White Paper

Duke Elder Family/Caregiver Training (DEFT) Program

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1. Executive Summary

1.1 Overview

In July 1, 2016, the DEFT program was developed as a result of a three-year funding (totalling $1.5M) from The Duke Endowment, a private foundation whose mission includes serving the people of North Carolina and South Carolina through support of selected programs. Aligned with this intent, the DEFT program aims to train and support family and friends (caregivers) who provide care and assistance to older adults for home-based living including after a hospital discharge.

1.2 Problem Description

Similar to the aging population in the United States, the number of older adults in North Carolina will rise dramatically. In 2018, approximately 1.6M North Carolinians (or about 16% of the State population) were 65 years and above. By 2025, this is projected to increase to 20% [1]. Older adults are susceptible to health decline. The risk for acquiring chronic diseases increases as one gets older [2-3]. Older adults also account for more than 35% of hospital admission in North Carolina [4]. Hospitalizations for older adults often result in debility that may easily threaten their ability to live independently at home.

Many older adults rely on their caregivers for care and support after their hospital discharge [5-6]. However, caregivers most often do not receive adequate training and support despite their supportive role in increasingly demanding and complex patient care at home. Consequently, many are ill-prepared for home caregiving [7-8] which may lead to preventable uses of health care services and hospital readmissions by patients. One in five older adults is readmitted within 30 days of their discharge [9], and the 30-day readmission rate increases to about 31% for those who are medically vulnerable and frail [10]. The lack of preparedness in home caregiving may lead to burden and stress among caregivers.

1.3 Potential Solution

Evidence suggests that programs that support older patients and their caregivers during the hospital to home transition are associated with a reduction in 30-day readmissions [11-12], decreased hospital length of stay [13], improved satisfaction and quality of life among patients and their caregivers [14]. Providing training before hospital discharge has also been found to promote confidence and preparedness in caregiving [15-16]. Improvement of caregiver knowledge, skills, and confidence in the care of their loved ones may reduce caregiver burden and stress [17-18].
2. The DEFT Program

2.1 Vision and Mission

At DEFT, we strongly believe that caregivers are essential partners in patient-centered care. Through DEFT, our vision is to ensure that all caregivers are supported in their commitment to care for their loved ones. Our mission is to develop and integrate processes and infrastructure during caregiver teachable moments, such as hospital to home discharge, whereby intentional attention, time, and efforts are dedicated to caregivers for training and support.

2.2 DEFT Caregiver Training and Support

The DEFT program for hospital to home discharge is illustrated above. The DEFT has been purposefully developed with the mindset of integration into existing hospital and health system practice and resources. Key elements of the program are:

- **Intentional focus on caregivers**
- Use of patient’s electronic medical record for consult orders and documentation
- Any hospital provider such as physicians, nurses, or case managers can enter caregiver consults
- Assessment with each caregiver to discover special needs and support before training is scheduled
- Group training of caregivers using evidence-based, standardized curriculum utilizing active learning strategies. Group training is
preferred over individual training to encourage social networking and support among caregivers.

- Training consists of review of critical information necessary for successful discharge. Technical skills (example is wound dressing) and practical skills (example is body mechanics) are also included.
- Follow-up calls after hospital discharge to reinforce key elements covered in the training, and to refer caregivers to community-based resources when needed

### 2.2 Results

Pilot implementation was conducted at Duke University Health System hospitals. Of 384 caregivers who agreed to participate in the DEFT training, more than half (n = 198) received the DEFT training. Since a large number of caregivers were employed, many would have participated if we offered the training on nights and weekends, or if the training could have been attended virtually.

<table>
<thead>
<tr>
<th>N-size</th>
<th>Percentage</th>
</tr>
</thead>
</table>
| Overall, how well did the class meet your expectations? | \begin{tabular}{ll}
Extremely Well & 30  \\
Very Well & 9  \\
Missing & 1  \\
\end{tabular} |
| The time of the class fit with my schedule. | \begin{tabular}{ll}
Strongly Agree & 26  \\
Agree & 14  \\
\end{tabular} |
| The day of the class fit with my schedule. | \begin{tabular}{ll}
Strongly Agree & 28  \\
Agree & 12  \\
\end{tabular} |
| The training I received today will help me as a caregiver. | \begin{tabular}{ll}
Strongly Agree & 32  \\
Agree & 8  \\
\end{tabular} |
| The training lasted the right amount of time. | \begin{tabular}{ll}
Strongly Agree & 28  \\
Agree & 11  \\
Neither Agree Nor Disagree & 1  \\
\end{tabular} |
| The DEFT staff were helpful and answered my questions. | \begin{tabular}{ll}
Strongly Agree & 35  \\
Agree & 5  \\
\end{tabular} |
| I felt that the training format supported sharing and participation. | \begin{tabular}{ll}
Strongly Agree & 32  \\
Agree & 8  \\
\end{tabular} |

With regards to caregiver satisfaction towards the DEFT training, caregivers overwhelmingly endorsed the training as convenient and helpful. They found the group format as conducive for sharing experiences in caregiving. Many thought that the one-hour duration was appropriate.

We measured the DEFT impact primarily on caregivers. We also evaluated the DEFT impact on 30-day readmission rates of patients. For caregivers, the level of preparedness in varied aspects of caregiving increased from beginning of DEFT to when they were discharged.
from DEFT. This was despite the high perceived level of preparedness at the baseline by most caregivers. Importantly, their perceived level of self care and satisfaction also increased after receiving DEFT services.

Many caregivers provided further feedback about the value of the DEFT program including a sense of security that someone will be checking on them after hospital discharge. Lastly, 30-day readmissions rate of patients with caregivers who completed the DEFT program was lower compared to that of patients whose caregivers were referred to DEFT but did not participate in the program (9.9% vs 19.5%).

“Your program has been very beneficial to both me and my daughter-in-law.”

“[I] feel much more confident in my my caregiving.”

“[T]here is a lot to learn, and it was great to also have the extra training and information that your program provides.”

3. DEFT Future Directions

3.1 Plan for Growth and Innovations

The DEFT program is poised to be a scalable caregiver training and support program that can be implemented by all hospitals and health systems. Our successful pilot implementation reveals that we have a model that works and can provide health care cost savings by reducing 30-day hospital readmissions. Importantly, it has resulted in favourable outcomes on caregivers. Our immediate plan is to share the DEFT model for integration by hospitals and health systems through workshops and consultations.

We plan to invest in resources and time to expand the DEFT model to offer training and support to caregivers in other settings and along other teachable moments for caregivers along the trajectory of chronic illness (see below). Our future activities and innovations will aim for wider reach and broader impact by testing efficacious processes and the use of technology.
3.2 Conclusion

As the number of older adults continue to rise in the coming years, there will be a parallel increase in the number of caregivers. Home-based living, a desire wanted by many, often requires a family member or a friend (caregiver) for support. Advancements in health care have transferred many care responsibilities traditionally performed by professionals such as nurses to caregivers of patients.

The DEFT program is designed to provide intentional attention and support to caregivers to complement patient care. Through its training and support, the DEFT empowers caregivers with knowledge and skills to assume their caregiving role with competence and preparedness. Better informed and supported caregivers will translate to better outcomes for caregivers and patients alike.
4. References


Appendix A: DEFT Teaching Areas: Standard Education

Caregiver Teaching: Contents

- Welcome!
  - Demographics Form
  - Readiness & Preparedness Survey
  - What’s in My Folder?
  - Safe Space
- Review After Visit Summary (AVS)
  - Managing Medications
  - Follow-up Appointments
  - Who to Call & When
- Recovery at Home
  - Nutrition & Fluids
  - Mobility & Activity
  - Recognizing Delirium
  - Fall Prevention
  - Other areas – individual areas of concern
- Caregiver Care & Community Connection
  - Who is Taking Care of You?
    - Body mechanics
  - What Resources are Available for You?
- DEFT Follow-Up: What Happens Next?
- Evaluation Survey

Thank you for attending and completing the survey!