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The Desired Role of Healthcare Provider in Guiding Older Patients with Distal Radius Fractures: A Qualitative Analysis

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Abstract

Purpose—Understanding patient preferences for shared decision-making is valuable for surgeons to advance patient-centered care, particularly in cases where there is not a clearly superior treatment option, like distal radius fracture (DRF). Existing evidence presents conflicting views on the desired role of the provider among older patients when making medical decisions. We aimed to investigate the perceived versus desired role of the provider in older adult patients with DRF.

Methods—Thirty patients (> 62 years old) who had sustained a DRF within the past five years were recruited from the screening process of the Wrist and Radius Injury Surgical Trial at principal investigator’s site using purposive sampling. A trained member of the research team conducted interviews in a semi-structured format with the help of an interview guide. Findings were derived following the principles of grounded theory.

Results—Participants experienced varied levels of shared decision-making with the hand surgeon. Subjects’ perceived role of the surgeon did not always match their desired role. Most patients placed distinct trust in the recommendations of hand specialists regarding the technical aspects of the treatment. Nonetheless, respondents wanted to provide input when decisions pertained to outcomes or functionality. Many patients sought outside support from family or friends in the healthcare field, regardless of the outside source’s medical specialty.

Conclusions—Despite conflicting evidence, most older adult patients desire a shared approach when making treatment decisions. Exchanging information and preferences on outcomes of each

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treatment option may be more important to the patient than detailing the specific technical aspects of their care.

Keywords

Qualitative; distal radius fracture; shared decision-making; healthcare provider; WRIST

The National Academy of Medicine identified patient-centered care as one of six aims to improve healthcare.¹ The Academy advocates that a patient should always be permitted to play an active role in medical decision-making, and that having patient values drive clinical decision-making will improve both patient and physician satisfaction. Historically, the patient-provider relationship has been paternalistic in nature;² however, it has been established in more recent years that many patients desire a joint role when making medical decisions.³ Patient involvement adds considerable insight to decisions when there is not a clearly superior option.⁴ In such cases, patients can identify their preferences for specific treatment details that may not be as important to the surgeon, such as scar size or treatment facility.

Numerous studies have attempted to gauge patient preferences for shared decision-making for specific diseases and among unique populations. In a survey of 99 older adult patients seeking treatment for a distal radius fracture (DRF), Dardas et al. found that 81% of participants favored shared responsibility between the patient and the surgeon when making a treatment decision.⁵ These results contradict previous evidence that claimed older patients are less likely to prefer an active role when choosing a treatment.⁶⁻⁸ DRF represents a condition in which comparable functional outcomes may result from the different available modes of treatment,⁹⁻¹¹ under these circumstances decisions for the most appropriate intervention must be based on other factors. Variation in the literature regarding the desired role of the patient and provider when making treatment decisions may be explained by a lack of differentiation between different aspects of a decision.² For example, though patients may want to be consulted about the impact a treatment may have on their daily lives, they may be intimidated by, or simply not interested in, the technical aspects of treatment.

A qualitative research design can shed light on this knowledge gap by facilitating conversation between researchers and participants to identify common themes from the participants' perspective.¹² As incidence rates of DRFs among the older adult population climb,¹³⁻¹⁵ the associated cost and burden of this group of patients on the medical system will also increase.¹⁶ Expanding on the desired role of the healthcare provider, from a patient perspective, can be advantageous for physicians to promote effective and safe patient-centered efforts. In this study, we interviewed older adults to clarify the influence of healthcare providers on this group's decisions, experience, and satisfaction throughout their DRF treatment. We aimed to expand on the actual versus desired role of the provider from a patient perspective.

Materials & Methods

Study Design

Whereas the purpose of a quantitative study is to generate numerical data and uncover patterns, qualitative designs are used to gain insight and depth by adding perspective. We used grounded theory to guide study design and protocol. Grounded theory is valuable to medical research because it emphasizes the use of qualitative interpretations to fuel quantitative investigation.^{12,17} Findings can be applied to build hypotheses that can be empirically tested, which may be helpful to surgeons, while navigating the balance between evidence-based medicine and patient-centered care. Institutional review board approval was obtained prior to study recruitment.

Study Sample

All participants were identified retrospectively after having been previously screened for the ongoing Wrist and Radius Injury Surgical Trial (WRIST) at the Coordinating Center. WRIST is a multi-center international trial in which patients age 60 or older at the time of fracture, are randomized to receive one of three surgical treatments (volar locking plating system [VLPS], external fixator, or percutaneous pinning) or elect non-operative treatment. By the time of recruitment for the present study, every subject had already received treatment for their fracture, either as a part of WRIST or as a patient who did not participate in the trial.

We used purposive sampling to ensure that each participant had completed a thorough discussion with a hand surgeon about the advantages and disadvantages of the available modes of treatment, regardless of whether the individual had enrolled in the WRIST study. Because this is a study of decision-making, we specifically targeted patients who had been recruited for WRIST but who declined enrollment, citing a preference for a particular treatment. To supplement this group, we also targeted patients who were ineligible for WRIST due to fracture characteristics, but for whom all three surgical treatment methods would be appropriate. We identified these patients using our screening log of individuals who sustained a DRF during the WRIST recruitment period, but were ineligible to participate. We reviewed outpatient visit and operative notes from a patient's encounters with his or her hand surgeon to confirm that all treatment options were appropriate. Finally, we included enrolled WRIST participants as a control group because, by consenting to be randomized, it was assumed that they had no clear treatment preference. We excluded patients who did not speak English and those with a diagnosis of memory loss or dementia. Patients were initially approached by mail, those who did not respond were contacted once more via the institution's online portal.

Interviews

Semi-structured interviews were initiated with the help of an interview guide (Appendix 1). The interview guide consisted of open-ended questions developed after a thorough literature review and modified as needed throughout the interview process. Questions were pilot tested on three older individuals before data collection.

Patients were interviewed in person at our research facility. Because of transportation limitations, one participant was interviewed via phone. One of two experienced research assistants (HEH [female, B.S.] or JSN [male, B.S.]) conducted interviews. Written informed consent was obtained. We audio recorded all interviews and transcribed the interactions verbatim. If family members or caregivers were also present at the interview, they were invited to partake in the conversation. We compensated participants with a \$100 gift card.

Content Verification

We established *a priori* to continue interviews beyond saturation, the point at which no new information arises. Although we agreed that we had reached saturation after the 27th interview, we conducted three additional interviews for the opportunity to verify content and permit subjects to provide feedback on our findings. This process, known as participant or member checking, allows respondents to affirm or challenge the ideas that researchers identify as important.¹⁸ Upon conclusion of the final 3 interviews, the investigator read off a list of relevant themes developed by the research team and asked the participant to elaborate on any point he/she felt was incorrect. As an additional verification measure, we provided participants interview transcripts upon request. Only one participant requested a copy, no corrections were returned.

Coding & Analysis

After the fifth interview, three members of the research team (HEH, JSN, and MJS) independently performed open coding by carefully reviewing each transcript to identify concepts of interest. The coders met to compare results and generated a list of themes used to develop a code chart (Appendix 2). We modified the interview guide, as new themes arose, to explore these ideas with future participants. Once the code chart was finalized, the two primary coders individually performed focused coding, in which transcripts were reviewed and codes applied, on interviews 1–20. They met periodically to discuss their results and debate any discrepancies. By the 20th interview coding was consistent among the primary coders; in the interest of efficiency, the final 10 interviews were coded by only one team member.

Results

We conducted interviews with 30 older adult patients who had sustained a DRF in the past 5 years. All four treatment methods assessed in WRIST (cast, VLPS, external fixator, and pinning) were represented in our sample. The duration of interviews averaged 24:23 minutes, not considering the time reviewing informed consent, pre-study questions from the participant, or compensation forms. Characteristics of the study sample are presented in Table 1. Though we asked questions on topics such as fracture mechanism, recovery experience, and outcomes, participants spent much of the interview discussing interactions and experiences with various healthcare providers. Three major themes arose: (1) the perceived versus desired role of the hand surgeon, (2) preferences for decision-making, and (3) the influence of outside healthcare affiliates on patients' decision-making process.

Perceived versus Desired Role of the Hand Surgeon

From our analysis, it became apparent that the perceived and desired role of the surgeon did not always align (Table 2). Of the participants who were not randomized to receive a particular treatment as a part of WRIST (N=15), seven (46%) described that the surgeon alone settled on the final treatment option. These subjects explained that they were either told that they needed surgery (N=5) or only required a cast or splint (N=2). Those who underwent surgery were all treated with VLPS. One respondent, a 74-year-old female who received a cast, was displeased, noting she would have elected a surgical treatment route if given the choice. Others were accepting of the physician's paternalistic approach (Table 3a). They detailed the ease associated with not needing to consider the options critically. Subjects who previously underwent treatment for more serious conditions, breast cancer, for instance, clarified that their decision preferences for a DRF were dissimilar to those for that more serious condition (Table 3b). Despite having multiple options for DRF treatment, a fracture was perceived as more straightforward than other conditions; thus, less of an active role in decision-making was desired.

Five non-WRIST participants expressed that the surgeon left the final decision solely in their hands. Three from this group had previously sustained a DRF, and all elected a different treatment option for their most recent injury. Because of their previous treatment experiences, these subjects were adamant that they make the final decision this time (Table 4a). Conversely, one respondent reported she felt frustrated that the surgeon did not suggest a superior option (Table 4b). The subject, a 65-year-old female who elected VLPS, elaborated that she had difficulty deciding on her own because she was not able to think clearly given the amount of pain she was in and relied on her daughter to decide.

Two of the WRIST participants described a similar desire for surgeon-led decisions. Both suggested that part of the reason they partook in the surgical trial was because they did not want to make the decision alone (Table 5). These subjects indicated that having the computer pick an option for them at random was more desirable than picking themselves.

The remaining three non-WRIST subjects described a dual decision-making process between patient and the physician (Table 6a). In general, none of the participants who engaged in shared-decisions with their surgeon were dissatisfied with the decision-making process. Furthermore, when subjects in the WRIST group were asked about the role they would have wanted if they had had a choice, almost all (N=13) described a mutualistic approach (Table 6b). Despite their involvement in the surgical trial and their consent to receive randomized treatment, many in this control group still considered other aspects of their decisions, such as deciding to partake in the surgical trial, as shared.

Preferences for Shared Decision-Making

Preferences for the degree of shared decision-making varied across subject age and gender. Some of our oldest participants were the most adamant about dictating their care. Nonetheless, patient preferences for making joint decisions fell along a spectrum, with some patients expressing little interest in deciding on a treatment and others wanting full control.

There was consensus that the surgeons had presented adequate teaching materials before a decision was made. All our WRIST subjects received substantial information about available treatments as part of their recruitment. Thus, the amount of information they received may have been considerably more than a similar patient who was not being approached for a surgical trial. However, because not all subjects in our sample were participants in WRIST, many received a smaller amount of information. Some respondents did note that answers to the questions they were most interested in were not available. “I don’t think [the surgeons] could have answered the questions I could have asked. Like, ‘If we do surgery, I’ll have 100%; if we do closed reduction I’ll have X%?’ You know, those are the questions that I would want answers to”, explained a 71-year-old female. Despite many participants describing themselves as research-orientated, only a few (N=3) indicated they performed outside research on treatment options or DRFs in general. The information-seeking behavior described was limited to internet searches and consulting others who experienced a similar injury. These participants also explained that their professions (2 librarians and a researcher) drove them to pursue outside information.

A common theme among participants was taking comfort in the surgeon’s superior reputation (Table 7a). When asked about the value they placed on the recommendation of the hand surgeon, 17 subjects explicitly stated that they valued it highly, expressing some variation on the sentiment, “The surgeon knows more than I do.” Nonetheless, a few participants did express that they did not trust the specialist exclusively (Table 7b). Specialists’ opinions were widely accepted regarding the technical features of the treatment options. However, almost all patients indicated that receiving the treatment that provided them with the best outcomes and function was most important.

Other Influential Healthcare Providers

A final, but recurrent, point of influence for patients was the recommendations from a healthcare-affiliated friend or family member. When asked about the influence of others in the decision-making or information-seeking, multiple patients explained how they asked the advice of a friend or family member who worked in healthcare (Table 8). These individuals were not necessarily in the plastic or orthopedic field. For example, one patient stated that her brother, a psychiatrist, advised her to request VLPS. Nevertheless, interviewees seemed to rationalize their advice-seeking behaviors through their friend or family member’s association to the medical field.

Discussion

Efforts to promote patient-centered care have underscored the importance of shared decision-making to close the gap between patient preferences and physician expertise.⁴ It has become increasingly necessary for physicians and the healthcare system to develop a mutual appreciation for a patient’s preferences and values when providing care. Although a shared decision-making approach may be routine in modern health settings, particularly among younger physicians,¹⁹ quantitative findings to support these tactics are limited by presenting the perspective of the “average” patient, as opposed to exploring the viewpoints of different patients. In this study, we found that the majority of participants described their

decision for treatment as having been one-sided, either being made by the physician or patient. In most cases, subjects indicated they preferred parts of their decision be shared between themselves and the surgeon. Patients' previous experiences and expectations of their surgeon were influential to one's preferred role for their surgeon.

Previous research on the decision-making preferences among older adults is conflicting. Many have suggested that older generations likely have more passive preferences owing to their familiarity with the paternalistic model of care or lower average education levels.^{6-8,20,21} Others found these discrepancies between cohorts are non-existent or diminishing with the aging population.^{5,22} One study found that older adult patients seeking treatment for a DRF, indicated strong preferences for collaborative decisions between themselves and their provider when asked to sort their preferred role using the Controlled Preferences Scale.^{5,23} Through our use of qualitative methodology, we provide insight on patients' desired roles for themselves and providers when making treatment decision. Despite some participants not showing strong preferences for a particular DRF treatment option, most subjects wanted a role in dictating specific features, like the type of anesthesia used or whether they underwent post-operative therapy with a therapist. These patients indicated the need for individualized care. Although patients did not necessarily share the decision for a treatment with their physician, many perceived that by providing their input on other factors, they still partook in shared decision-making. Nonetheless, we noticed a trend indicating that patients who have sustained conditions that they perceive to have been more severe than their DRF were less likely to want an active role. When appropriate, patients should be consulted about their desired role for the surgeon in regard to medical decision-making before treatment decisions are established to ensure an appropriate care plan is created.

Charles et al. outlined four key characteristics of shared decision-making: (1) involvement of at least two participants, (2) information is exchanged, (3) consensus is gauged, and (4) an agreement is reached.²² All four aspects must be met for a decision to be considered "shared". Surgeons can initiate individualized shared decision-making by first assessing a patient's desired role for the physician when making medical decisions. For example, they could ask the patient directly what type of factors are most important to them and the type of role they prefer, periodically throughout the treatment process. Some suggest that requiring documentation of patient preferences will drive decisions that are made by patients, rather than providers.²⁴ This is particularly important for older adults, because, as seen in our study, their preferences for patient involvement fall along a wide spectrum. Though the typical older patient may prefer a shared-approach, our findings highlight that an individual's perception of injury and prior experiences can dictate their preferences away from "typical".

A previous qualitative study found that patients have a strong desire for information, but do not always partake in active information-seeking behaviors.²⁵ We observed a similar finding in our study. Many participants described leaving the final decision in the hands of the specialist because of their own lack of knowledge and experience with such injuries. It is possible some may have intended to perform outside research on their own and either forgot or did not have time; however, our findings indicate that many valued the recommendation of the hand surgeon, given his or her reputation, over other sources.

One added benefit of qualitative research is that it may unveil key themes and narratives from participants that may not have been previously recognized as important by investigators.¹⁷ An unexpected theme that arose from our investigation was the impact of the advice from a family member or friend in the medical field. Although the benefits and dangers of information-seeking behaviors practiced by older patients using the internet are well-documented,^{26,27} little is known regarding the validity of information patients may seek from a health-affiliated family member or friend. As seen in our study, individuals seek advice from others in the healthcare field, notwithstanding the outside source's medical specialty. Providers must be mindful of the impact of outside health professionals, who are trusted by the patient but may not have expertise in a relevant field.

Our study does have limitations. Given our unique subject population, the findings of this study are not necessarily generalizable. Our sample size of 30 participants is typical for qualitative studies.²⁸ Because saturation was reached with the 27th interview, we conclude that a larger sample size would not have contributed new themes. Considering the retrospective nature of our study, there was potential for recall bias among our subjects. We targeted patients who were at different stages of the follow-up period (ranging from less than 4 months since the date of injury upwards to five years after injury), because we were interested in gathering perspectives from subjects at different points in the treatment/recovery process. Specific details about the injury, treatment, and recovery were checked against medical records when necessary. There was also a possibility of selection bias within our sample. One may have been more likely to agree to participate in our study because he or she felt strongly, whether positively or negatively, about the care received. Those who felt neutral may have had less interest in participating. Any project relying upon volunteer participants risks this bias. To minimize the effects of bias, we maintained validity by using a rigorous study design and methodology.¹² We conducted a formal member checking session after the last three interviews to confirm that our interpretations were accurate and transferable. Our study meticulously reported all protocols and results according to the Consolidated Criteria for Reporting Qualitative Research guidelines.²⁹ Finally, because qualitative research is fueled through interpretations, there may have been some inconsistencies between coders. To compensate, the majority (N=21) of the interviews were double-coded. By the 21st interview, there were only minor discrepancies between the two primary coders. The codes assigned for the final 10 interviews were most probably consistent with earlier coded interviews, despite having been coded by only one researcher.

This study provides insight on the desired role of an older adult patient when choosing a treatment for a DRF. We clarified specific aspects of shared decision-making that this group of patients felt necessary and determined which aspects are not as important from the patient perspective. As the pressure for medical care to take a more patient-centered approach continues to evolve, the need for qualitative research to uncover subjective details of the patient experience grows. Moreover, given that older patients now comprise the largest group of medical consumers,³⁰ and their burden on the health system is projected to markedly increase, the need for research on the older population is evident. Hand surgeons must be cognizant of the decision-making preferences of the older adult patient; despite conflicting evidence, many prefer some degree of a shared decision. Yet, this does not hold true for every patient. Furthermore, the meaning of a shared approach can differ between the

patient and the provider. A patient-centered approach to care can be fostered and maintained with information sharing and agreement upon the patient's desired role of the provider from the start. Despite efforts of surgeons, patients will continue to seek counsel from trusted outside sources when making medical decisions. Further collaboration between providers may be warranted as this group of patients continues to evolve.

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Appendix 1. Semi-Structured Interview Questions

Group 1: patients who declined WRIST/ineligible patients

Background

I want to talk with you about your experiences involving your wrist fracture. Let's start with some general background on the fracture.

1. Please tell me about when you fractured your wrist.
 - a. What were you doing when the injury happened?
2. If you can remember, what went through your mind when you first experienced the fracture?
 - a. What type of injury did you think you had? (Did you know that you had fractured your wrist?)
3. Please explain any other type of fractures you've had before this one.
4. What did you know about distal radius (wrist) fractures before your injury?
 - a. Where did you learn this information?

5. What type of research, if any, did you do on DRFs or DRF treatment before your appt with hand surgery?
 - a. What resources did you use to seek information about treatment or recovery?

Decision Making Process

1. Please describe your initial medical encounter?
 - a. (If ED) What about your initial encounter with hand surgery?

Next, I'd like to ask you some questions about when you first came to the hand surgery clinic and saw Dr. [X].

1. Who came with you to your appointment?
2. Did you already have a specific treatment method in mind?
 - a. If yes, which one(s)?
3. What do you remember [Dr. X] telling you about the available treatment methods?
 - a. What information did you find helpful?
4. What was important to you when considering treatment options?
5. Tell me about who else was involved in your decision making process.
 - a. Did you talk about your treatment choice/choices with [companion]?
 - b. Did you talk to anyone else before or during your appt?
6. How did you value the recommendations of your healthcare providers when deciding on a treatment?
7. Which treatment method did you ultimately choose?
 - a. What lead you to [OR] deterred you from surgery?
8. Please describe the difficulty of your decision.
9. What did you hope to gain from your treatment/surgery?
10. How much input did you personally have when deciding on a treatment plan?
11. How satisfied are you with the amount of personal input you had?
 - a. [If not satisfied] What role would you have preferred?
12. What do you remember about the WRIST trial?
 - a. How do you feel about being involved in research studies in general?

Treatment Outcomes

Now I'm going to ask you about the results of your treatment.

1. Please describe the outcomes of your treatment.

2. What types of things were you expecting during your treatment process?
 - a. How did the actual outcomes match with the expected outcomes?
3. What effect, if any, has your fracture had on your daily living? Was this expected?
4. Please describe your experiences with therapy.

Wrap-Up

1. Overall, how satisfied were you with the [cast/pinning/plate/external fixator]?
 - a. How do you feel about the general care you received?
2. Knowing everything you do now, what advice would you give yourself/someone else immediately after fracturing your wrist?
3. If you could go back in time, would you pick the same treatment? Please explain.
4. Anything else that you would like to add?

Thank you for your time!

Group 2: patients who agreed to participate in WRIST

Background

I want to talk with you about your experiences involving your wrist fracture. Let's start with some general background on the fracture.

1. Please tell me about when you fractured your wrist.
 - a. What were you doing when the injury happened?
2. If you can remember, what went through your mind when you first experienced the fracture?
 - a. What type of injury did you think you had? (Did you know that you had fractured your wrist?)
3. Please explain any other type of fractures you've had before this one.
 - a. Any other hand health issues?
4. What did you know about distal radius (wrist) fractures before your injury?
 - a. Where did you learn this information?
5. What type of research, if any, did you do on DRFs or DRF treatment before your appt with hand surgery?
 - a. What resources did you use to seek information about treatment or recovery?

Decision Making Process

1. Please describe your initial medical encounter?

- a. (If ED) What about your initial encounter with hand surgery?

Next, I'd like to ask you some questions about when you first came to the hand surgery clinic and saw Dr. [X].

1. Who came with you to your appointment?
2. What do you remember [Dr. X] telling you about the available treatment methods?
 - a. What information did you find helpful?
3. Tell me about your experiences in the WRIST study.
 - a. What made you decide to participate?
 - i. How do you feel about being involved in research studies in general?
 - b. What was most memorable about your encounters with Dr. X?
4. How did you value the recommendations of your healthcare providers while receiving treatment?
5. What was most important to you during the treatment process?
6. What are your general opinions on surgery?
7. What did you hope to gain from your treatment/surgery?
8. If you had not been in the study, what type of role would you have wanted when deciding on a treatment method?
 - a. How satisfied were you with the role you had as a participant in the study?
9. What do you wish, if anything, would have been different about the trial or your decision to participate?
10. In general, how do you value the opinions of your health care providers?

Treatment Outcomes

Now I'm going to ask you about the results of your treatment.

5. Please describe the outcomes of your treatment.
6. What types of things were you expecting during your treatment process?
 - a. How did the actual outcomes match with the expected outcomes?
7. What effect, if any, has your fracture had on your daily living? Was this expected?
8. Please describe your experiences with therapy.

Wrap-Up

1. Overall, how satisfied are you satisfied with the treatment type you received?

- a. How do you feel about the general care you received?
- 2. Knowing everything you do now, what advice would you give yourself/someone else immediately after fracturing your wrist?
- 3. If you could go back in time, would you want the same treatment? Please explain.
- 4. Anything else that you would like to add?

Thank you for your time!

Appendix 2. Code chart

| CODE | SUBCODE 1 | SUBCODE 2 | SUBCODE 3 |
|--------------------------------------|---------------------------------|------------------|-----------|
| Getting to know you | Comorbidities | | |
| | Previous hand health | | |
| Fracture | Mechanism | Locus of Control | Internal |
| | | | External |
| | Initial thoughts | Knowledge | |
| Previous/Subsequent fractures | Previous | | |
| | Subsequent | | |
| Initial Medical Encounters | Transportation to hospital | | |
| | ED | Satisfaction | |
| | | Experience | |
| | Hand | ED Consult | |
| | | Clinic | |
| Emotional state | | | |
| Treatment options | Surgery (general) | Pro | |
| | | Con | |
| | Cast | Pro | |
| | | Con | |
| | VLPS | Pro | |
| | | Con | |
| | External Fixation | Pro | |
| | | Con | |
| Pining | Pro | | |
| | Con | | |
| Understanding Treatment Options | | | |
| WRIST | Recall | Yes | |
| | | No | |
| | Opinion | Positive | |
| | | Negative | |
| | Thoughts on research in general | | |

| CODE | SUBCODE 1 | SUBCODE 2 | SUBCODE 3 |
|-----------------------------|---------------------------------|-------------------------|-----------|
| | Influence | | |
| Decision Making | Resources/info-seeking behavior | Internet | |
| | Previous experience | Own | |
| | | Others | |
| | Influence of others | Family | |
| | | Others | |
| | Desired role | Surgeon | |
| | | Patient | |
| | | Surgeon + Patient | |
| | Actual role | Surgeon | |
| | | Patient | |
| | | Surgeon + Patient | |
| | Difficulty of decision | | |
| | Values | Pain | |
| | | Fear | |
| | | Aesthetics | |
| Handedness | | | |
| Age | | | |
| Autonomy | | | |
| Time | | | |
| Perception of injury | | | |
| Recovery | | | |
| Emotional/Mental State | | | |
| Provider Perceptions | ED | | |
| | Surgeon | Value of recommendation | |
| | | Trust | |
| | | Likability | |
| | Clinic staff | | |
| Hand therapist | Perceptions of rehab | | |
| Expectations | Functional | | |
| | Pain | | |
| | Recovery | | |
| Experience | Treatment | | |
| | Care | | |
| | Pain | Meds | |
| | Anesthesia | | |
| Outcomes | Changes to behavior | Carefulness | |
| | Complications | | |
| | Functional | | |

| CODE | SUBCODE 1 | SUBCODE 2 | SUBCODE 3 |
|-------------------|--------------|-----------|-----------|
| | Limitations | | |
| | Pain | | |
| | Satisfaction | | |
| | Fear | | |
| | Aesthetics | | |
| Reflection | Medical | | |
| | Personal | | |
| | Advice | | |

Clinical Relevance

To provide high quality care, surgeons should evaluate the desired role of the patient to make treatment decisions at the start of their interaction. Surgeons must be aware of outside medical influences that guide their patients' decision-making processes.

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Table 1

Summary of Participant Characteristics

| Characteristic | | |
|-----------------------------------|------|-------|
| Total Number of Participants | 30 | |
| | Mean | Range |
| Age | 73 | 62–93 |
| | N | % |
| Sex | | |
| Female | 27 | 90 |
| Male | 3 | 10 |
| Total Number of Wrist Fractures * | | |
| 1 | 21 | 70 |
| 2 | 6 | 20 |
| 3 | 3 | 10 |
| Most Recent Treatment Received | | |
| Cast | 6 | 20 |
| External Fixator | 3 | 10 |
| Pinning | 6 | 20 |
| VLPS | 15 | 50 |
| Time Since Most Recent Fracture | | |
| < 6 months | 4 | 13 |
| 6 – 12 months | 5 | 17 |
| 13 – 24 months | 6 | 20 |
| > 24 months | 15 | 50 |
| WRIST Status | | |
| Screened but ineligible | 3 | 10 |
| Eligible but refused | 12 | 40 |
| Enrolled | 15 | 50 |

* Excludes fractures sustained during childhood (<18 years old)

VLPS: volar locking plating system; WRIST: Wrist and Radius Injury Surgical Trial

Table 2

Representative Quotations on the Actual and Desired Role of the Hand Surgeon when Choosing a Treatment Option

| Actual Role | Desired Role | Patient (Most Recent Treatment) |
|--|--|---------------------------------|
| <p>“You know, it is my nature to research things, but I didn’t have the opportunity. I mean, I was there in the moment, and I was asked just to make a decision there. Relative to, I think there were three or four kinds of surgeries, or ways they could repair?”</p> | <p>That’s part of the struggle for me. It’s kind of like... you’re the medical professionals. Here I am, a sixty-some year-old woman, you know. [The surgeon] had better able to choose or decide which is the best [treatment] for me.”</p> | <p>65-y.o. female (VLPS)</p> |
| <p>“I didn’t have an input into [choosing a treatment] at all. The orthopedic resident did. She had a supervising doctor, [...] but he left it in her hands because she does tons of orthopedics, and I don’t know if it maybe was just crystal clear to them that they should at least give it their best shot to do a closed reduction.”</p> | <p>“It was a touchy, not a touchy conversation, but a careful conversation. I didn’t want to say to the doctor, ‘I know better than you’ because I clearly don’t but I also didn’t want to say, ‘Don’t write me off as a 70+ year old woman who doesn’t need to do anything anymore. I feel like I’ve got a lot to do’.”</p> | <p>71-y.o. female (Casting)</p> |
| <p>“The doctor said it was perfectly set, but he didn’t think it would need surgery.”</p> | <p>“I guess I was a little disappointed. I thought surgery fixes everything and if there really is a little floating piece then what does that even mean? Is that problematic later? I just wanted it all to be taken care of right then and not have to have problems later.”</p> | <p>74-y.o. female (Casting)</p> |

VLPS, volar locking plating system; y.o., year old

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Table 3

Patient Quotations on a Paternalistic Approach

| Quotation | Patient (Most Recent Treatment) |
|---|---------------------------------|
| A. | |
| "I mean I didn't know enough about [treatments for DRF] and I just felt like I was really in good hands and I wasn't going to second guess the specialist." | 67-y.o. female (VLPS) |
| "I was told that it had to be I had to have surgery... [My husband and I] just followed what we thought had to be done. It was great." | 77-y.o. female (VLPS) |
| B. | |
| "You know I didn't feel I needed to be part of anything. This was pretty straight, you know, it's a broken bone you need somebody to fix your broken bone. And I didn't feel I needed to, it's different than the cancer." | 67-y.o. female (VLPS) |
| "I like to be very well informed. And if it's not a hugely drastic decision I will accept it, like I wouldn't say to a doctor, 'Well I don't think I'll have a stent put in my artery', but I do like being told what the options are." | 66-y.o. female (VLPS) |

DRF, distal radius fracture; VLPS, volar locking plating system; y.o., year old

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Table 4

Patient Quotations on a Patient Directed Approach

| Quotation | Patient (Most Recent Treatment) |
|---|---------------------------------|
| A. | |
| “They just told me all about it and let me make up my own mind... I would not have preferred that [the surgeon] had given me a recommendation because I wouldn’t listen.” | 85-y.o. female (VLPS) |
| “[The hand surgeon] said I would have [surgery] and it wouldn’t be on quite straight, but they could fix it with plates and screws. And I said ‘Forget the plates and screws I’ll go with a crooked hand’... usually I take [the surgeon’s] recommendations because I figure they’re smarter than I am. But sometimes I don’t agree and then I voice my opinion.” | 88-y.o. female (Casting) |
| B. | |
| “Yeah, I was just like, I’m just like babbling, and crying, and just like not articulating very well at all. And being asked to make a decision as to what kind of treatment, you know, I had trouble with that... [The surgeons] weren’t going to help me. | 65-y.o. female (VLPS) |

VLPS, volar locking plating system; y.o., year old

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Table 5

Patient Quotations on a Random Decision

| Quotation | Patient (Most Recent Treatment) |
|--|---------------------------------------|
| “[The surgeon] gave me the choice of not doing anything, having pins and plates put in my arm, or put on the outside of my arm. So I said, ‘Yeah, why don’t you make that decision, I can’t do it.’ And he said, ‘Well, we’ll let the computer pick’, so he did and it picked the outside of the arm.” | 72-y.o. female (External Fixator) |
| “I think there was 4 different choices, or I could opt to have the computer choose which was right for me. I had the computer choose because I had no idea what everything was.” | 79-y.o. female (Percutaneous Pinning) |

y.o., year old

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Table 6

Patient Quotations on a Shared Decision Making Approach

| Quotation | Patient (Most Recent Treatment) |
|---|---------------------------------|
| A. | |
| "I was open to let the people with the knowledge make the biggest part of the decisions and I would just agree." | 66-y.o. female (VLPS) |
| Patient: "They offered me the choice of getting it operated or just letting it heal by itself. But listening to her, I decided to go with the operation. Spouse: "I think [the hand surgeon] was very fair. [The hand surgeon] provided the facts and kind of kept her own opinion hidden unless she was asked." | 67-y.o. female (VLPS) |
| B. | |
| "I like to lead [medical decisions] because I consider myself more active than the average person and I like to maintain that level of activity. In other words, if I have pain I am going to complain about it if it stops me from climbing or dancing or whatever. I am not going to accept an answer of, 'You're getting old, expect it'. Somewhat self-directed in that I communicate how active I want to be." | 62-y.o. female (VLPS) |
| "I like to have a pro-active role because I'm intelligent. I have the capability to understand stuff, I've had a pretty good education." | 64-y.o. female (VLPS) |

VLPS, volar locking plating system; y.o., year old

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Table 7

Patient Quotations on Trusting the Hand Surgeon

| Quotation | Patient (Most Recent Treatment) |
|--|---------------------------------|
| A. | |
| "I mean I did research about [the surgeon] before I went to my first appointment and I realized what a great surgeon he was. I felt really lucky to be there and then for him to explain, 'This is what we're going to do and this is why we're doing it'." | 63-y.o. female (VLPS) |
| "You know [the surgeon] was the expert and I totally trusted in the system and in the doctor and I just didn't feel the need to explore it any further." | 67-y.o. female (VLPS) |
| B. | |
| "I look to other people and not just my one health care provider because I think after a while you get to know too many situations and can ask, 'How did that go wrong?'" | 73-y.o. female (VLPS) |
| "I value [the recommendation of the surgeon] greatly, but with a great deal of skepticism. I have a feeling that much of the medical system is based on quick answers... they focus on this particular symptom or whatever without thinking of the whole person. I think that's an error in diagnosing or treating." | 93-y.o. female (Casting) |

VLPS, volar locking plating system; y.o., year old

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Table 8

Patient Quotation on the Influence of Healthcare Affiliated Family Members or Friends on Decision Making

| Quotation | Patient (Most Recent Treatment) |
|--|---------------------------------|
| “Well, my daughter was an occupational therapist... so she guided me. It was nothing that I did. She was the one that dictated how and what and how to go about it. She was on staff at [this hospital] so she was very helpful.” | 67-y.o. female (VLPS) |
| “My brother is a doctor and he said get the plate, get the plate and don’t mess around. He is a psychiatrist, but he is a doctor more than the psychiatrist. I was talking to him and it only took me a little while to realize I had to get back to work, so uh I didn’t have an option.” | 65-y.o. female (VLPS) |
| “My old neighbor was a radiologist so I could ask him which one of these he thought I should go with because he has an informed opinion. I feel pretty comfortable with him, asking him questions because he has always been honest with me.” | 73-y.o. female (VLPS) |

VLPS, volar locking plating system; y.o., year old

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