

# Simulation-Based Caregiving Skills Training and Psychoeducation Support for Caregivers of High-Grade Glioma Patients

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## Background

- Caregivers of patients with high-grade gliomas experience unique challenges as they manage patient symptoms, coordinate care, provide emotional support, and assist with activities of daily living
- Interventions focused on caregiving skills that integrate hands-on skills training with emotional coping strategies are needed
- Our purpose was to establish feasibility of a simulation-based skills training and psychoeducation support intervention for caregivers of patients with glioma**

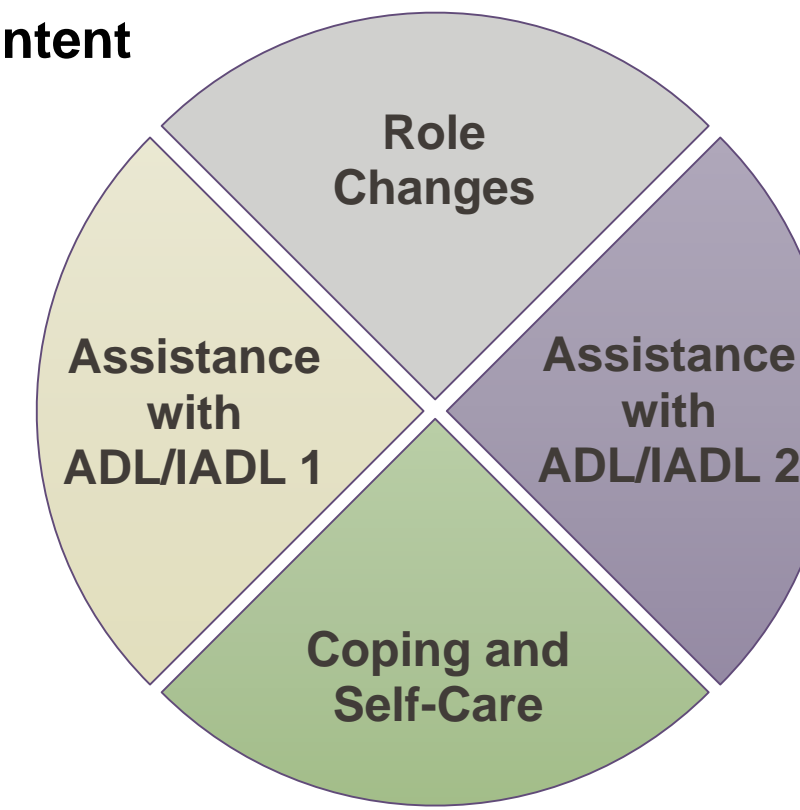
## Methods

- 10 caregivers participated in a 4-session, Registered Nurse-delivered intervention (Figure 1)
- Measures for Patients
  - Hospital Anxiety and Depression Scale (HADS)
  - MD Anderson Symptom Inventory-Brain Tumor (MDASI-BT)
- Measures for Caregivers
  - Hospital Anxiety and Depression Scale (HADS)
  - Caregiver Reaction Assessment (CRA)
  - Caregiver Self-Efficacy (CSE)

## Results

- 29 dyads approached; 10 dyads (34%) consented
- 7 dyads completed all 4 sessions
- 3 dyads were removed from the study following patient transition to hospice
- Patients had a mean age of 60.11 years; 89% were male
- All caregivers (mean age: 57.89 years, 80% female, 80% spouses) perceived benefit from the program (Figure 2)
- Patient symptom burden was mild at baseline (mean = 1.29, SD = 1.28)
- Caregiver anxiety was mild at baseline (mean = 7.71, SD = 2.98)
- Paired *t*-tests revealed a marginally statistically significant improvement in caregiver self-efficacy 6 weeks post-intervention; no other pre-post intervention comparisons were statistically significant (Table 1, Table 2)

Figure 1. Intervention Content



- Virtual Session 1: Role Changes**  
Identify areas of family life that have been disrupted; offer emotional support around changes in family roles and possible solutions for coping with roles
- In-person Session 2: Assistance with ADL and IADL 1**  
Practice ADL and IADL assistance (feeding, hygiene, bathing, toileting, transferring, mobility, medication administration, fall prevention, care coordination)
- In-person Session 3: Assistance with ADL and IADL 2**  
Practice successful ADL and IADL assistance
- Virtual Session 4: Coping and Self-Care**  
Support coping, identify barriers, activate social network, address emotions of guilt and anxiety, and maintain a sense of self in the new normal

	Baseline		6-week	
	Mean	SD	Mean	SD
<b>HADS</b>				
HADS-A	3.00	3.30	5.43	3.95
HADS-D	3.11	2.98	4.14	2.77
<b>MDASI-BT</b>				
Core	1.33	1.35	1.21	2.13
Module	1.03	0.96	1.70	1.59
Interference	1.50	1.73	2.19	2.55

	Baseline		6-week	
	Mean	SD	Mean	SD
<b>HADS</b>				
HADS-A	8.80	3.30	6.71	6.16
HADS-D	4.20	2.66	3.00	3.87
CSE	3.58	0.75	4.23*	0.44
<b>CRA</b>				
SE	4.40	0.39	4.43	0.34
LFS	1.94	0.68	2.31	1.34
IF	2.20	0.80	2.67	1.23
IS	3.32	0.47	3.31	0.85
IH	2.18	0.57	2.11	0.79

Figure 2. Intervention Participant Quotes

- "I appreciate the attention to addressing issues with the caregiver. It is a reminder to take time for yourself during this journey."  
*64-year-old female caring for spouse*
- "Everything went very well. This is all new to me so my knowledge of what to do is still limited. I look forward to the direction and help that can improve my care to my wife's needs now and in the future."  
*45-year-old male caring for spouse*
- "[Interventionist] was very helpful and did a great job of demonstrating skills I may need to help my spouse."  
*52-year-old male caring for spouse*
- "The instructor was very professional and willing to demonstrate how I can better prepare my home for the care of my wife. Looking forward to future trainings as her health care needs change."  
*45-year-old male caring for spouse*
- "It was helpful to be in a home setting."  
*40-year-old female caring for brother*
- "This class was very helpful to me as a caregiver to my husband. It showed me skills that may come in handy while dealing with a brain tumor patient. I also learned that I need to care for myself and that it's ok to take time for myself so I can be the best help to my husband."  
*67-year-old female caring for spouse*

## Conclusions

- This novel supportive care program appears to be safe, feasible, acceptable, and subjectively useful for patients with high-grade glioma and their caregivers
- Lack of improvement in symptoms post-intervention may be explained by mild levels of patient symptoms and caregiver distress at baseline
- A targeted sampling approach for those with elevated caregiver distress may be needed in the subsequent randomized controlled trial