codebook of emerging themes (open coding). All evaluators discussed the codes and achieved consensus on the codebook. One evaluator (A.K.H.) then analyzed all interviews to identify instances that matched and did not match the initial coding framework, expand and connect the codes (axial coding), and unify codes and themes to describe communication strengths and difficulties (selective coding). All members of the research team reviewed and provided feedback to finalize the codebook. The prevalence of each theme and subtheme was assessed across interviews.

The Standards for Reporting Qualitative Research²⁴ were followed in our data collection, analysis, and interpretation (Supplemental Digital Content, <http://links.lww.com/TA/C557>).

Results

Twenty-nine interviews with patients and fourteen interviews with residents were conducted. Clinic interviews with trauma patients lasted between 20–45 minutes. Zoom audio interview with surgical residents lasted between 30–60 minutes.

Main themes highlighted challenges and barriers regarding communication (Table 2); patients' and residents' emotional responses to trauma (Table 3); strengths and facilitators regarding communication (Table 4).

Challenges in communication

The theme of challenges in communication was evident in 9 patient and 12 resident interviews.

Inadequate information-giving by physicians—Both patients and residents perceived inadequate information-giving by residents, leading to poor communication. Patients described a frequent lack of adequate communication from the trauma team, especially at discharge. They were frustrated and confused by the lack of clarity regarding next steps in care. Residents also perceived they did not communicate adequately with patients and recognized that they often did not thoroughly counsel patients on post-discharge needs and next steps. One resident acknowledged that inadequate communication was stressful for patients.

Patients felt ignored and unheard—Patients at times felt ignored and unheard while admitted following violent injury. They were frustrated when providers did not understand the amount of pain they were in or did not give needed help.

Patients felt misunderstood by their physicians—Patients expressed frustration that physicians with different backgrounds, especially regarding race or class, often did not understand them; in turn, these physicians' communication was often ineffective and impersonal.

Differences in structural and cultural background are a barrier to communication—Residents similarly remarked that patients' lack of health literacy and differences in race, SES, and lived experiences between them and their patients often affected trust and communication, compounding misunderstanding.

Clinical workload is a barrier to communication—Residents identified the hospital-based stressors of the busy trauma service as communication barriers. They highlighted the overwhelming workload, remarking that they often lacked time to communicate and connect with their patients.

Emotional responses to trauma

Patients and residents also identified emotional responses to trauma that rendered effective communication difficult. The theme of emotional responses to trauma was evident in 12 patient and 8 resident interviews.

Patients and residents describe being in 'survival mode'—Patients and residents alluded to living and working in "war-like" conditions. Three patients described that a drive for survival governs how they and their communities respond to trauma and violence. Three residents described their experiences on the trauma service in terms of survival and war imagery.

Patients' posttraumatic responses—Patients described anger and grief related to their injury as well as nightmares, flashbacks, and difficulty sleeping. Residents observed that patients' posttraumatic emotional responses, such as aggression, could contribute to interpersonal conflicts and thereby impede communication.

Residents' posttraumatic responses—Residents similarly described experiencing grief and numbness, difficulty sleeping, and flashbacks in relation to the violent trauma they

witnessed on service. They recognized a “shared trauma” between them and their patients. Residents’ reactions to the trauma they witnessed could discourage them from connecting with their patients. Two residents described distancing themselves from patients in order to manage the emotional toll of the trauma service.

Strengths in patient-physician communication

The theme of strengths in patient-physician communication was evident in 18 patient and 11 resident interviews.

Similarities in structural and cultural background facilitate communication—

Three residents described stronger connections with patients of similar racial/ethnic or socioeconomic backgrounds to their own. In contrast, patients did not note these similarities in background. Three patients commented that very few, if any, physicians had similar backgrounds to them.

Open-mindedness, empathy, and listening facilitate communication—

Patients and residents emphasized the importance of trauma providers who were open-minded and strove to understand their patients’ perspectives. Patients commented that cultural and emotional disconnects between them and their physicians could be resolved by greater listening and open-mindedness. Residents also noted that such empathy can help resolve disconnects between them and their patients.

Patients appreciated connecting with their physicians—

Patients appreciated casual, comfortable conversations with their physicians. One patient described their comfort with talking to one of the surgical residents because their conversations were less formal. Two patients wanted more mutual relationships with their physicians. They expressed a desire for reciprocity and enjoyed participating equally in these relationships.

Quality care and communication made patients’ experiences positive—

Multiple patients mentioned positive experiences during their hospitalization and reported that genuine care and clear communication from the trauma surgery team made these experiences positive. Three patients felt that their physicians’ empathy and care were as important as medical treatment in their recovery.

Residents similarly remarked that empathy and quality communication strengthened their relationships with patients and improved patient care.

Quality communication also improves residents’ experience—

Good communication and strong connections with their patients helped residents feel more fulfilled in their work.

Residents’ understanding of patient stressors—

Patients named the cost of treatment, pain from their injuries, feeling like their concerns were unacknowledged, inability to take care of their family, and the restrictions of being hospitalized as stressors related to their injury. Residents listed these same issues, emphasizing the uncertainty and emotional toll that accompany complex medical issues, when asked about patients’

stressors following injury. Patients and residents both emphasized the loss of autonomy when hospitalized as a significant stressor for patients. One patient described how this loss of autonomy evoked their memories of being incarcerated.

Patients' understanding of resident stressors—Patients recognized the significant workload and emotional toll of the trauma service and observed that these constraints often prevented their physicians from spending more time with them:

Discussion

In our sample of violently injured trauma patients and surgical residents at a high-volume urban level I trauma center, patients at times felt unheard and desired greater communication and understanding from their physicians. Residents correspondingly expressed a desire to provide empathic care and communicate effectively with their patients. However, they were often impeded in doing so by patient-physician differences in racial/ethnic and socioeconomic background as well as an overwhelming clinical workload. Patients' and residents' emotional responses to trauma, which were quite similar, also hindered communication. Despite patient- and resident-perceived inadequacies in communication, residents and patients understood each other's stressors. Many patients also positively described genuine care from and strong connections with their physicians. To our knowledge, this study is the first to specifically explore patient-physician communication between trauma patients and surgical residents.

Patients and residents described different aspects of a common struggle against structural and institutional constraints such as race, class, and clinical workload. Both framed this struggle as one for survival and even reminiscent of war. These findings align with the solidarity model of the patient-physician relationship as described by Shutzberg, in which power resides with larger structural forces as opposed to either physician or patient. The patient and physician, both disempowered by these same forces, are thus linked together in solidarity.²⁵ Restructuring our understanding of patient-physician relationships in terms of this solidarity may help strengthen the mutual relationships and reciprocal communication that are valued by both patients and residents. This philosophical restructuring has the potential to inform how communication skills are taught to residents and students and help trauma surgeons find common ground with their patients, who are often disproportionately subjected to structural forces such as inequities in access to healthcare.²⁶

Improving patient-physician communication on the trauma service may also help alleviate patients' stress and uncertainty during hospitalization, strengthen patient-physician relationships, and encourage patients' linkage to care. Patient-centered communication is relatively scarce among patients who differ from their providers in terms of racial, ethnic, or social background.^{28–31} Our patients similarly described patient-physician disconnects due to differences in background and suggested that increased communication and empathy would bridge these disconnects. As quality communication is associated with clinical outcomes and medical adherence,¹⁸ improving communication may also be an effective tool for helping address health inequities in trauma care.¹¹ Additionally, as indicated by patients and residents, the post-discharge period can be a particularly vulnerable time for

patients as they often do not receive adequate information at discharge, are still recovering physically and mentally, and may return to the same settings in which they were injured. While follow-up in trauma clinic is a crucial point of care to link patients to needed resources and services, patients' attendance of these appointments is often quite low.^{32,33} Improving communication, especially prior to discharge, may help address patients' needs, encourage patients to attend their follow-up appointments, and increase their linkage to care and resources.

Patient-physician communication also has implications for physician wellbeing. Our residents described the trauma service as stressful and potentially traumatizing. Similarly, a national survey of trauma surgeons found that 40% endorsed symptoms of posttraumatic stress disorder.³⁴ Finding meaning in difficult patient care situations may be one strategy to combat this traumatic stress.³⁵ Given that our residents reported finding fulfillment in communicating and connecting with patients, strengthening patient-physician communication may help mitigate the emotional burdens of trauma surgeons as well as their patients.

The experiences and perspectives reported here may help inform future interventions to improve patient care and resident education. Institutional changes to reduce the trauma team's clinical workload, such as increased staffing, would enable more time for communication. Instituting a resident curriculum that includes training in communication skills and structural competency may better prepare residents to understand and care for trauma patients from various backgrounds. Simulation-based communication curricula have shown promise in improving surgical residents' communication skills.^{36,37} Focusing on a more reciprocal, less formalized communication style and demonstration of empathy, as highlighted by our patients, may also help facilitate strong communication and connection. Increasing racial/ethnic and socioeconomic diversity in physician recruitment may help overcome cultural barriers to patient-physician communication. Increasing psychological and psychiatric support for residents and patients may also help address their traumatic stress and its impact on communication. As suggested by our participants, opportunities for residents to talk with patients and community members, such as patient-led panels or reciprocal exchanges in a non-clinical setting, may help residents better understand their patients and vice versa. Exchanges such as these may help both residents and patients recognize that they are truly playing on the same team.

Limitations

We acknowledge several limitations of our study. First, the single-institution nature of our sample size limits the generalizability of our conclusions regarding the experiences of violently injured patients and surgical residents. Second, some degree of selection bias may have influenced our participants' responses. Patients who attended their trauma clinic appointments may have been more likely to have had positive experiences with physicians. Additionally, these patients may have felt more empowered to leave home or work and safely travel to clinic. Therefore, they may not be fully representative of our overall trauma patient population. Institutional mistrust or fear of repercussions may have also limited patients' willingness to share negative experiences. Third, we did not collect demographics

of our study participants to preserve their anonymity; however, this lack of data prevents us from demonstrating that our study sample is truly representative of our institution's patient population and resident cohort. Lastly, any bias of our research team when interviewing individuals and analyzing their responses may have influenced our findings.

Conclusions

Trauma patients and surgical residents often feel disconnected due to lack of time for adequate communication and differences in structural and cultural background; however, they understand each other's stressors and share similar emotional experiences regarding trauma and a desire for increased communication and connection. Leveraging these shared values, as well as patients' and residents' self-reported needs, to guide interventions such as a resident curriculum may help strengthen their communication, mitigate their emotional toll related to trauma, and build solidarity.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

We thank Carla Alexander-Grant for her assistance with screening patients in trauma clinic for our study. We thank our patients and residents for their generous participation in this study. We would like to thank all those who care for trauma patients and who work to prevent gun violence.

Funding

This work was supported in full by a Bucksbaum Institute for Clinical Excellence Pilot Grant.

References

1. Stewart MA. Effective physician-patient communication and health outcomes: a review. *CMAJ Can Med Assoc J J Assoc Medicale Can.* 1995;152(9):1423–1433.
2. Haverfield MC, Tierney A, Schwartz R, Bass MB, Brown-Johnson C, Zionts DL, et al. Can Patient-Provider Interpersonal Interventions Achieve the Quadruple Aim of Healthcare? A Systematic Review. *J Gen Intern Med.* 2020;35(7):2107–2117. [PubMed: 31919725]
3. Kaplan SH, Greenfield S, Ware JE. Assessing the effects of physician-patient interactions on the outcomes of chronic disease. *Med Care.* 1989;27(3 Suppl):S110–127. [PubMed: 2646486]
4. Kelley JM, Kraft-Todd G, Schapira L, Kossowsky J, Riess H. The influence of the patient-clinician relationship on healthcare outcomes: a systematic review and meta-analysis of randomized controlled trials. *PLoS One.* 2014;9(4):e94207.
5. Horowitz CR, Suchman AL, Branch WT, Frankel RM. What Do Doctors Find Meaningful about Their Work? *Ann Intern Med.* 2003;138(9):772–775. [PubMed: 12729445]
6. Patton D, Sodhi A, Affinati S, Lee J, Crandall M. Post-Discharge Needs of Victims of Gun Violence in Chicago: A Qualitative Study. *J Interpers Violence.* 2019;34(1):135–155. [PubMed: 27638688]
7. Raja S, Hasnain M, Hoersch M, Gove-Yin S, Rajagopalan C. Trauma Informed Care in Medicine: Current Knowledge and Future Research Directions. *Fam Community Health.* 2015;38(3):216–226. [PubMed: 26017000]
8. Braaf S, Ameratunga S, Nunn A, Christie N, Teague W, Judson R, et al. Patient-identified information and communication needs in the context of major trauma. *BMC Health Serv Res.* 2018;18:163. [PubMed: 29514689]

9. Kaufman EJ, Richmond TS, Wiebe DJ, Jacoby SF, Holena DN. Patient Experiences of Trauma Resuscitation. *JAMA Surg.* 2017;152(9):843–850. [PubMed: 28564706]
10. Sumner SA, Mercy JA, Dahlberg LL, Hillis SD, Klevens J, Houry D. Violence in the United States. *JAMA.* 2015;314(5):478–488. [PubMed: 26241599]
11. Haider AH, Weygandt PL, Bentley JM, Monn MF, Rehman KA, Zarzaur BL, et al. Disparities in trauma care and outcomes in the United States: a systematic review and meta-analysis. *J Trauma Acute Care Surg.* 2013;74(5):1195–1205. [PubMed: 23609267]
12. Cooper C, Eslinger D, Nash D, Al Zawahri J, Stolley P. Repeat Victims of Violence: Report of a Large Concurrent Case-control Study. *Arch Surg.* 2000;135(7):837–843. [PubMed: 10896379]
13. Arthur M, Hedges JR, Newgard CD, Diggs BS, Mullins RJ. Racial Disparities in Mortality Among Adults Hospitalized After Injury. *Med Care.* 2008;46(2):192–199. [PubMed: 18219248]
14. Haider AH, Chang DC, Efron DT, Haut ER, Crandall M, Cornwell EE. Race and insurance status as risk factors for trauma mortality. *Arch Surg Chic Ill 1960.* 2008;143(10):945–949.
15. Willems S, De Maesschalck S, Deveugele M, Derese A, De Maeseneer J. Socio-economic status of the patient and doctor-patient communication: does it make a difference? *Patient Educ Couns.* 2005;56(2):139–146. [PubMed: 15653242]
16. Gary KW, Arango-Lasprilla JC, Stevens LF. Do racial/ethnic differences exist in post-injury outcomes after TBI? A comprehensive review of the literature. *Brain Inj.* 2009;23(10):775–789. [PubMed: 19697166]
17. Metzl JM, Hansen H. Structural competency: theorizing a new medical engagement with stigma and inequality. *Soc Sci Med* 1982. 2014;103:126–133.
18. Zolnieriek KBH, Dimatteo MR. Physician communication and patient adherence to treatment: a meta-analysis. *Med Care.* 2009;47(8):826–834. [PubMed: 19584762]
19. Street RL, Makoul G, Arora NK, Epstein RM. How does communication heal? Pathways linking clinician–patient communication to health outcomes. *Patient Educ Couns.* 2009;74(3):295–301. [PubMed: 19150199]
20. 2018–2019 Community Health Needs Assessment - UChicago Medicine. University of Chicago Medical Center; 2019. <https://issuu.com/communitybenefit-ucm/docs/ucm-2019-chna>. Accessed December 1, 2021.
21. Saunders B, Sim J, Kingstone T, Baker S, Waterfield J, Bartlam B, et al. Saturation in qualitative research: exploring its conceptualization and operationalization. *Qual Quant.* 2018;52(4):1893–1907. [PubMed: 29937585]
22. Archibald MM, Ambagtsheer RC, Casey MG, Lawless M. Using Zoom Videoconferencing for Qualitative Data Collection: Perceptions and Experiences of Researchers and Participants. *Int J Qual Methods.* 2019;18.
23. Glaser BG, Strauss AL. *The Discovery of Grounded Theory: Strategies for Qualitative Research.* Chicago, IL: Aldine de Gruyter; 1967.
24. O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for Reporting Qualitative Research: A Synthesis of Recommendations. *Acad Med.* 2014;89(9):1245–1251. [PubMed: 24979285]
25. Shutzberg M The Doctor as Parent, Partner, Provider... or Comrade? Distribution of Power in Past and Present Models of the Doctor–Patient Relationship. *Health Care Anal.* 2021;29(3):231–248. [PubMed: 33905025]
26. Sossenheimer PH, Andersen MJ, Clermont MH, Hoppenot CV, Palma AA, Rogers SO. Structural Violence and Trauma Outcomes: An Ethical Framework for Practical Solutions. *J Am Coll Surg.* 2018;227(5):537–542. [PubMed: 30149067]
27. Jiang S Pathway Linking Patient-Centered Communication to Emotional Well-Being: Taking into Account Patient Satisfaction and Emotion Management. *J Health Commun.* 2017;22(3):234–242. [PubMed: 28248629]
28. Shen MJ, Peterson EB, Costas-Muñiz R, Hernandez MH, Jewell ST, Matsoukas K, et al. The Effects of Race and Racial Concordance on Patient-Physician Communication: A Systematic Review of the Literature. *J Racial Ethn Health Disparities.* 2018;5(1):117–140. [PubMed: 28275996]

29. Johnson RL, Roter D, Powe NR, Cooper LA. Patient race/ethnicity and quality of patient-physician communication during medical visits. *Am J Public Health.* 2004;94(12):2084–2090. [PubMed: 15569958]
30. Thornton RLJ, Powe NR, Roter D, Cooper LA. Patient-physician social concordance, medical visit communication and patients' perceptions of health care quality. *Patient Educ Couns.* 2011;85(3):e201–208. [PubMed: 21840150]
31. Verlinde E, De Laender N, De Maesschalck S, Deveugele M, Willems S. The social gradient in doctor-patient communication. *Int J Equity Health.* 2012;11:12. [PubMed: 22409902]
32. Stone ME, Marsh J, Cucuzzo J, Reddy SH, Teperman S, Kaban JM. Factors associated with trauma clinic follow-up compliance after discharge: experience at an urban Level I trauma center. *J Trauma Acute Care Surg.* 2014;76(1):185–190. [PubMed: 24368377]
33. Aaland MO, Marose K, Zhu TH. The lost to trauma patient follow-up: a system or patient problem. *J Trauma Acute Care Surg.* 2012;73(6):1507–1511. [PubMed: 23147179]
34. Joseph B, Pandit V, Hadeed G, Kulvatunyou N, Zangbar B, Tang A, et al. Unveiling posttraumatic stress disorder in trauma surgeons: a national survey. *J Trauma Acute Care Surg.* 2014;77(1):148–154; discussion 154. [PubMed: 24977770]
35. Komisar J, McFarland DC. Is empathy associated with a self-ascribed sense of meaning among resident physicians working with patients nearing the end of life on a hematology-oncology ward? *Psychooncology.* 2017;26(9):1403–1406. [PubMed: 27648813]
36. Trickey AW, Newcomb AB, Porrey M, Piscitani F, Wright J, Graling P, et al. Two-Year Experience Implementing a Curriculum to Improve Residents' Patient-Centered Communication Skills. *J Surg Educ.* 2017;74(6):e124–e132. [PubMed: 28756146]
37. Kapadia MR, White AV, Peters L, Kreiter C, Koch KE, Rosenbaum ME. Teaching Patient-Related Communication to Surgical Residents in Brief Training Sessions. *J Surg Educ.* 2020;77(6):1496–1502. [PubMed: 32534941]

Table 1.

Interview questions.

Questions for patients	Questions for residents
<ul style="list-style-type: none"> • When you think back to your experience in the hospital when you came in after your injury, what do you remember the most and why? • What made your hospital experience more stressful? • What made your hospital experience more comfortable? • How has trauma affected your life? • How might who you are (such as where you live, what you look like, or how much money you might have) affect the care you receive from doctors, nurses, or the hospital overall? • Sometimes healthcare providers have different backgrounds to their patients, how might that affect the kind of care patients get? • Are there any concerns you have had after discharge from hospital? • What makes it easier or harder to heal physically and mentally after your injury? • How would the ideal trauma center look like to you in terms of best serving our patients? • Living in Chicago at times is not easy. In your opinion, what do you think can help student doctors understand what your own life is like? 	<ul style="list-style-type: none"> • What was an average day for you like on the trauma service? • Can you describe some high points of being on the trauma service? Low points? • Trauma is known to be a stressful rotation. Can you describe what your mental health was like during the trauma rotation? • When patients are admitted to the trauma service, what might be sources of stress for them during their time? • Many times, the life experiences of residents and of trauma patients are very different. What can help the trainees understand what their patient's life is like? • How might being different from our patients in terms of race, ethnicity or class impact our relationship with our patients? • What do you think patients are concerned about upon discharge? What are you worried about for their discharge? • How would the ideal trauma center look like to you in terms of best serving our patients? • What is the best way for us to teach trainees who take care of trauma patients affected by violence?

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

Table 2.

Main theme of challenges in patient-physician communication.

Sub-theme	Example quotes
Inadequate information-giving by physicians	Patient 1: "People didn't seem to treat me different [during hospitalization] anyway. Maybe at the end, where they didn't give me most of the information. Maybe I should have asked more questions." Resident 5: "I can't tell you the number of times I've spoken to patients having been in the hospital for a week or more and they say that's the first time somebody's told me what happened to me." Resident 6: "There have been days where the nurses have paged me end to end over and over and over again to come talk to a patient, but I can't because there are people dying and we have to go try to help them. That kind of feels bad for us. I imagine it's exceedingly frustrating for the patients because they have no sense of closure. None of their questions were answered."
Patients were frustrated and confused regarding next steps following discharge	Patient 23: "They like, just let me back out to the world...They're just like, you're alive. Here, take this. We'll see you in this such a time. I was like, I didn't even know what was going on." Resident 12: "I'm guilty of this too, but you go in and you say to the patient we need you to do X, Y, or Z at home and they say okay, and then we say okay. And I don't know if we spend enough time to confirm that people understand."
Patients felt ignored and unheard	Patient 1: "In that moment I was like, don't treat me like I'm just another person or another number here, like it better not be why I'm having to wait for this as I'm in extreme pain...I'm in the room and I'm watching people walk by, and I'm just like, yo. And I'm trying to scream, and I'm like they don't hear me? Do they hear me?"
Patients felt misunderstood by physicians who were of different backgrounds than them	Patient 18: "And then the way that [they talked] condescending to me...I felt that there was a lot of assumptions as far as my ignorance by the way they were communicating with me." Patient 13: "When people come from a different background and have no knowledge of you or your people they tend to guess, ask, wonder, and as the saying goes, is this right? Is this right? Is this right? They don't know so they are like picking their way through...They, like as my mother used to say, feed them with a long-handled spoon because they're not sure how to give them the medicine."
Differences in structural and cultural background are a barrier to communication	Resident 5: "Sometimes [patients] think that people are talking above them or over them rather than with them." Resident 6: "One thing that is lost on a lot of people a lot of the time, is that this person in front of us did not grow up the same way many of the rest of us did and they're not going to respond to our words and our actions in the same way that we would expect them to."
Clinical workload is a barrier to communication	Resident 14: "I wish we had numerous amounts of time to spend and talk with our patients to really...because that's where the teaching comes. You can relate to them and you can start implementing change in their lives. So that is the beauty of it. You just don't have time." Resident 12: "One way we could address [understanding patients] is spending more time with our patients and talking to them about the kind of trauma they experience at home. But there's so many patients on the service that you almost never get the opportunity to do that...it's not even that you don't know much about the patient's background, it's like you don't even know who the patient is."

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

Table 3.

Main theme of emotional responses to trauma.

Sub-theme	Example quotes
Patients describe their conditions as ones in which they are simply trying to survive	Patient 4: "We just got to survive and make the best of it." Patient 15: "Everybody's doing something for a reason. Some people might not have food on their plates. That's why, you know, survival is...the only way they can express their feelings."
Residents describe their experience on the trauma service in terms of survival and war imagery	Resident 3: "It's basically like survival mode...I have this mentality of, I'm going to battle." Resident 14: "I thought I was in a war zone when I was on shift."
Patients describe posttraumatic emotional responses and symptoms	Patient 4: "I was real mean up in here, antisocial...To me, it was hell up in here." Patient 8: "I wake up out of my sleep at night and can't go back, 'cause I steady having nightmares, steady having flashbacks of what happened to me."
Patients' posttraumatic responses may lead to conflicts between patient and care team	Resident 11: "Some of our patients express like their stress and hurt over their situation by lashing out...and then a healthcare provider sometimes reacts in a way that's kind of, I won't say lashing back out but they're like...That develops this friction and they get angry and upset about their care and not willing to accept as much of the care team's direction." Resident 7: "A lot of times these patients who are victims of violent and nonviolent trauma, they tend to be angrier, or more upset, or more sad, or more depressed... when patients are angry or upset they tend to sometimes take that out on the nursing staff, or even the physician and advanced practice providers. And that, I think, impacts our views of the patient and our ability to objectively care for patients as well."
Residents describe posttraumatic emotional responses and symptoms	Resident 14: "You're just fatigued, you're tired of the killing, you're tired of the acuity, the lack of sleep, the amount of effort and energy put forth, and just the emotional trauma." Resident 2: "When I woke up for my shifts...the first thing, a lot of the times, what I would see were the shooting victims from the night before."
Residents' reaction to trauma may discourage them from connecting with patients	Resident 12: "A lot of people fall into a bad habit of, kind of like, dehumanizing everything on the service to try to cope with everything you're seeing."

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

Table 4.

Main theme of strengths of communication.

Subthemes	Example quotes
Residents perceive that similarities in structural and cultural background facilitate communication	<p>Resident 14: "I'm able to relate to a lot of the patients that experience trauma...I feel...there's a level of comfort. Hey, oh man, I've never seen a Black doctor before, wow...They're upset when they're talking to you, hey, what do you know about this? And it's like hey, actually, I do."</p> <p>Resident 13: "I come from a poor background. And so I just feel like it's almost like I know the other side...It's nice when you look like them because you can speak with them on their level, if they're not used to big words, and really connect with them...I've had family members arrested, I've had family members who've gone to jail. I have a lot of things in my background that, I mean, I can connect with patients."</p>
Open-mindedness, empathy, and listening facilitate communication even in the face of different backgrounds	<p>Patient 4: "I think some doctors do need to learn, like, what other patients going through, 'cause everybody didn't grow up the same...They need to understand what they're dealing with."</p> <p>Interviewer: "What are some ways you think we could train them to do that?" Patient 4: "Sit down and talk to their patients...Come and talk to the patient for a couple minutes, get inside his head, and then you feel him."</p> <p>Resident 9: "You have to have some compassion, understanding, and understand that there might be reasons for mistrust...or reasons the patients might not participate or be able to do what you ask. And I think most of the time when you approach it that way, and you foster clear communication, the patients appreciate your effort."</p>
Patients appreciated casual, comfortable conversations	<p>Patient 20: "She [surgical resident] was unique, I mean, in just her appearance and the way she acted toward me and stuff like that. It was just, it was more of a, like, meeting somebody on the street than it was like this formal doctor-patient thing...which I think was a good thing for her because it made me very relaxed, you know, talking to her."</p>
Patients desired reciprocal relationships with their physicians	<p>Patient 26: "Because I don't want it to be just like, oh, this person come in and do their job and go. I want to try to put a smile on their face, too, because they're helping me out."</p> <p>Patient 1: "Like [my providers and I] would talk, you know? It wasn't just work. So it was really nice...it was like reciprocal. It wasn't like okay, this person, eh."</p>
Quality care and communication made patients' experiences positive	<p>Patient 23: "What makes [coping with my injury] easier is, you know, when I talk to the doctors and everything. They assure me, you know, that I'm going to be back [at work]."</p> <p>Patient 3: "They treated me with respect, talked to me with respect. Everything I asked for, they gave to me. They helped me a lot, talked to me. It was cool."</p>
Patients perceived that physicians' empathy and care played a role in their recovery	<p>Patient 18: "Ninety percent of the people that I dealt with who worked to make me better did so from the inside out first, meaning that regardless of their medical skills or medical education, the fact that they appeared to care, I believe, did more for my healing than what they were actually able to do from a practical medical standpoint."</p> <p>Patient 17: "I had a real successful recovery. And like I say, it's all due to how they treated us. I'm pretty sure if they treated us bad, you know, it would be real, you know, I'd probably have a different experience. But no, we had a real good experience."</p>
Residents perceive that empathy and quality communication improved patient care	<p>Resident 5: "I think communicating better with them and including them in their healthcare decisions like you would many other patients is really an important part of their recovery."</p> <p>Resident 6: "The biggest thing that we can do to make [hospital care] palatable for the patients and to make it so they understand that we're kind of playing on the same team, is to go on their level and to actually talk to them about what's going on."</p>
Quality communication also improves residents' experience	<p>Resident 11: "One of the other really satisfying things in the day is when you have a little bit of time to talk to patients a little bit longer."</p>
Residents understand patients' stressors	<p>Resident 5: "You're first of all very constrained. You feel like you're restricted to a hospital, you're sick, you want to do these things that people are telling you to do. You feel like you've got to do them because it's for your benefit. They don't really feel like they have a choice. And I think the loss of autonomy is a big, big deal for them."</p> <p>Patient 22: "[Being hospitalized] made me feel confined, because I've been in jail a lot...at the end of the day, there's still somebody telling you that you can't go or what you can and what you can't do. So, I understand that it's more help than harm, but at the same time, the situation don't look different. It's just ain't no locked doors."</p>
Patients understand residents' stressors	<p>Patient 1: "Because of the trauma center there was just so much that's like coming in here, and it's been like wow, doctors are seeing a lot...obviously they're caring for people and that's their job, but it's, like, it must be mentally just way—like it wears you out, probably, just seeing so many people come in shot or, you know, violently hurt. So it seemed like it's taken kind of, that kind of toll."</p> <p>Patient 23: "They're sewing up people, saving a lot of lives. Like, they're doing a lot and I know they're limited. It's not like 1,000 doctors coming in to work every day, so I think we should get them praised on that."</p>

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript