Session # J3b

Why Do They Keep Coming Back? Understanding Hospital Readmissions for Diabetic Ketoacidosis from the Patient and Support Person Perspective

Jennifer Hodgson, PhD
Professor and Director of Medical Family Therapy
East Carolina University

Thompson Forbes, PhD
Assistant Professor
College of Nursing
East Carolina University

Julian Crespo, MS
Doctoral Student in Medical Family Therapy
East Carolina University

Eunicia Jones, MS
Doctoral Student in Medical Family Therapy
East Carolina University

Sandra Hardee, PharmD
Vidant Health Systems

CFHA 20th Annual Conference
October 18-20, 2018 • Rochester, New York

CFHA COLLABORATIVE FAMILY HEALTHCARE ASSOCIATION

Faculty Disclosure

The presenters of this session have NOT had any relevant financial relationships during the past 12 months.

Conference Resources

Slides and handouts shared in advance by our Conference Presenters are available on the CFHA website at http://www.cfha.net/?page=Resources_2018

Slides and handouts are also available on the mobile app.

Learning Objectives

At the conclusion of this session, the participant will be able to:

- Describe a research-informed theory for why patients with diabetes are readmitted for DKA in tertiary care settings. Identify …
- Define the factors that influence DKA readmissions from the patient's and support person's perspective
- Identify possible solutions that include patients and family member perspectives to help reduce hospital DKA readmission rates.

Bibliography / Reference

Dungan, K. (2012). The Effect of Diabetes on Hospital Readmissions. *Diabetes Technology Society, 6*(5):1045-52

Engel, G. (1980). Clinical application of the Biopsychosocial Model. *American Journal of Psychiatry, 137*, 535-544

Hardee, S., Crickmore K., Njuguna, N., Allis D., Brewington, D., Patil, S., Hofler, L., Tanenberg R., (2015). Interdisciplinary diabetes care: A new model for inpatient diabetes education. *Diabetes Spectrum, 28,* 276-282.

Houston-Barret, R., & Wilson, C. (2014). Couple's relationship with diabetes: Means and meanings for management success. *Journal of Marital and Family Therapy, 1*, 92-105.

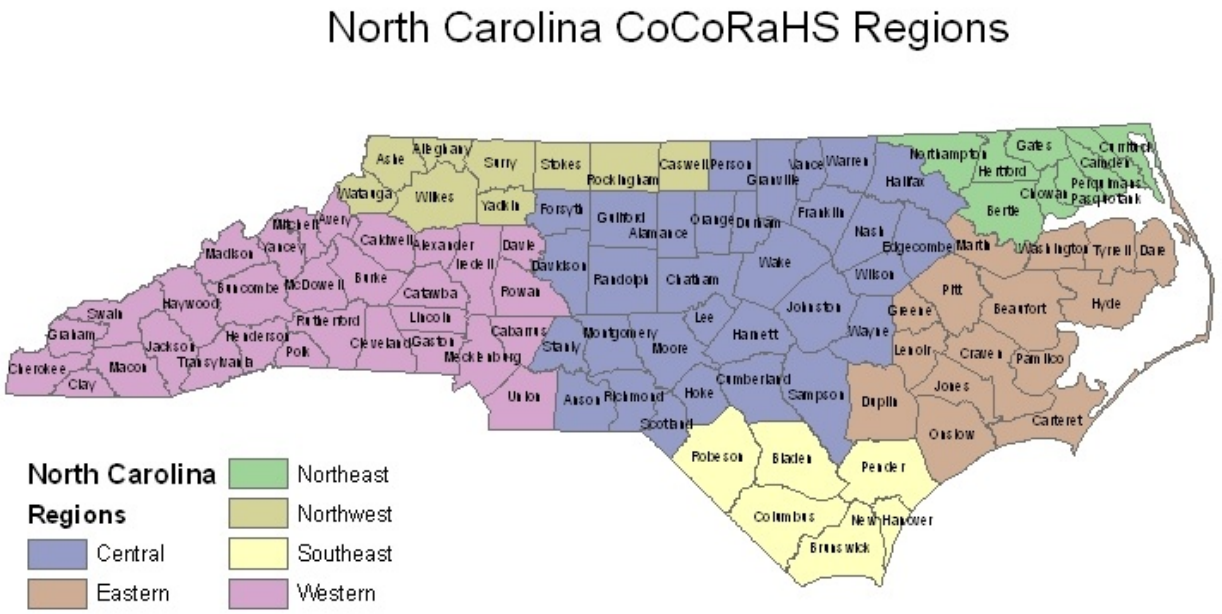
Jiang, J., Stryer, D., Friedman, B., & Andrews, R. (2003). Multiple hospitalizations for patients with diabetes. *Diabetes Care. 26*(5): 1421–1426.

Learning Assessment

A learning assessment is required for CE credit.

A question and answer period will be conducted at the end of this presentation.

Our patient population



Rural North Carolina residents

34% of VMC patients have diabetes, accounting for 12,000 admissions/year

In FY15, of the 483 DKA admissions, 29% were for patients admitted more than 3 times in the year

Typical patient profile for DKA readmission

- Type 1 diabetes
- African American male
- Single or divorced
- Over age 30

Background of study…

Ongoing efforts made to meet the needs of DKA patients with frequent readmissions

- Affordable insulin
- Follow up appointments made with PCPs soon after discharge
- Transitional care nursing follow up (including home health)
- Intense diabetes self-management education
- Enrollment in third-party payment plans

Despite these efforts, a subset of diabetes patients continues to come to the hospital frequently with DKA

Frustration level of health care team members is HIGH!!!!

WHY do these patients habitually develop DKA and seek hospital care?

WHAT INTERVENTIONS would reduce this outcome?

Purpose

To construct a substantive theory that explains how biopsychosocial and spiritual domains interact with and influence hospital readmissions for DKA.

Research Design: Grounded Theory

Grounded theory has been utilized to identify and comprehend extremely complex healthcare phenomena (Falke & Lawson, 2014), due to its ability to determine categories (Wooley, Butler & Wampler, 2000) and establish possible intersections among those categories (Strauss & Corbin, 2007).

Purposive Sampling Method

Daily admission records were reviewed by one member of the research team for patients who met the following criteria: (a) 18 years old or older, (b) admitted to the hospital as a result of a DKA episode and have a prior admission for a DKA at least two additional times in the previous twelve months, (c) verbal and written fluency in English or Spanish, and (d) preferably had one member of their social support system committed to being interviewed in the hospital setting prior to the patient's discharge.

Patients were to be excluded from the study if they: (a) had been diagnosed with gestational diabetes and (b) demonstrated mental confusion or illness (e.g., dementia, psychosis, mania) that would compromise the patient's ability to provide consent.

Patients and their identified support persons were interviewed until theoretical saturation was reached and a substantive theory constructed (Strauss & Corbin, 1990).

Table 1

Patient Demographics

Characteristic	N (%)
Gender	
Male	8 (62)
Female	5 (38)
Age	
≤ 30	8 (62)
31-40	2 (15)
41-50	0 (0)
51-60	3 (23)
Racial/Ethnic Heritage	
Black, African American	11 (85)
Non-Hispanic White, Euro-American	1 (7.5)
Hispanic	1 (7.5)
Insurance Coverage	
Uninsured	8 (62)
Insured	5 (38)
Support Person	
No Support Identified	6 (46)
Support Person Identified	7 (54)

Table 2

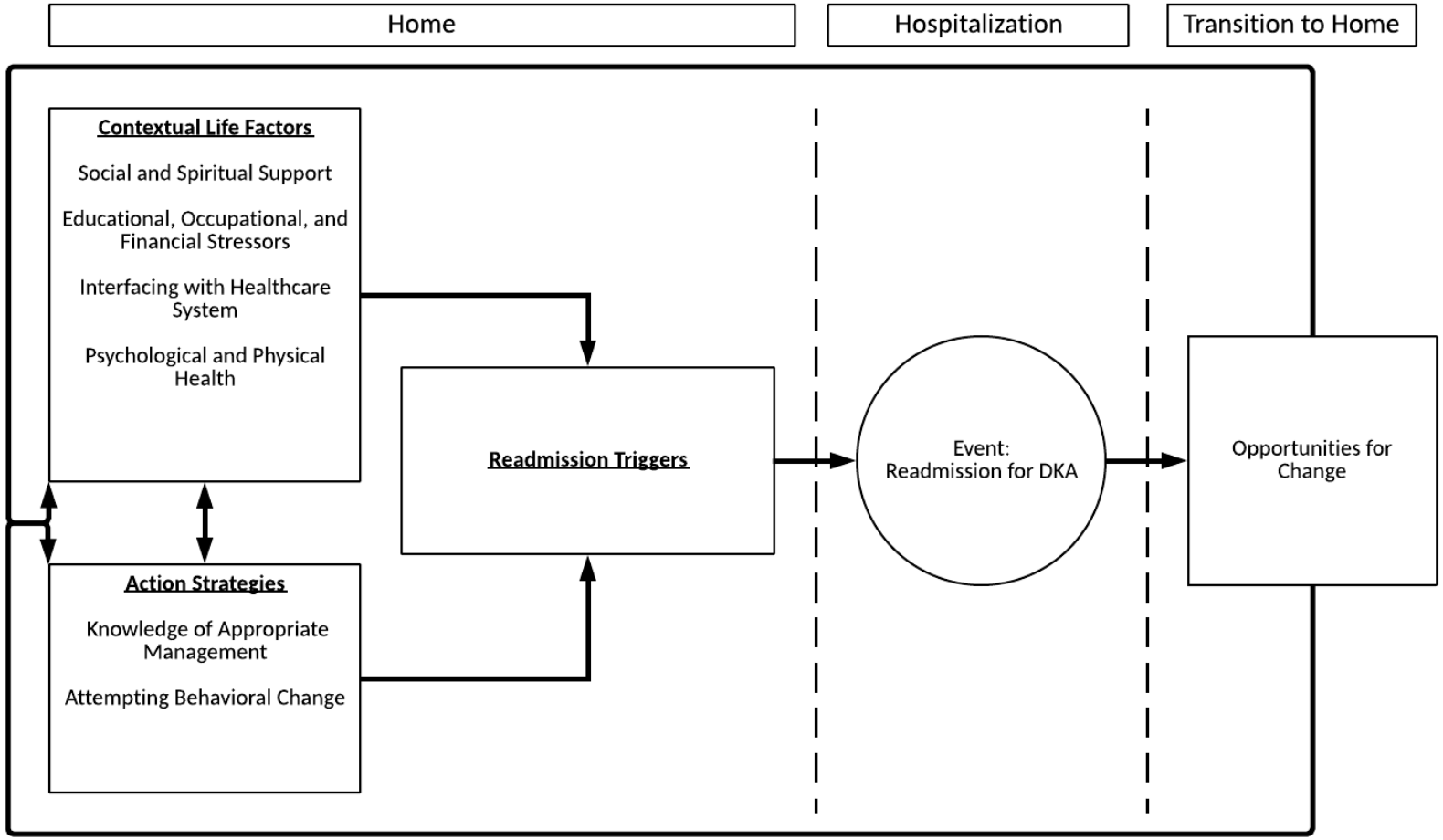
Support Person Demographics

Characteristic	N (%)
Gender	
Male	1 (17)
Female	5 (83)
Age	
≤ 30	2 (33)
31-40	1 (17)
41-50	0 (0)
51-60	3 (50)
Racial/Ethnic Heritage	
Black, African American	5 (83)
Non-Hispanic White, Euro-American	1 (17)
Hispanic	0 (0)
Support Person Type	
Family Member (non-spouse)	2 (33)
Spouse or Intimate Relationship	3 (50)
Friend	1 (17)

Interview and Analysis Method

- Semi-structured Interview Method
- Corbin and Strauss' (1990) three-step data analysis procedure: (a) open coding, (b) axial coding, and (c) selective coding.
- Once the relationships between coding categories and subcategories were established, the research team integrated them into a cohesive theory allowing the story line about DKA readmissions to emerge.

The DKA Readmission Cycle



Home: Contextual Life Factors

Social support

- "I'm so sick of it. It's just so much stuff and it's five of us. And everybody not willing to help, you know, so that can be really stressful. Everybody not willing to help." – Twin (patient)
- "She supports me. It's kind of hard for her too though. She don't know nothing about it really, and she, yeah, she works two jobs. I mean, she makes me take my medicine every day and whatever. But as far as eating healthy stuff, she really don't know which direction to go in. we've been trying to search some stuff though." Rose (patient)
- …the one thing that we all need as human beings is some kind of a support system from somebody else that says 'Hey, I believe in you' or 'Hey, you doing a good job' or 'Hey, you doing alright' or 'Go ahead. Keep pushing.' When you have that, it helps you out, you know, even if you just day by day or week by week that you communicate with and that brings you up. Vonni (patient)

Spiritual support and resources

- "Though it is hard to attend church sometimes, his spiritual beliefs have not changed." – Claire (support person)
- "I have… It's great… It's releasing pressure and taking a lot off my mind, my heart. It sort of kind of like lifting off my burdens." – Vonni (patient)

Home: Contextual Life Factors

Educational/occupational circumstances

- "She is between jobs a lot, because a lot of times when she ends up in the hospital, you know, her job is gone." – Simoine's support person
- "I was working at [local company], building airplanes…I was having episodes there where my sugar would drop. There was an episode where it dropped too low. I couldn't get it up. They had to wheel me to the cafeteria. I actually didn't leave. They fired me…. I worked there for three years…it was a strain with diabetes." TJ (patient)

Financial circumstances

- "She ran out of medicine. She don't have enough money to pay for it." – Toyjoy's support person
- "I mean, the big issue, if you want to talk finances… is the insurance. He doesn't have insurance and it makes it very very difficult for him to properly take care of himself."- Matthew's support person
- "I've stopped car payments to get my medicine. I've stopped paying rent to pay for my medicine. I mean, it's life or death." TJ (patient)

Home: Contextual Life Factors

Interfacing with healthcare system

- "The doctors don't listen to me. I tell them the medicine I take… I feel better when I don't take the medicine. But after a while, if I don't take it, I end up here… They always like 'Are you taking your medicine?' Yes, I'm doing that and I still end up here so it's something else!" – Simoine (patient)
- "You know, they did give him another avenue to make a smaller copayment to be able to go see that specific doctor. Also, the ability of the outpatient provider to assist the patient with obtaining insulin for no or a reduced cost was the major opportunity for supporting the patient." (Matthew's support person)

Psychological and physical health impacts

- "I can honestly say that getting out this time, the strength is a lot less." – Aaron's support person
- "I had a lot of the burden put on me, and I did the best I could by myself." – Teddy's support person
- "…he stresses himself a lot. He gets to worry about things too quick, and things like that too where sometimes he doesn't have an appetite."- Antonio's support person

Home: Action Strategies

Knowledge of appropriate management

- [I need] to do what I need to do, you know, follow the guidelines [to avoid coming back to the hospital]. Eating and drinking every day and then I got to keep monitoring my glucose. That's what I mean by following the guidelines. – Matthew (patient)
- "I mean I knew he had the flu myself, but I didn't really think that it would affect his sugar the way that it did. But I mean when I saw that it was affecting his sugar, I mean I obviously agreed with everyone that he needed to come to the hospital." - Claire (support person)
- "Absolutely and monitor my blood sugar but that's, hey, strips. That's expensive too. It's in the same vain as getting the insulin. I have to test 10 times a day and it costs $10 to get a 50 pack of strips then that's $10 a week or more. It's $12 a week on average if you do that. So I can't test test…I can test 10 times a day but I also can't afford another $50 to $60 a month bill on top of what I have. So, I try to test when I'm supposed to: when I wake up, before meals, and before bed." - AB (patient)

Attempting behavioral change

- "[My thoughts, feelings, and behaviors have] gotten a lot better [since my last hospitalization]". – Lynn (patient)
- "trying to do better so I don't have to be in [the hospital]"… Antonio (patient)

Home: Readmission Triggers

- “He stayed out of the hospital this long, and I think that, honestly, the only reason that he ended up [readmitted] with DKA is because of the flu. Because, I mean, the flu it does state that it throws his body out of whack, so he couldn’t tell.”- Claire (support person)

- “Sometimes he run out of medicine and they don’t deliver on time and [he has to go to the hospital]…Uh, yeah, because he get sick.”- Teddy’s (support person)

Transition to Home

Opportunities for Change

- "This time it scared me. I've never been unable to breath. It really did tear my nerves up. I think this time it really scared me to the point where I need to stay on track." – AS (patient)
- "They should actually figure out something that's going to work instead of just sending me home. Whatever and I'm back here [they just give me] another regimen." – Rose (patient)
- "I [need to] hang around with people that are like doing something with themselves [positively] and they see me doing something [positive]. I [need to] try to keep day to day communication with them."- Vonni (patient)
- "Well, I don't like [having to take him to the hospital] but, I mean, he [is] going to get better care there [at hospital] than he can here [at home]." – Teddy's support person

Recommendations

Goals:

- To develop cultural competence and cultural humility at the institutional level
- To better engage support persons in patients' care

Implementation Strategies:

- Design a relationally driven healthcare system that considers the patients' culture and social environment in treatment planning.
- Recruit champions from local communities to connect with patients at discharge to assist with meeting the culturally appropriate needs patients need to be successful managing their diabetes diagnosis.
- Study readmission rates looking at intersectionality of power and how this influences those who are most marginalized in society

Session Evaluation

Use the CFHA mobile app to complete the evaluation for this session.

Thank you!

CFHA COLLABORATIVE FAMILY HEALTHCARE ASSOCIATION