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The Development of Knowledgeable Nursing Assistants as Creative Caregivers (KNACC)

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Abstract

Certified nursing assistants (CNAs) provide 80% of direct care in long-term care settings and are critical to maintaining resident well-being. Arts-based approaches to enhancing meaningful engagement have the potential to empower CNA ownership in the process of improving patient-centered care. We held a series of focus groups with CNAs (n=14) to adapt arts-based creative caregiving (CCG) techniques for use in long-term care. Iterative revisions focused on CCG techniques, factors influencing implementation, and usability. The Knowledgeable Nursing Assistants as Creative Caregivers (KNACC) manual developed from the adapted CCG describes training guidelines and instructions to facilitate CNA use of creative caregiving techniques in direct care.¹

Keywords

creativity; long-term care; caregiving; arts; certified nursing assistants

Introduction

Twenty million individuals in the US require help with self-care tasks, including one million living in residential care and 1.5 million in nursing homes.¹ Long term services and supports are the care provisions people need when they cannot complete self-care tasks independently. These services are provided in both community-based and institutional

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Declaration of Competing Interest

Declarations of interest: none.

Data Statement

The data that support the findings of this study are not publicly available in order to protect the confidentiality of the small sample.

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settings.² The number of direct care jobs is expected to increase by 1.3 million by 2028,¹ with 25% of the workforce demand in nursing homes and 25% in residential care facilities.² Most long-term care staff are certified nursing assistants (CNAs), who provide 80% of the direct care residents receive from providers.³⁻⁴ Certified nursing assistants are critical in enhancing resident well-being and ensuring optimal care outcomes. This requires training to use complex skills that lead to relationship building and effective communication; however, training varies greatly and needs to be more consistently implemented.¹

The role of the CNA is vital to the health and wellbeing of older adults living in long term care (LTC), who may experience increased levels of isolation. Social isolation is connected to increased risk for depression, cardiovascular disease, high blood pressure, cognitive decline, and morbidity.⁵⁻⁷ This places an additional burden on CNAs to increase engagement with residents and provide person-centered care. Interventions that enhance engagement through meaningful activities have been found to elevate mood, increase sense of purpose, and increase longevity.⁸⁻¹⁰ Arts-based activities have been linked to reduced loneliness and social isolation while increasing socialization and communication.¹⁰

Direct care workers have the ability to implement creative care techniques to improve person-centered care and reduce social isolation. Arts-based approaches to healthcare are used in various settings to improve employee satisfaction,¹¹ enhance patient and staff relationships,¹² and reduce stress and burnout.¹³ Staff training, patient interactions, and caregiving practice have been targeted through CNA interventions using arts-based techniques.¹¹ In our previous work examining CNA perceptions of creativity in relation to direct care of LTC residents, we found that CNAs recognize the value of creativity, using it to solve problems and build relationships. CNAs are well-positioned to engage residents creatively as part of their daily work, empowering CNA ownership in the process of improving patient-centered care.¹⁴

A guided systematic approach to learning skills that enhance creative engagement may strengthen the ability of CNAs to influence positive resident outcomes. It may also have the benefit of increasing personal empowerment and satisfaction while working within LTC. Kantor's structural empowerment theory explains the concept of one's perceived situational influence on one's ability to do their job well.¹⁵ Regardless of individual personality, it has been well-established that empowerment occurs only when the employment situation provides opportunity, resources, information, and both informal and formal support.¹⁵⁻¹⁶ Staff feel empowered when opportunities for growth and development are readily available in the work environment.¹⁷⁻¹⁸ Introducing creative engagement as a skill that CNAs use to enhance the well-being of older adults in their care has the potential of increasing perceptions of situational influence through development, resource sharing, and support.

The purpose of this study was to collaborate with CNAs to translate the National Center for Creative Aging's Creative Caregiving Guide (CCG)¹⁹ for CNA use in the everyday course of long-term care. The (CCG) is a multimedia web-based toolkit consisting of video modules and instructions for arts-based Creative Caregiving communication techniques, derived from evidence-based motivational and constructionist communication approaches.¹⁹ Each module has four training components (preparation, complete training video, individual steps in the

process, and feedback and reflection) that teach specific creative interactive techniques integrating movement, music, storytelling, art making, poetry, and reflection. The CCG was originally developed, in partnership with professional teaching artists, for family caregivers of persons living with dementia for use in the home environment to support positive interaction, communication, and enhance connection.¹⁹ However, many LTC residents don't have families present to practice CCG. While nursing assistants are well-positioned to engage residents in new and innovative ways, obstacles include competing time demands and lack of systematic training.

The purpose of this manuscript is to describe the process to determine, via a participatory approach, what adaptations need to be made to the CCG techniques and materials to support usability, relevance, adoption, and integration by CNAs in a long-term care setting.

Methods

Design

This participatory qualitative component of a larger mixed methods study aligned with Stage 1A of the NIH Stage Model²⁰ to inform intervention adaptation and refinement. We conducted a series of focus groups with CNAs to adapt the CCG to enhance usability and acceptability in the long-term care setting. The University of Utah Institutional Review Board provided oversight and determined this study was exempt (IRB #00088935).

Setting and Sample

Participants were recruited from two LTC facilities. Inclusion criteria entailed employment as a Certified Nursing Assistant at our partner facilities. Those who were not able to understand spoken English, were still in training, or had disciplinary investigations or actions pending were excluded.

Recruitment occurred at two for-profit long-term care facilities, one facility had 102 beds, and the second had 122 beds. Facility administration contacted nurse managers to distribute study flyers inviting CNAs to learn more about study participation from the research team. Information about the study was presented by the principal investigator at a facility-wide CNA in-service. Those interested in learning more provided their contact information and met individually with the study team to review study procedures, screen for inclusion criteria, answer questions, and invite to participate. Facility administration and staff were not involved in explaining study information, answering study questions, or obtaining informed consent. The research team emphasized that participation was each person's individual choice and that there would be no negative consequences for not participating. Written informed consent was gathered from all participants by the research team. Those younger than 18 completed an assent form and gained parental consent in order to participate. Participation in workplace-based research may induce burden for the CNAs and the organization, so all participants were compensated \$25 in gift cards for each focus group meeting attended.

Procedures

A series of six sequential focus groups (two groups of CNAs attending a series of three groups over four months, N = 14) were led by Drs. Eaton and Cloyes who are experienced focus group facilitators and alternated roles as facilitator and observer. Acceptable focus group size ranges between 4 to 12 participants, with a minimum of three focus groups producing 80 to 90% of themes.^{21–23} Focus groups were held at a time and location that was convenient to staff and commensurate with workflow (e.g., following regular staff meetings or regularly scheduled in-service trainings). Each focus group was scheduled to last 60 minutes. Revisions of intervention materials were brought to each subsequent focus group meeting as part of iterative review.

Data Collection

All focus group meetings were audio-recorded and transcribed verbatim. Field notes were recorded to document contextual factors and non-verbal behaviors. Before holding focus groups, each participant completed a demographic survey using pencil and paper.

Measures

The focus groups incorporated open-ended questions to elicit discussion and review of the CCG.^{21–23} Focus group one focused on asking CNA questions surrounding key caregiving issues and creativity. Results from focus group one were used to describe CNA assumptions about creativity, which were published previously.¹⁴ During focus group two, participants reviewed the Creative Caregiving Guide and provided feedback regarding relevance to their caregiving work. Questions focused on ease of understanding and use, accessibility, utility, barriers to implementation, and adaptation needs for adoption in long-term care settings. Focus group three asked participants to review the CNA prototype CCG manual developed from previous focus group data. Example focus group questions included: how does creativity relate to your work, which components of the CCG are relevant to your work and why, what elements of the CCG need to change in order for CNAs to use these techniques, what do you like/dislike about CCG components, and what is missing? Demographic questions were asked of each participant to describe those involved in the study. Questions included education, gender, age, number of years as CNA, etc. (Table 1).

Data Analysis

Three co-authors [Eaton, Cloyes, & Paulsen] engaged in iterative, ongoing analysis of focus group data. Transcribed audio, notes, and CCG materials were imported into NVivo 12²⁴ for data management and coding. An interpretive descriptive framework²⁵ was used to focus on summarizing content and process related to CNA-guided adaptation of the CCG, as well as identifying factors that may influence future implementation as outlined in Bowen et. al.'s phases of intervention development.²⁶ Supporting documentation was integrated throughout analysis to create a narrative description of the participatory process of adaptation including challenges, actions taken to overcome problems, accrual, and attrition. Content that did not align with the coding schema, or was difficult to code, was discussed among the three conducting analysis. Consensus was required before assigning the content a code. Findings

were directly incorporated into revisions of the CCG. Demographic data was summarized using descriptive statistics.

Results

We recruited a total of 14 CNAs to participate in focus groups. Characteristics of CNA participants are displayed in Table 1. The average length of each focus group was 58 minutes. Nine participants attended all three focus groups, two attended two focus groups, and three attended one focus group (n=14). Analysis of CNA focus group discussions yielded input (Table 2) in three key areas: 1) CCG techniques, 2) Factors influencing implementation, and 3) Usability. Here we describe specific points about this feedback which informed the revision of the CCG manual.

CCG Techniques

Feedback specific to CCG Techniques focused on activities, process, content, instructions, modifications, and refinements. CNAs viewed the term '**activities**' as formal, involved, and requiring a lot of effort. They did not feel that the word adequately represented CCG techniques, which they viewed as prolonged moments and "connections" focusing on residents.

The four main areas of **process** included time, previous experience, assumptions, and training. Recommendations were made to include the following in trainings: 1) a visual example, 2) opportunities to slowly learn each technique, and 3) time for individual practice.

Feedback specific to the type of **content** included in the manual focused on simplifying instructions in order to increase adoption, outlining the benefits of CCG for both the residents and the CNA, and tips to adapt each technique depending on shift and amount of time available.

Changes were recommended for the introduction. These included adding **instructions** to allow for a train the trainer model and defining terminology. Many CNAs were concerned that certain CCG techniques may be difficult to teach to others, "...this intimidates me." Thus, short general instructions were important for adoption.

Participants identified **modification** recommendations for the manual. These focused on improving the stated purpose, increasing font size, adding examples demonstrating how to use each technique, and options to adapt based on individual resident needs. For example, one modification recommended by a CNA was the use of items already in the room, (e.g., images, photographs, stuffed animals) to assess resident preferences and tailor activities to the individual. Participants felt that activities should emphasize normal, natural, and small day to day routines that focus on resident strengths. Changes emphasized how CCG may benefit CNAs, such as reducing distress through redirection and creating joy.

Factors Influencing Implementation by CNAs in LTC Setting

Eleven factors were identified as influencing implementation. **1) Leadership** among the CNAs was not organized within a formal structure; it was unclear whether they were

supposed to proactively take initiative to lead. **2) Staffing** issues influenced the ability of CNAs to participate in the implementation of creative care, education, and training. **3) The practices and policies already in place** influenced perceptions of CNA use of CCG. If techniques were perceived to overlap with other positions, assumed CCG was an art project, or required “talent” CNAs were less likely to perceive the activity as helpful or part of their work. **4) How can this benefit residents?** Rationale was needed to help others understand CCG usefulness, benefits to residents, and the context of its use. **5) How can this benefit staff?** CNAs wanted to know how these techniques improve care and make working with residents easier. **6) How might this work with residents living with dementia?** Instructions should help CNAs understand how to use techniques with residents who have dementia. **7) CNA Flexibility and Creativity.** CNAs wanted the option to use these connections when and where possible, adapting for each resident and situation. **8) Time Management** is a challenge. Developing techniques that can be integrated into the work routine, may increase implementation. **9) Organizational investment in CNAs** is important. Recognition of the value of CNA work may occur through adequate pay and staffing levels. **10) Accessibility** should be increased through the use of plain language, clearly outlining techniques, and keeping the CCG simple. **11) Teaching modality** will improve implementation, especially if trainings are incorporated into in-services, use video examples, hands-on practice, and observation.

Usability

CNAs described usability of CCG techniques in four areas: effectiveness, specific goals, efficiency, and satisfaction. In order for the CCG to be **effective**, the manual needed to support adaptation and flexibility to accommodate the realities of workflow. **Specific goals** of the CCG should improve CNA experience by building confidence and motivation. It should also enhance the experience of residents by alleviating suffering, pain, anxiety, and boredom. Participants requested ways to deliver these techniques **efficiently**, with minimal impact on workflow, low costs, and high benefits. **Satisfaction** surrounding the CCG was linked to accessible and clear language, identifying benefits, low time commitment, ease of teaching, and no overlap with other long-term care positions.

Summary of Recommendations for Adaptation

We made multiple revisions to intervention materials and a CNA focused CCG manual was developed based on focus group feedback (Table 3). Data from focus groups prompted us to change terminology and reduce jargon. For example, the word “activity” was changed to the participant recommended term, “connections,” which we defined as interactions that represent short connections with others. We reformatted the manual, adding estimated times for each connection and options for adapting techniques based on a variety of situations (e.g., time of day, individual needs, etc.). Benefits to the CNA and residents were also emphasized.

We learned that CNAs prefer visual representation, or active learning with a CNA trainer versus reading a manual. The manual would be a guide, but not a product to be placed in the hands of all CNAs. In preparation for future pilot testing, we also asked CNAs about data collection techniques for documenting daily use of CCG techniques. Participants

reported a preference to 1) use their own cellphones, and 2) text instead of voice for communicating with researchers. We prepared the CCG Guide, training, and data collection materials based on these recommendations. The adapted CCG guide was named The KNACC (Knowledgeable Nursing Assistants as Creative Caregivers) to focus on the new purpose.

Discussion

Data from this study facilitated multiple revisions of the CCG for use by CNAs in LTC. These revisions can be summarized in the context of areas identified by Bowen et al., as important for intervention development, including *adaptation, integration, implementation, and acceptability*.²⁶ We **adapted** the CCG, which was originally developed for family caregivers of persons living with dementia in the home setting. Iterative revisions occurred following each focus group. Elements that were difficult for use in the day-to-day work of a CNA were removed. Feedback improved the manual by reducing jargon, emphasizing benefits for CNAs and residents, and tailoring techniques to increase focus on the individual resident. These revisions have the potential to facilitate person-centered care, promoting respect, developing empathy, and creating positive social environments.²⁷ Arts-based techniques have a long history of enhancing person-centered care.¹⁰

Integration of CCG for use by CNAs in LTC was discussed throughout focus groups. The adapted guide was named The KNACC (Knowledgeable Nursing Assistants as Creative Caregivers) in order to acknowledge the CNA guided revisions of the original CCG. In addition, plans were made to assess integration in the day-to-day work within LTC during pilot testing.

Factors affecting future **implementation** focused on the complexity of techniques and time for training. All techniques that required physical supplies, and time to develop (such as art making) were removed to reduce complexity, cost, and time. Alternative options were provided to facilitate CNA choice to improve individual comfort in the types of techniques applied. This meant that CNAs were not required to use techniques outside of their level of comfort.

Partnering with CNAs to adapt the CCG for use in LTC was important for developing an intervention that was also **acceptable** to CNAs. Most important was developing an approach within KNACC that offered CNA autonomy in deciding how to incorporate techniques in the care they provide.

The strengths of this study included the partnership with CNAs to revise and prepare a CNA specific CCG. Participants were interested in skill building that both helped them save time and improve care. In addition, CNAs expressed a desire to participate in research and making decisions that influenced the type of work that they participate in. Developing the KNACC manual in partnership with CNAs helped us target revisions for acceptability and usability to enhance implementation of the revised CCG. The KNACC has potential to promote opportunities for CNA leadership, choice in applying unique caregiving skills, and opportunities to improve enhanced job efficacy and perceived situational influence. These

opportunities directly relate to increasing structural empowerment, which is connected to CNA job satisfaction and retention.^{18,28–29}

This study describes initial Stage 1A intervention development.²⁰ Methodological strengths include the use of multiple phases of iterative revision using participant feedback and initial testing. Limitations include a small sample size from two LTC facilities. Focus groups also have the potential of influencing individual response, as participants listen to others' perceptions. We kept groups small, to increase the amount of time each person had to speak, and we made observational notes to help us document participation. This allowed us to invite comment and feedback from those not interacting as frequently. Our next step includes pilot testing the KNACC in the LTC setting which will allow us to further assess implementation, acceptability, and potential outcomes relevant to CNA job satisfaction and empowerment.

Conclusion

Nursing assistants have the potential to become experts in creative caregiving. They are not always included as part of the care team, even though they provide the majority of frontline care. Their expertise comes in the day-to-day application of skills. By acknowledging this expertise, KNACC has the potential to empower, enhance job satisfaction, and highlight expertise that CNAs can share with family members during LTC visits.

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Abbreviations:

1	
CCG	Creative Caregiving Guide
CNA	Certified Nursing Assistant
LTC	Long Term Care
KNACC	Knowledgeable Nursing Assistants as Creative Caregivers

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Highlights

- CNAs want to partner on research to improve direct care work
- Knowledgeable Nursing Assistants as Creative Caregivers (KNACC) development is described
- KNACC provides guidelines to facilitate CNA use of creative caregiving techniques

Table 1

Demographic Characteristics

Characteristic	(n = 14)
	Mean (SD)
Age	35.17 (15.97)
	No. (%)
Sex	
Male	3 (21.4%)
Female	11 (78.6%)
Race	
White	8 (57.1%)
Black/African American	1 (7.1%)
Asian	0 (0%)
Pacific Islander	2 (14.3%)
Native American	0 (0%)
Other	3 (21.4%)
Ethnicity	
Hispanic	1 (7.1%)
Not Hispanic	13 (92.9%)
Relationship Status	
Single (never married)	5 (35.7%)
Separated or Divorced	4 (28.6%)
Married	5 (35.7%)
Registered domestic partnership or civil union	0 (0%)
Widow or Widower	0 (0%)
Education	
Did not graduate from high school	1 (7.1%)
High School graduate	11 (78.6%)
Associate Degree	0 (0%)
Bachelor's Degree	1 (7.1%)
Master's Degree	0 (0%)
Doctorate	0 (0%)
Post-Graduate Degree	0 (0%)
Years Worked as a CNA	
Less than 1 year	1 (7.1%)
1–2 years	6 (42.9%)
3–10 years	4 (28.6%)

Characteristic	(n = 14)
	Mean (SD)
More than 10 years	3 (21.4%)
Years Worked at Current Facility	
Less than 1 year	3 (21.4%)
1–2 years	6 (42.9%)
3–10 years	5 (35.7%)

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Table 2

Focus Group Codes

Code Name	Number in Code	Examples – Main concepts within each Code
CCG Techniques		
Activities	17	<ul style="list-style-type: none"> ● The word activity ● Focus on the residents ● “It’s not like Footloose” ● Describing a painting ● Folding laundry ● Sing along ● Breathing together ● Dance for residents ● Change environment ● Tool to cheer someone up ● Outcomes focused
Process	36	<ul style="list-style-type: none"> ● Time ● Previous experience ● Assumptions ● Process of training
Content	21	<ul style="list-style-type: none"> ● What to fix ● Strategies ● Simplify ● CNA self-care (activities for self) ● Benefits ● Tips for use ● What is good
Instructions	33	<ul style="list-style-type: none"> ● Introduction ● Is there a CNA leader ● Instructions that work ● Instruction changes ● Teaching
Modifications and Refinements	41	<ul style="list-style-type: none"> ● Changes ● Purpose ● We don’t do these things
Implementation		
Factors Influencing Implementation	51	<ul style="list-style-type: none"> ● Leadership ● Staffing ● Similarities and differences with practices and policies already in place ● Rationale to help others understand how this can benefit residents – how can this benefit residents? Usefulness and Context of the resident ● How can it benefit staff to improve care? ● How might this work with residents living with dementia? ● CNA flexibility and creativity ● Time management ● Organizational investment in CNAs ● Accessibility ● Teaching modality
Usability		
Usability: Effectiveness	28	<ul style="list-style-type: none"> ● Flexibility/adaptation for realities of job ● Must consider effectiveness of techniques and teaching/training methods
Usability: Specific Goals	20	<ul style="list-style-type: none"> ● CNA specific: improved care ● Resident specific: alleviate pain/anxiety, increase joy
Usability: Efficiency	19	<ul style="list-style-type: none"> ● Working with more than 1 resident at a time ● Work it into everyday activities ● Target multiple areas ● Smaller scale ● On the fly
Usability: Satisfaction	16	<ul style="list-style-type: none"> ● Accessible language ● Benefits

Code Name	Number in Code	Examples – Main concepts within each Code
		<ul style="list-style-type: none">● Low time commitment● Ease of teaching

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Table 3

CNA-Guided Refinement of the Creative Caregiving Guide

Original Creative Caregiving Guide (CCG)	
Component	Content
Individual Online Videos	Professional teaching artists guide family member and care partner through a variety of arts-based activities
Video Lesson Topics	<ul style="list-style-type: none"> - Visual Art - Music - Dance & Movement - Poetry & Language
Lesson Content	<ul style="list-style-type: none"> - Introduction & Lesson Objectives - Preparation instructions, supplies, expected time commitment - Video lesson organized into 5 components: 1) Consciously Breathe, 2) Sing & Move, 3) Call & Response, 4) Create Together, 5) Savor the Moment - Print friendly written instructions for each lesson
KNACC: Adapted CCG for CNA Use	
Component	Content
Developed Manual of Instruction	<ul style="list-style-type: none"> - Table of Contents - Introduction - Training - Creative Care Plan – how to create and the benefits for CNAs & resident - Tips for Use - Connections (techniques) - Examples
Instructions on Using Manual	<ul style="list-style-type: none"> - Definitions of concepts - Time Management & time commitment - CNA competencies - Goals for: 1) Trainer, 2) CNA, 3) Resident
Connections	<ul style="list-style-type: none"> - Replaced the word “activity” with the word “connections” which CNAs identified as fitting in their scope of practice and less associated to activity directors. - Refined to fit the needs of CNAs – removed topics/lessons that were time and resource intensive (such as painting/art making)
Instructions for using each Connection	<ol style="list-style-type: none"> 1. Time commitment 2. Alignment with CNA competencies 3. Goals for: trainer, CNA, resident 3. Instructions for using the connection 4. Steps to practice and train 5. Discussion questions for practice 6. Tips for use 7. Options for modification
Developing Creative Care Plans as Person Centered Care	Instructions to mix, match, and master the variety of connections. Encouraging CNAs to personalize to the individual care recipient.