

Hospital bed alternatives at home among individuals with spinal cord injury – Dr Jeanne Zanca
Fast Takes – Ep. 27

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- JOAN BANKS-SMITH: 00:08 Welcome to another special episode of Fast Takes. I'm Joan Banks-Smith, series producer and creative producer at Kessler Foundation. In this episode, our very own Dr. Jeanne Zanca and co-author for the peer reviewed article, The experience of using a hospital bed alternative at home among the individuals with spinal cord injury. She interviews Kessler Institute for Rehabilitation occupational therapists and co-authors Rachel Levinson and Lorena Salas. Dr. Zanca starts off the interview talking about the project's beginnings and Miss Levinson responds.
- JEANNE ZANCA: 00:43 Lorena and Rachel, how did the idea for this project arise?
- LEVINSON: 00:47 Traditionally, as occupational therapists, we recommend durable medical equipment for our patients. And one of those things we recommend is usually a hospital bed. And in kind of my whole career as an OT, patients always say, I don't want to use this. This is too small. I don't like the way this looks. What other options are there? I mean, we didn't really have any great options to give people as an alternative. We know just from speaking to former patients that some people use sleep number beds or standard beds, but there is not so much research out there as to whether it's appropriate to recommend this or not. So Lorena actually had a patient who went to the Abilities Expo and saw the bed that we use in our study, the Assured Comfort bed. And he wanted to purchase it. And that kind of brought to light this idea of, hey, this bed actually might be really good for us to use and to recommend for patients. And the bed in particular that we did study had all of the features that hospital beds had. So it had the head of bed features, it had bed rails, but it came in all different sizes and it was aesthetically pleasing. So we decided to go down the road of trying to see if this would really be something good to recommend.
- ZANCA: 01:53 Thanks so much, Rachel. Can you briefly explain how you conducted your research for our listening audience?
- SALAS: 01:59 At the time when my patient purchased this bed, obviously, all the patients are constantly talking to each other, especially the younger guys. They kind of meet after therapy and stuff. So after he purchased this bed, a few other patients also purchased the bed. So we had four patients that we knew had purchased the bed after leaving here. So after that happened, we basically contacted-- well, we were constantly seeing each other here in the gym and stuff. So we spoke directly to the occupational therapist that was working with those specific patients when they were here at Kessler. And we had them reach out to them and ask for consent to participate in the study. And then once we got that, then we contacted them. We did in-home interviews. So we went to each of their homes. We conducted kind of an informal interview. And then we actually pressure mapped them using a pressure mapping system on a laptop with kind of this big a sensor mat that we put on the bed that they purchased, the Assured Comfort bed, and then we pressure mapped them on there.

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And then we came back here at Kessler and had them come back a few weeks later to do the pressure mapping on the bed that we typically recommend. So we typically recommend the standard hospital bed with a gel overlay for individuals who don't have pressure injuries, which none of these individuals had pressure injuries. And even though they were all mapped while they were here at Kessler, we kind of wanted it to be very close in time to the mapping that we did in their homes, because people gain weight, lose weight, they might have changes here and there. So we did it pretty close together. It was like two weeks apart from each other. And yeah, that's pretty much how we collected the data.

ZANCA: 03:46

Very good. Participants in the study generally reported having positive experiences with the beds they were using. What do you believe attributed to those positive outcomes?

LEVINSON: 03:57

So we think the biggest thing was kind of the sense of normalcy that all of our participants felt, which was a really big theme that came out. So the things that the participants really liked about the bed was the aesthetics of the bed, so they could kind of customize what they wanted the headboard to look like, the footboard, if they wanted it at all, the size. So our participants really liked that they could choose the size. Most ended up going with a queen. We had one with a split king. So they felt very comfortable on it, especially in comparison to the hospital bed they were using while they were here at Kessler. And just in general, it was that sense of normalcy and being able to get home and not have this kind of hospital equipment in their home.

SALAS: 04:38

And some of our participants also had kids. And we even found it interesting that one of them said that their daughter was even afraid to sleep with him in the hospital bed because of just the aesthetics of what it looked like. So we just thought it was interesting that all these little things that came up kind of somehow led to the sense of feeling some sort of normalcy of what they felt prior to having this life changing injury. And even though we think it's just a tiny thing, it's just their bed, it really made a difference in their overall quality of life. And pretty much all of them said that they would recommend it for any individual similar to them with a spinal cord injury.

ZANCA: 05:18

Were any of the findings in the study surprising to you?

SALAS: 05:21

I would say that the biggest surprise was that a lot of them mapped actually slightly better when looking at the average pressures, just the overall pressure on the adjustable bed system, the Assured Comfort bed compared to the standard hospital bed with the gel overlay. It was hard. We couldn't really find statistical differences just because there isn't data on true differences in those average pressures. However, when just looking at the data, most of the mappings looked a little bit better on the Assured Comfort bed. So that was shocking. Another thing that was really shocking was that we were predicting that the type of bed was going to have a bigger effect on physical intimacy. Pretty much all but one had a partner that they lived with or that they sometimes shared the bed with. And we found that it had a much greater effect on intimacy from a psychological level versus from an actual physical level. So there were a lot more psychological effects and just, I guess, improvement in quality of life,

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more pertaining to psychologically how they were feeling towards having a hospital bed versus the actual physical intimacy.

ZANCA: 06:37

That is really interesting, Lorena, thank you. Given that and all the other things you've described, what do you see as the main takeaways from this study?

LEVINSON: 06:45

So I think the big takeaway for us was that it is really, really important to consider alternatives, whether it be an alternative bed or any other alternative kind of DME for patients in the home. And how big of a role DME being placed in the home affects the patient. And that transition back into home and the sense of feeling normal, that something like Lorena said, as simple as changing the bed really helps kind of restore that normalcy in the home. And for us, we feel more comfortable now making recommendations to use an alternative bed, knowing that our patients pressure maps good on it. And they've been in the community now on these beds for over a year at this point with no changes in their skin. So knowing that it is actually safe to recommend an alternative bed if all of kind of the pieces are in place. So what we looked at in our study was really making sure that the patient either had the mobility to move themselves or they had a supportive caregiver who could roll them at night and that they didn't have any skin issues before recommending this bed. So even at this point, if somebody didn't have that support or they weren't independent or they had a history of a lot of wounds, we still wouldn't feel comfortable making that recommendation. But for individuals who have kind of all of the pieces in place, we both feel very comfortable making that recommendation now. So just really encouraging clinicians to think outside of the box and explore other things that are out in the world to use.

SALAS: 08:22

Yeah, because we automatically assume, especially newer therapists, that what insurance covers is always going to be the best piece of equipment and not necessarily. There are other aspects that can affect overall quality of life, not just the oh, because they pressure map with the vest on it. Well, if they're doing other things and not just even with a mattress, but even we get people all the time that bring us specialty commode chairs or shower chairs and say, hey, what do you think about this? And sometimes it's very much not appropriate and we can determine that very quickly. But I think it's important for therapists to also, like Rachel said, think outside of the box and consider other factors that may be very beneficial that can exist with equipment that we necessarily don't carry here.

LEVINSON: 09:17

And I think when we kind of first went into this study, we weren't sure how people were going to pressure map. So we were kind of thinking does quality of life even outweigh pressure mapping? And it turned out really that the pressure mappings turned out well also. But we were almost anticipating that the pressure mappings wouldn't be great, but we would be able to kind of say that quality of life is almost more important than just this little pressure mapping data. So, again, just really considering that in terms of all aspects of life and not being so stuck in the textbook, oh, you can't get up the stairs. There's no way to get up the stairs. We don't recommend you go to the second floor of your house. Is there a way? Can they bump up on their butt even if it's not the perfect ideal recommendation? How can you get

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them to continue to function and feel like they're restoring back to their previous life roles?

ZANCA: 10:07

Absolutely. Why do you think it's important to conduct research that looks at the care of an individual after being discharged from the hospital?

SALAS: 10:16

Basically, when patients are here, they're here for such a short period of time compared to how long people were here years ago. So lengths of stays are so short. And the reality is, when patients are here, it's like we always describe it as being in a bubble. They are interacting on a daily basis with people who have similar injuries to them, with staff that are familiar, very familiar with their specific type of diagnosis. So I think-- I've gotten that feedback many times before from patients who come and visit us or contact us that, once you get out of these walls of Kessler, it's a whole different world. And you really get a hit of the real world. And I think that it's really important to be able to research what happens after patients leave here, because I think it helps us as clinicians really problem solve or at least to buffer or just-- sometimes we can't entirely eliminate, but at least to reduce the amount of issues that people have after here, if we can kind of know what's going on after here. So I think it just helps all of us create a better bridge between inpatient therapy and the next steps after here.

ZANCA: 11:38

How do you hope clinicians will use these findings as they prepare their patients for discharge from the hospital?

LEVINSON: 11:44

So we really hope that clinicians will really consider alternatives and really look at the whole picture and the whole patient and their family as one whole thing and not look at it in such a pigeonhole view, like Lorena said, as just in this perfect little bubble and really find out how that piece of equipment you're going to recommend is going to benefit them. Is it going to work for them? Is it appropriate? And know that with at least the findings we have in this case study that we did find that this alternative bed is a safe option and there really are alternatives out there that you can use and still meet the patient's needs. So hopefully people will continue to make more recommendations for alternative beds.

SALAS: 12:24

We'll say that since the study, I've become much better at educating families about what other options are, even though it might not even be appropriate at this point in time. We have a lot of patients, their mobility is still very, very impaired. They might have pressure injuries that they still maybe would definitely benefit from having a specialty mattress, at least for the next couple of months until their pressure injuries heal. But I find that I much more often now will provide a printout and say, this is an option. And there are other options out there that you can put kind of in your file of things to look at later on, but just know that this exists and that later down the line, it's a good idea to touch base with your physician or with your therapist at the time to see if at that point in time it might be a more appropriate option, because I think that since a lot of therapists and-- sometimes we don't even know where patients are going to go after they leave here, whether it's a subacute or somewhere else, I think it's important for them to at least know what is out there and what is an option, because sometimes they don't even realize that it is an option.

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- ZANCA: 13:28 What new questions did this research raise for you?
- SALAS: 13:31 One of the questions were what people's experiences are with other types of beds. So obviously we looked at one specific type of bed, but there are so many beds out there that are commercially available. The Sleep Number, some people even go to a regular standard bed. So just kind of thinking about what other people's experiences might be with these types of beds. Are they similar to ours, to the experience the patients had with our study, or do those beds have maybe not as many features that maybe their experience isn't as good? I don't know, just kind of thinking about what other people's experiences are and how many people actually do continue to sleep in a hospital bed for their entirety of their life after they leave here, versus how many people actually do transition to beds that may or may not be appropriate. And then what are other types of equipment aside from a bed that people transition out of that are maybe not typical pieces of equipment that we may recommend here in inpatient therapy, I think is a good thing to potentially explore as well.
- LEVINSON: 14:40 I think the big one really is we recommend these really expensive roll-in shower commode chairs and how many people really continue to use them? Are they really beneficial? What off the market things are people buying that are maybe a little bit cheaper? Are those working for them? Are those not working for them?
- SALAS: 14:59 And we both are actually part of this Facebook group that's a national Facebook group for individuals with spinal cord injury, and this question actually just came up, just I think it was Saturday that someone said, hey, does anyone have any recommendations for a bed that isn't a hospital bed? We see that question all the time pop up there and aside from other durable medical equipment as well. So we definitely know that it's something that people are wondering about. But we wonder how many people actually do transition to a different.
- ZANCA: 15:31 That is really interesting and so exciting that you have now the chance to point to something published that addresses those questions that so many people have. My understanding is that this is your first published peer reviewed research paper. How does it feel to be published?
- LEVINSON: 15:46 It feels really great and we're both very happy that we're finished. It was a lot of work. We're so happy that we had you actually to help us through the whole way. We definitely would not have been able to do it on our own. And we're both very proud of ourselves that we were able to accomplish it. And we're happy with the findings and find that it is really, really useful information. So we are happy that we're hopefully going to continue to educate more people from our research. But it was a lot, a lot of work.
- SALAS: 16:19 And people seem to be very interested in the topic, too. We presented at ASCIP and there were so many questions that came about after it, then somebody asked us to present at another conference based on that presentation. So it's pretty cool to see that there are a lot of other people across the country, clinicians specifically, and nurses that are very interested in the topics. So it's cool that we were able to contribute to that research.

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- ZANCA: 16:44 What was the experience of writing this paper like for you?
- SALAS: 16:47 It was a lot of work. It was definitely longer than anticipated. We had a timeline, since we're both full time treating clinicians. So we had to find a lot of time after work hours to kind of put ideas together, to write pieces of the paper. So it definitely was longer than anticipated. And I think that having a co-investigator is definitely, at least for me, very helpful, because I think sometimes you write and write and write and you don't even know what you're reading anymore after reviewing it. So I think it's nice to have a co-investigator so that you can bounce ideas off of and go back and forth between editing and-- yeah, it's very helpful to have that, as well as a mentor, obviously, to walk you through the process, because it is a very long process that has a lot of little parts to it that you would never even think of. So a mentor that has experience conducting research as well as writing a manuscript is definitely very helpful.
- LEVINSON: 17:50 Yeah, I think there was a lot of really-- things that we thought we knew exactly how to do it. And having someone who knows that doesn't really make sense or you should kind of word it this way and kind of steer you in the right direction is things we would have never been able to get to or be able to do if we hadn't had someone who kind of has that experience in research. And then even when in writing the manuscript, even knowing where to begin, that's not like we thought there'd be a-- okay, here's step one, two, three and four. And it's not even put together so clearly as how to submit it and where to submit it and what to do. And it was a lot of back and forth.
- SALAS: 18:25 But it's possible.
- LEVINSON: 18:26 Yes, it's possible.
- ZANCA: 18:28 It was an honor to work with you both on this paper. And I'm wondering, what advice do you have for other clinicians who are interested in participating in research?
- LEVINSON: 18:37 I think the biggest two things Lorena kind of already touched on is, if you can have a mentor or you can have someone help guide you. We definitely would not have been able to do it without you. Having someone who can help guide you. And then again, a co-investigator. So you then have a teammate also to help you out and bounce ideas off of. Since we did qualitative and quantitative, we needed that for reviewing the transcripts, transcribing. We're clinicians, so we were just doing this ourselves and don't have fancy equipment to do anything with. So it was just to help with the labor to have two of us to be able to do it and making sure you're kind of flexible. Know that it's probably going to take a little bit longer than you expected. Don't say, I want this done in six months. Be open to letting your research kind of change. I think we both probably started this with a very different idea in mind and it shaped itself into what it became and it ended up being something really, really good. So have an idea, but be flexible and be able to mold that into something really that will work and be successful as a research study.
- SALAS: 19:41 And then in times, there were times that we didn't work on it at all because we just couldn't. We were just very busy. But then in times that ideas are flowing and you

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have more time, then kind of capitalizing on that and really trying to get done as much as you can during those times and making up for the times that you are a little bit more busy, I guess.

ZANCA: 20:00

Well, I'm so glad to hear this paper is getting such a positive reception, that there's so much interest in this topic. I wish you continued success. And thank you so much for speaking with us today.

SALAS: 20:08

Thank you for having us.

LEVINSON: 20:08

Thank you.

BANKS-SMITH: 20:12

To learn more about Dr. Zanca or to read the article, links can be found in the program notes. Tuned in to our podcast series lately? Join our listeners in 90 countries who enjoy learning about the work of Kessler Foundation. Follow us on Facebook, Twitter, and Instagram. Listen to us on Apple podcast, Spotify, SoundCloud or wherever you get your podcasts. This podcast was recorded on Monday, August 9th, 2021, remotely, and it was edited and produced by Joan Banks-Smith, creative producer for Kessler Foundation.

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