Research Article

A Perfect Storm: Care Transitions for Vulnerable Older Adults Discharged Home From the Emergency Department Without a Hospital Admission

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Abstract

Purpose of the Study: The purpose of the study was to describe, from the perspectives of emergency department (ED) providers, factors that influence quality and safety of transitions home from the ED for vulnerable older adults.

Design and Methods: A grounded theory approach was used to analyze data from 9 focus groups conducted with ED staff that included representatives from nursing, medicine, pharmacy, social work, and respiratory therapy.

Results: From the perspectives of these care providers, 5 antecedent concepts contribute to the perceived quality and safety of transitions from the ED to home. These 5 concepts include the nature of geriatric presentations, provider knowledge, consumer knowledge, the ED resource base, and health care system fractures. Co-occurrence and interaction among the 5 identified antecedents set up conditions for what one focus group participant described as a perfect storm.

Implications: Older adults discharged home from the ED without a hospital admission are an increasingly important but understudied group within the transitional care literature. Although they share some similarities with those undergoing different health transitions, their unique needs and the specific characteristics of ED care require a novel approach. The model that emerged in this study provides direction for understanding the complex and interrelated aspects of their transitional care needs.

Key Words: Transitions of care, Emergency department discharge to home, Emergency department staff perspectives

Purpose of the Study

Among older adults, care transitions are a time when the risk for medical errors and adverse events is high (Brock et al., 2013). These problems are costly by themselves, but poorly managed transitions generate additional costs in terms of suffering, repeated and unnecessary tests and recidivism (Jencks, Williams, & Coleman, 2009). To address these concerns, the number of studies on transitional care has increased substantially in the past several years with the best studied care transitions being those involving discharge from acute care hospitals to home (Altfeld et al., 2013; Coleman, Parry, Chalmers, & Min, 2006; Hansen, Young, Hinami, Leung, & Williams, 2011; Jack et al., 2009; Naylor et al., 1999, 2004; Takahashi et al., 2013).

Increased attention is also being focused on transitions from the emergency department (ED) for those who are seen and discharged without a hospital admission as demonstrated by 3 systematic reviews on this topic (Hastings
data directly from those providing care to older adults in the ED about their perspectives on the factors that influence ED-to-home care transitions. We designed this qualitative descriptive study to fill that gap in the literature.

Using a grounded theory approach (Glaser, 1978; Glaser & Strauss, 1967), our goal was to generate an explanatory model that could be used in designing future interventions. The research question guiding this investigation was: From the perspectives of ED providers, what factors influence the quality and safety of ED-to-home transitions for vulnerable older adults?

**Design and Sample**

Using a qualitative descriptive design, data were collected through focus group interviews with ED staff. All staff with a minimum of 6 months experience working in the ED were eligible to participate. Nine focus groups were completed. Five focus groups were conducted with nurses, 2 groups with mixed interdisciplinary staff (social worker, pharmacist, respiratory therapist, nursing assistant), and 1 group included physicians only.

**Setting**

We conducted this research in a commonly configured ED in an ethnically and economically diverse catchment area in California. We defined “commonly configured” as an ED with a trauma service, but no geriatric service. The ED is a Level 1 trauma center with approximately 78,000 ED visits per year.

**Recruitment**

The study was advertised through flyers placed in staff meeting rooms. Additionally, the research assistant attended shift “huddles” to advertise the project and answer questions. To enhance scheduling of focus groups, the nurse unit-leaders identified times when workload was low and care coverage could be arranged. Potential participants were invited to select the most conveniently timed focus group. No attempt was made to restrict focus group participation by discipline. However, due to initial challenges recruiting physicians, the physician focus group was coordinated through the ED nurse manager.

**Methods**

Focus groups took place during participants’ work shifts in conference rooms in the ED. Prior to data collection, participants were informed of their rights as human subjects and signed an informed consent approved by the UCLA Institutional Review Board (IRB) and the IRB of the participating hospital. A semistructured open-ended interview guide, designed to elicit both opinions and stories, was used. (see Supplementary Appendix A for questions). All data were tape recorded and tape recordings were transcribed “verbatim.”
Although the term “vulnerable elders” was used in the discussion guide and expressly stated in the first question asked of participants in each focus group, we did not provide a definition of vulnerable elders to the participants. However, at the beginning of each focus group, participants independently discussed the concept and each group came to a clear decision on who should be included in their discussion of vulnerable elders. Participants in all focus groups came to similar consensus. This process led to the following characteristics of vulnerable elders used to frame their discussions. The descriptors for vulnerable elders included, either singly or in combination, those with multiple chronic illnesses that involved debility and/or reduced mobility; those with sensory deficits and communication problems, high levels of anxiety, and/or altered cognition and limited attention; and those with these kinds of problems who presented in the ED unaccompanied.

For trustworthiness, researchers established and maintained relationships with the research site lasting over a year and, through prolonged engagement, were able to gain insight into the context of the phenomenon enhancing credibility (Lincoln & Guba, 1985). Transcripts were checked for accuracy prior to analysis by the individuals who conducted the interviews. Fittingness, the degree to which data “fit” with the analytic product (Emden & Sandelowski, 1998), was maintained by including actual data along with the conceptualizations reported. Fittingness was also maintained by including only “typical experiences” using the “rule of thumb” that conceptualizations were based on data from at least 3 different groups. Dependability was evaluated through inquiry audits (Lincoln & Guba, 1985). At team meetings, researchers discussed the data, codes, and emerging categories and examined the logic and validated the findings for coherence.

Analysis
Data analysis and data collection occurred simultaneously. Data were analyzed using constant comparative analysis to produce categories (groupings of codes with like meaning), properties (descriptors of categories), and themes (representations of patterns in the data). Following Glaser (1978), the first step in the analysis involved the identification of significant statements (“data bits”) in the verbatim transcriptions. Data bits could include words, phrases, sentences, or entire stories. Within and across interviews, data bits were then compared with each other through a sorting process involving “open coding.” As the analysis proceeded, the coding strategy changed from open to substantive coding. Substantive coding occurred when categories became “firm” and definitions for the categories were developed. When no new insights were gained, or saturation was met, the categories were examined for related themes to address questions about “what is going on” in these situations. Based on the narratives, some categories were coded as antecedents to poor quality transitions. Relationships among the antecedents were also identified during the coding. The final analysis step involved reviewing the literature to determine the “fit” of the data into the existing knowledge base. Data sorting was done using multiple windows in Microsoft WORD.

Results
From the perspectives of these care providers, a model was developed based on 5 antecedent concepts perceived by them to influence the quality and safety of ED transitions for vulnerable elders discharged directly home from the ED. The 5 antecedent concepts are: (a) the nature of geriatric presentations, (b) provider knowledge-base, (c) consumer knowledge-base, (d) the ED resource-base, and (e) health care system fractures (Figure 1).

Antecedent Concepts
“Nature of geriatric presentations” is defined as the ways in which health-related problems are demonstrated by older adults in the ED. These problems were described as complex and multidimensional. “The complexity includes medical decision making and medical problems, medication list, and the associated cognitive difficulties associated with both medical conditions as well as the conditions that brought patients to the emergency department in the first place.” [Focus Group, FG 6] “They come in and we think, ‘Ok, I’m just going to do the same thing I do for every patient.’ But we know that this group has specific needs...”

Figure 1. A Perfect Storm: co-occurring antecedents that impact perceived quality and safety of transitions home from the ED.
that we need to address.” [FG 1] “I mean elderly patients don’t have as much reserve. They are different from younger patients...it’s not only the illness, it’s what else they have. We don’t have many elderly patients that are completely healthy.” [FG 6] “I think one of the challenges of taking care of elderly patients is that it’s not like a young person—they come in, you fix it and they go home and you don’t have worry about them. With the elderly patients there so many different aspects of how to take care of them. It’s not just chest pain, it’s everything else. You have to worry about family issues, you have to worry about the safety in the home and all these other issues.” [FG 9]

“Provider knowledge-base” is defined as the information about the patient possessed by the ED health professionals. Focus group members identified their need for information about the patient’s condition and health history. This information was seen as essential and often limited or unavailable. “They’ll be on multiple medicines and not know what they are. They don’t have a list. They are not sure what they’re for. You ask what their medical conditions are and they say ‘nothing’, but yet they are on 25 medicines.” [FG 2]

Health professionals also perceived a need for information about patients’ capabilities and living situation. This information also was often unavailable, but it was viewed as supplemental rather than essential. “We deal with them [older individuals] for such a short period of time that, like all those questions that you’re having like where do they go and all that stuff. You can’t think about it. You just have to deal with what you have to do.” [FG 8] “Is there anyone around? If they fell, are they going to fall again? Who’s out there to check whether they have rugs that they could trip on? It’s like, ‘You’re going home? You gonna be okay?’ ‘Yeah?’ ‘Okay’. It’s difficult with the elder adults. Either they can actually take care of themselves or they go home and do the best they can.” [FG 1]

“Consumer knowledge-base” is defined as the information the patient/family has or needs to successfully manage health problems. Some participants described consumer knowledge in relationship to how patients managed the new problems associated with their ED visit. Providing information was seen as an essential role of ED providers, but problems with providing education to older adults were also identified. For example, internal policies dictated providing every patient with standardized discharge instructions that many older individuals found to be confusing because they were unrelated to their ED visit. “We hand them this bundle of papers. I mean who is really going to read through 10 pages of small print.” [FG 2] “Our discharge instructions are very thorough. I think that’s actually part of the problem. Who wants to read it? Who cares that you should have a car seat? Or smoking? Everybody gets car seat safety. If it was me I’d wanna just toss it.” [FG 3]

Other participants expressed concern that the limited evaluation of consumer knowledge and skills regarding patients’ ability to respond to new functional limitations contributed to unsafe transitions. “We have what I call these marginal cases where, maybe they’ve got a sprained ankle or something. Is this patient really capable of crutch walking? Just because they can walk 10 feet on crutches does that mean they’re actually going to be able to function the next 3 days?” [FG 5] Overestimation of functional ability by older patients was noted by other participants. “Many older people are very used to being independent and not admitting that they may need help. [We ask] ‘Are you okay with this and do you think you can take care of yourself at home?’ [They respond] ‘Yes, I can take care myself at home’. We definitely see some people who return to the emergency department and require some sort of transitional care before returning to their regular lifestyle. Either it was not immediately apparent or some communication didn’t take place [during the initial ED visit] that could have.” [FG 6]

“Resource-base” is defined as the assets and liabilities available to health professionals in the ED environment that directly impact their ability to adequately prepare vulnerable elders for discharge home from the ED. Lack of time, particularly in relationship to the magnitude of the need and complexity of the care, was mentioned by every group. “They have a lot of issues...and they’re a lot of work. They’re time intensive.” [FG 3] “Many times when we are busy, we don’t inquire more about their living situation. I mean sometimes we are so concerned that they have an infection going on, but are they being abused? Are they receiving the care they need? Is the family around? We don’t really pay attention to those needs.” [FG 1] “You just have to get your task done. You can’t really put the time into thinking about what’s going to happen to this person.” [FG 8]

Another liability described was staffing and staff-mix. Lack of staff to attend to the special needs of older persons was noted. Some of the problems with staffing were related to time of day. “There are social workers. They both work together. One works until 5 or 6 and the other works until 11. If one is off then it’s pretty much until 5 or 6 o’clock. It’s more difficult when they’re not around.” [FG 1]

“System fractures” are defined as deficiencies and disconnects in the organization of health and social services. Four system fractures were described. First, the current system is characterized by limited or absent service elements. As stated in one focus group, “The services and the resources out there are limited. We send people out who would benefit from a service that just doesn’t exist.” [FG 7] “We used to discharge people with drugs like amoxicillin. We’d given them their first dose here. We’d send them home with one dose so they could take their morning dose and not have to worry about going to a pharmacy at 2 in the morning. But, we’re not allowed to do that anymore except under extreme circumstances. Who knows if they ever get any more? Who knows if they can get themselves out of the house to get that prescription filled?” [FG 3] “Emergency
Second, in the current system, there is a lack of connections among the elements that do exist. As stated in one group, “It is just so broken up. There is no communication between the resources they have whether it is the hospital or their doctors or social services, or their family members.” [FG 4] One specific barrier to continuity of care was described in another focus group. “I think HIPAA is a good concept but whoever decided to put it into practice didn’t think it through. I think it’s a mistake that we can’t check with other places, because you get these patients who have a prescription for digoxin and then Lanoxin. They’re taking them both and their heart rate is 12. There should be a system where doctors can see what other doctors are prescribing. This whole confidentiality thing has gone too far. They cannot see what we did for them because it’s a HIPAA violation to look it up. It’s just silly.” [FG 3] Others described missing elements that might improve care coordination. “The vision for us is case management resources… personnel that work and understand emergency medicine… who work with community resources and the hospitals and the outside physicians who take care of these patients to provide continuity of care and ease the transition out of the emergency department.” [FG 6] Third was lack of a structure for systematic follow-up. For example, “It’s up to the patient to set everything up and if we’re lucky, 60% probably do it. Sometimes in the ED we are really good at getting their appointments and giving them phone numbers but it’s up to them to show up or call.” [FG 9] Similarly, “I think the best answer is they need some sort of follow up but how that gets set up, that’s the million dollar question.” [FG 2] “So, I think if you made it so they had some sort of connection for leaving the hospital to going home, like send them home, then send someone to follow up on their care.” [FG 4] “If I was the king of the world, I’d have someone from the hospital do a home visit within a reasonable period of time. That would make me much more comfortable than depending on a home health agency or some outside agency because when you go interagency, things get mixed up.” [FG 5]

Finally, the quality of primary care outside of the hospital was seen as another system fracture as illustrated in the following story of a woman who returned to the ED following poorly managed treatment for hypertension following her initial ED visit.

She had high blood pressure, she was diabetic and she felt like her blood pressure wasn’t going down. So she went to her doctor and was prescribed another medicine. But, the doctor didn’t tell her that she needed to stop the first one. She felt like it wasn’t working either, so she went to the doctor again and the doctor prescribed her a third one but forgot or she didn’t understand him that she should stop the first two. So, here she is taking one and second and third. She was so pale. She was white... like that wall. Three blood pressure medicines... she’s taking one on top of the other. And every time the dose is higher too. [FG 1]

Relationship of Antecedents to Quality and Safety of ED Transitions to Home

The focus of this investigation was, from the perspective of ED personnel, the factors influencing the quality and safety of ED-to-home transitions for vulnerable older adults. These health professionals described quality and safety of transitions predominantly in terms of the likelihood of the elder having a repeat visit to the ED for the same or similar problem. One metric they used to assess quality and safety was their own discomfort about the ability of the patient to function at home or to follow through with recommendations made in the ED. They described links between each antecedent and the outcome.

System fractures, such as lack of service elements, were seen as having a direct impact on the quality and safety of transitions. “They [the elders] are able to function to a certain extent but they still need help. They don’t belong in a nursing home. These are the people who keep coming back because they have no one else to care for them except the hospital.” [FG 4] Similarly, consumer knowledge had a direct impact on the quality of transitions. “They don’t know where else to go when they need help. So, the only thing they’ll do is call 911 or push that little button they have, so then they come to the ER. So, what they do is they keep coming in here. It’s just making circles. It’s like chasing your own tail, back and forth, and back and forth.” [FG 4]

Provider knowledge base about the patient’s capabilities and living situation also contributed to poor quality transitions. For example, “I don’t feel comfortable sending her home and not because I didn’t think she wouldn’t get to her place, but because I didn’t know what she was going to do when she got home...even if she was going to follow up. I felt that she probably requires someone to be with her. We send them home and I’m not really comfortable with that but what do you do? I’m sure she’ll come back in two days, because there is nobody there to care for her.” [FG 4] “I wonder if they will have the resources on the outside to understand their follow-up because otherwise they end up coming here. We do see a lot of the same people.” [FG 2] “When you have an elderly couple, it’s kind of like the blind leading the blind. One family member is here in the ER and the doctors decide to discharge them home because there’s another person at home who can take care of them. You could send somebody home to a family member who is dependent on them [the patient] for care. That’s so scary!” [FG 5]

The ED resource base also influenced the quality of care transitions. “We don’t have time to do certain things, even though you want to. We’ve got to get this patient home. We need this bed.” [FG 1] The lack of both time and the most
appropriate staff to discuss what was done in the ED and to review the discharge instructions contributed to quality and safety concerns because it lead to inadequate self-man-agement of the problem when the patient returned home. “I mean we go over it [discharge paperwork] with them and ask them if they have questions, but we can’t pull it out of them. As sad as it sounds we just don’t have time to stand there and make sure that they really understand and really ask if they have any questions beyond the initial time.” [FG 5]

While some relationships participants described between the antecedents and the outcome were simple and direct, most examples involved complex interactions among antecedents. ED resource base limitations may prevent full exploration of the potential functional impact of an illness and any postdischarge implications. “Many times when we are busy, we don’t inquire more about their living situation.” [FG 1] “I worry about like where they’re going to go when they come in and they’re weak. They haven’t eaten and we are not going to feed them [before discharge]. They’re just sitting for like hours. We haven’t given them fluid. All we’ve done is drawn their blood, and taken their urine, and they’re just sitting there waiting. They get confused. They were brought in because they’re weak and maybe it’s because they haven’t eaten in 2 days. And, we haven’t fed them. You get so busy that you think about it but you don’t always do it because there are so many other priorities. Unless they’re diabetic, it’s low priority.” [FG 8] The combined effect of decreased functional reserve from the current illness and the potentially negative impact of the ED visit itself may affect the ability of the patient to comprehend the discharge instructions. “Sometimes the state they are in now, they don’t grasp even a basic understanding of these instructions. If there’s nobody else there to explain it, you are just depending on how much they understand. You know there’s a great chance that they are not going to follow their instructions. You’ll be seeing them again.” [FG 2]

Finally, the needs of the vulnerable older adult being discharged home from the ED may not be easily met because of systems fractures, lack of service elements, and ED resource issues. “We have a systems issue in terms of resources where a patient for example needs some assistance at home for their daily activities but they’re not really disabled or ill enough to need to be in a nursing home….but you know traditional insurance coverage doesn’t allow for home care …and we (the ED) don’t have the means. We can’t keep the patient here in the emergency department indefinitely because of the other 100 people that are waiting to be seen.” [FG 6] While any of the antecedent concepts may contribute directly and independently to the outcomes, their joint effect has potential for additional impact. As perceived by our focus group participants, and illustrated in Figure 1, the co-occurrence and combined effects of these antecedent concepts sets up conditions for “A Perfect Storm” that may influence the quality and safety of transitions home from the ED.

Discussion

The explanatory model generated in this study, “A Perfect Storm,” emerged from the perspectives of ED providers who described their experiences of caring for older adults who are discharged home directly from the ED. Although the literature on transitions of older adults from the ED to home is very limited, the antecedent concepts in our model confirm findings from other studies of ED care for older adults. The lack of family or other advocates for many older adults noted by participants in our study has been recognized by others as a major barrier to effective transitional care following an ED visit (Sanders & Morley, 1993). Our finding of the impact of incomplete or absent information about patients’ conditions (provider knowledge base) is consistent with findings from studies citing missing or limited information. However, the other studies focus on transfers of patients from nursing homes to the ED (Coleman & Berenson, 2004; LaMantia et al., 2010; McCloskey, 2011; Naylor et al., 2009).

Although the nature of geriatric presentations has been acknowledged (Emmett, 1998), the contribution of these presentations to ED care transitions has not been formally studied. Consumer knowledge base with particular emphasis on discharge instructions has received recent attention. Ackermann and colleagues (2012) reported that physicians drastically underestimated the time needed for providing discharge information to older adults being sent home from the ED. Others (Gignon, Ammirati, Mercier, & Detave, 2013) found that older adults’ poor comprehension of discharge instructions was linked with repeat ED visits.

Much ED literature has been devoted to examination of resources within the ED. After controlling for older patient characteristics, McCusker and colleagues (2007) found limited ED resources, no geriatric unit, and no social worker available in the ED in addition to other variables to be significantly and independently associated with shorter time to ED revisit. Boltz, Parke, Shuluk, Capezuti, and Galvin (2013) described ED nurses’ views on inadequate older person/environment fit in the ED. In particular, they identified themes of “time and staff to do things right” and “a safe and enabling environment,” which are similar to elements within our resource base concept. Awareness of the need for “elder friendly” EDs is increasing (Hwang & Morrison, 2007; Kelley, Parke, Jokinen, Stones & Renaud, 2011; McCusker et al., 2012). However, improving resources within the ED environment without improving other model components will have limited impact on the quality and safety of care transitions from the ED to home for older adults.

Findings from recent reviews have been used to provide practice, research, and policy recommendations for improving ED care transitions. Identifying those at highest risk of poor transitions, improving communication between sending and receiving clinicians, initiating referrals in the ED, and including post-ED home follow-up with patients are the most frequent recommendations (Hastings & Hefflin, 2005; Kessler et al., 2013; Limpahan, Baier,
Limitations and Strengths

As in other qualitative approaches, the outcomes identified in this study reflect the perceptions of the participants rather than direct measures of health services utilization. This study was conducted in a single ED and may not represent the perspectives of staff working in other EDs. Yet, as noted previously, the ED in which the study took place is typical of many EDs in the United States, which do not have providers with geriatrics expertise or “elder friendly” attributes. The staff who participated in our study gave voice to some of the same concerns and challenges experienced by others, but their stories and exemplars allowed us to extend findings from previous studies through a better understanding of relationships among the individual antecedent concepts and outcomes.

Conclusions and Implications

This study provides an important contribution to existing literature. We sought information about an under-studied group of older adults, those who are seen in the ED and discharged home without a hospital admission. To date, the needs of this unique group have been largely ignored. Findings from this study provide direction for future research. Older adults seen in the ED and discharged directly home have needs beyond their immediate ED visit. Perspectives of ED staff alone are insufficient for understanding the broader systems issues. Further qualitative studies that include perspectives of patients and non-ED providers are essential. In addition, quantitative studies that examine the combined effect of antecedents identified in this study on return visits to the ED and costs are needed.

From a policy perspective, this study identified new issues that merit attention. Older adults with lower reserve may be at increased risk of unsafe transitions home from the ED even when they present with conditions considered routine in younger age groups. The impact of the ED visit itself, combined with limited resources within the ED for evaluation of older adults’ ability to cope with new functional limitations has not received sufficient attention. In addition, these issues raise particular concern in light of research that documents challenges among older adults in arranging follow-up primary care (D’Avolio, Strumpf, Feldman, Mitchell, & Rebholz, 2013). The window between ED discharge and first follow-up may represent a period of increased vulnerability for older adults and may provide a new target for future policy, practice, and educational interventions.

Supplementary Material

Please visit the article online at http://gerontologist.oxfordjournals.org/ to view supplementary material.

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References


