

Benefits of Respite for Carers' Health: Findings from the DaSH Study

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 - ▶ The DaSH Research team

Benefits of Respite for Carers' Health

- ▶ Types of respite
 - ▶ Adult day care
 - ▶ In-home
 - ▶ Overnight
- ▶ Focus in talk on respite for carers of persons with dementia

Benefits of Respite for Carer's Health

- ▶ Care-related stress leads to declines in health and well-being
- ▶ From the earliest writings on carers, an emphasis on the need for respite
- ▶ Respite is a sustainable intervention
- ▶ Little systematic research on respite
 - The belief that respite is just compassionate and has no real effect

The Daily Stress and Health of Caregivers (DaSH) Study

Caregivers are exposed to care-related stressors about 140 min./day

DAILY STRESSORS

ADS Use lowers daily stress exposure by 43%

STRESS HORMONES
:
CORTISOL, DHEA-S

Emotions
(depression, anger, positive feelings)

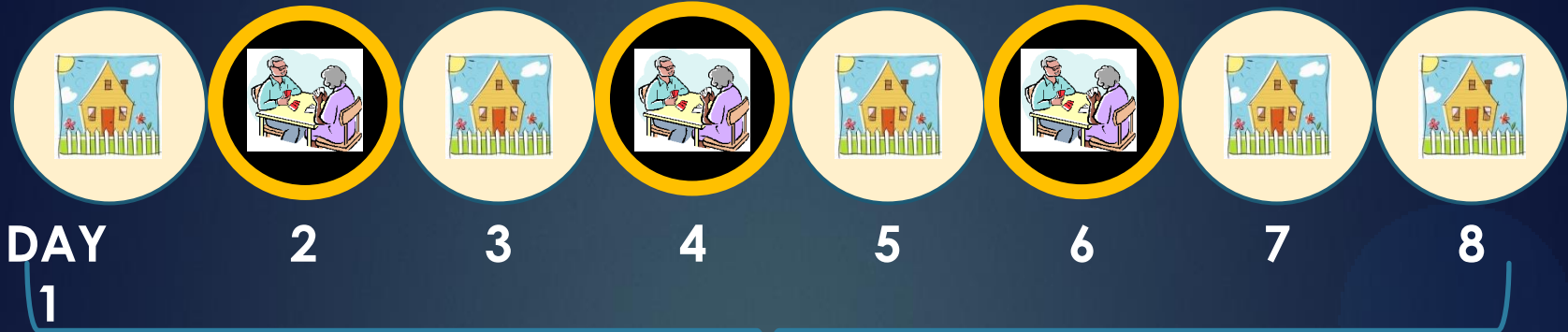
Health



DaSH Sample

- ▶ 194 carers of persons with dementia
- ▶ Living in the same household
- ▶ Using adult day care at least 2 times a week

How We Conducted the DaSH Study



Phone interviews for 8 consecutive days

- Some of the days caregivers used ADS
- Some of the days they did not use ADS (non-ADS days)
- Measures: Daily stressors; daily affect

5 saliva samples each day

- ① Before getting out of bed
- ② 30 min after getting out of bed
- ③ Before lunch
- ④ Late afternoon (~ time when relative returns from ADS)
- ⑤ Bedtime

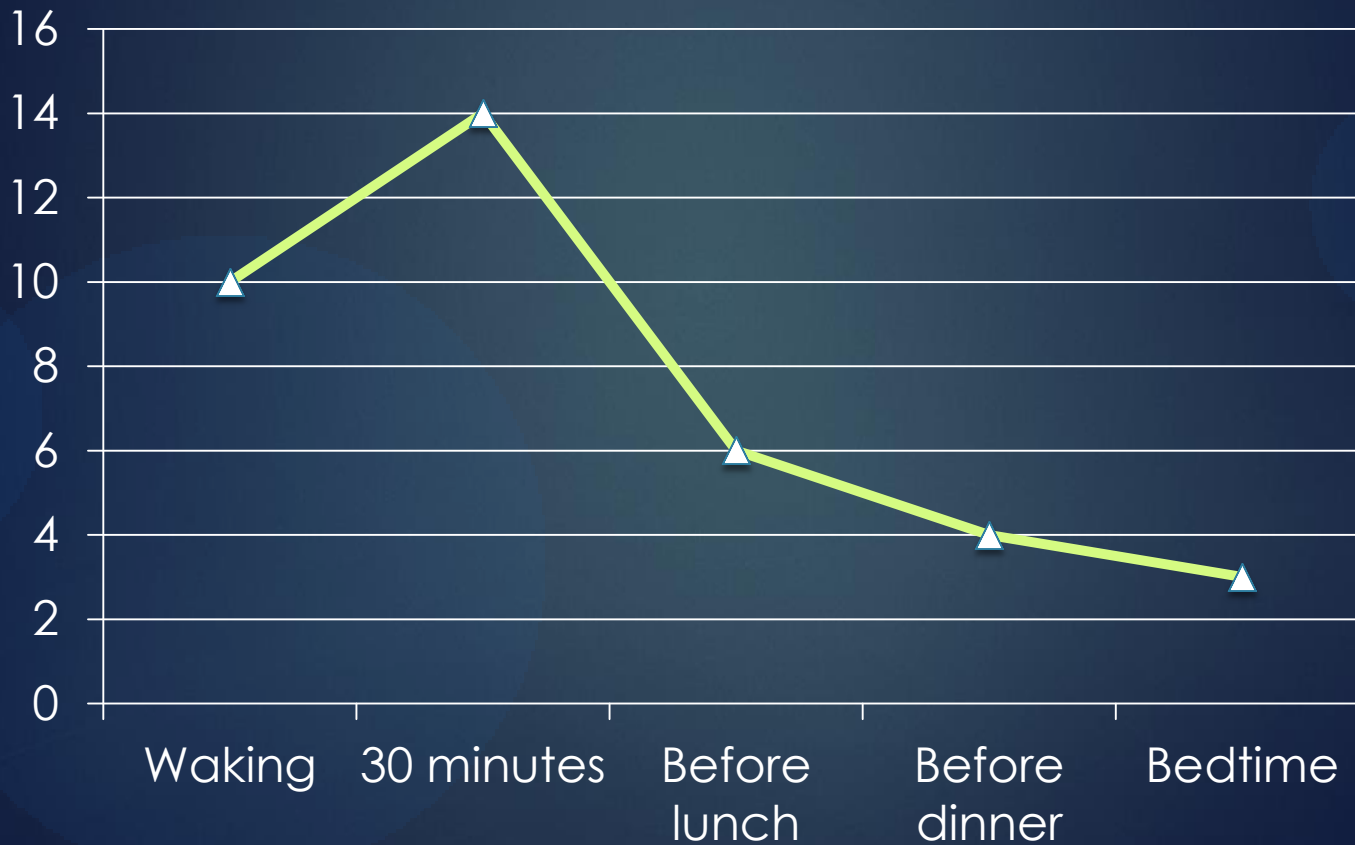
DaSH Sample

- A total of 194 cares recruited and eligible
- 182 (94%) participants completed daily interviews
- 173 (89%) had complete and valid saliva samples
- <4% missing saliva samples (of 6,600 samples!)

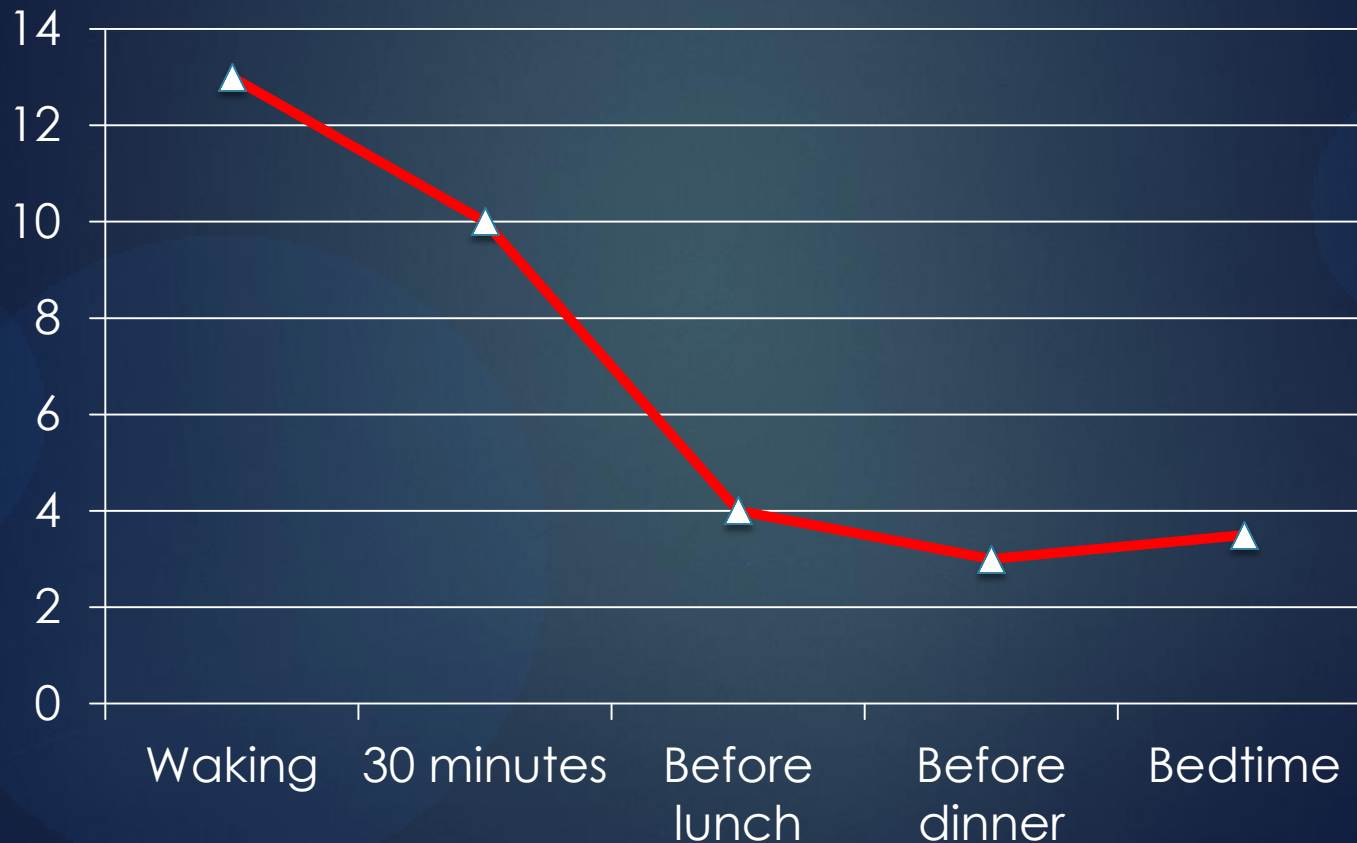
Cortisol Responses to Stressors

- Cortisol is involved in regulation of glucose metabolism, blood pressure, inflammatory and immune responses
- Acute stressors results in short-term HPA axis activation (i.e., cortisol elevation)
- Repeated or prolonged activation (e.g., caregiving) leads to dysregulation of cortisol
 - a. Cortisol overproduction
 - b. **Blunted diurnal salivary cortisol rhythm**
- Cortisol dysregulation is associated with depression, problems with learning & memory, inadequate immune system activation; chronic health problems

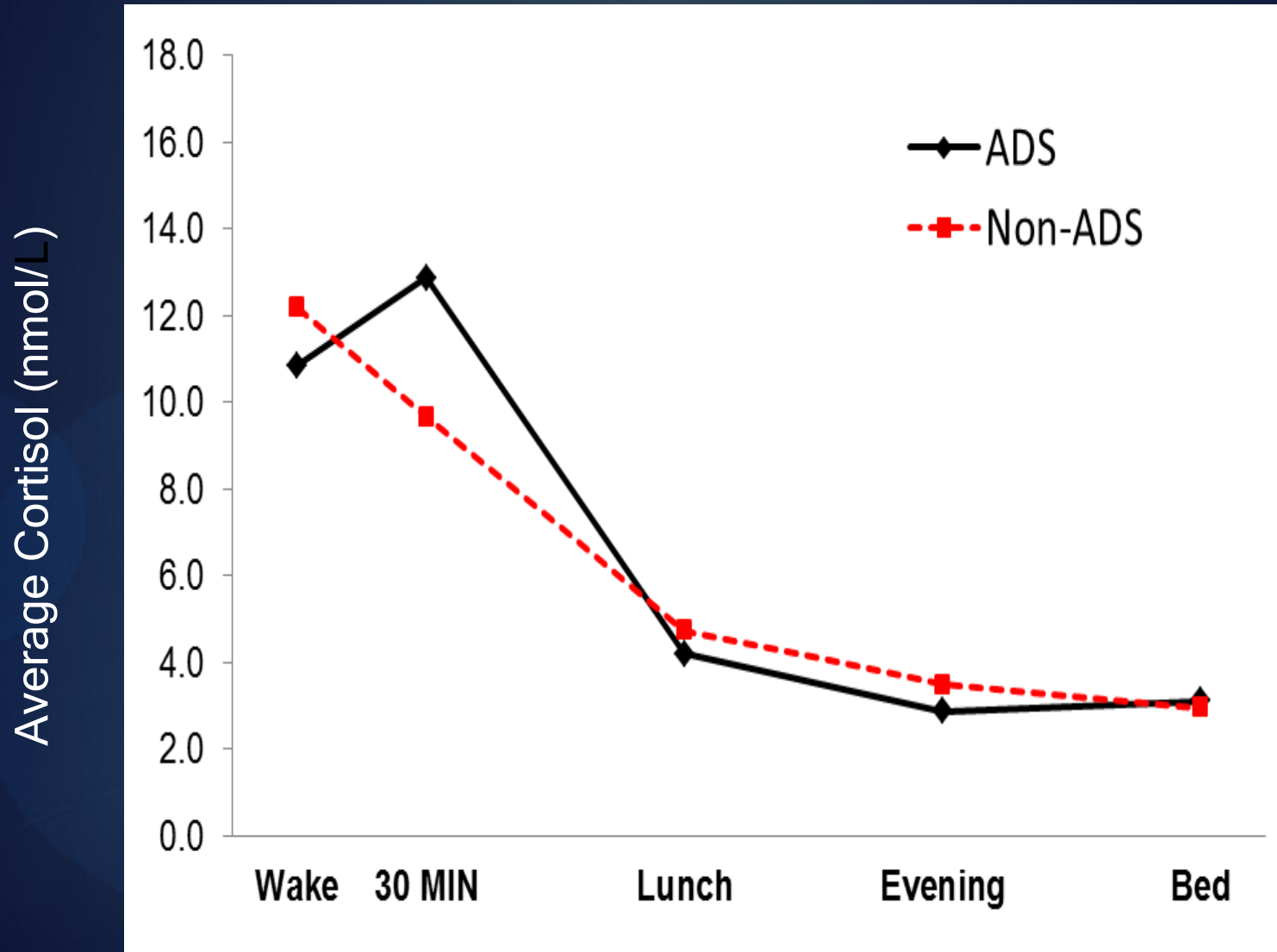
A Typical (non-stress) Cortisol Pattern



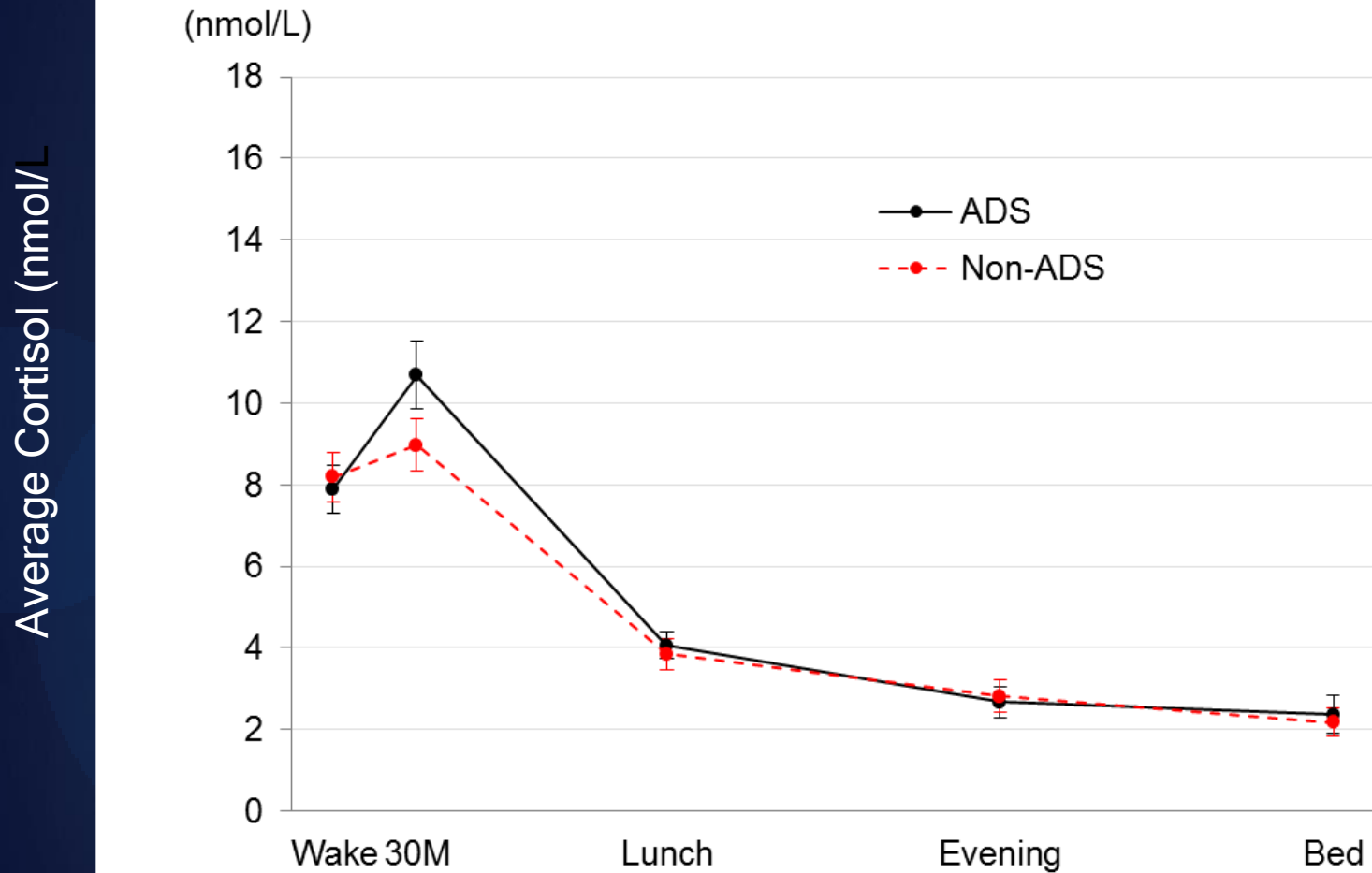
Attenuated cortisol of carers on non-day care days (low morning quartile)



Cortisol on Day Care (ADS) and Non-day Care Days: Low Morning Rise Group



Cortisol on ADS and non-ADS days: Medium Low Morning Rise Quartile



Implications of Changes in Daily Cortisol

- ▶ This is the first demonstration where an attenuated high risk patterns of daily cortisol has been modified
- ▶ On day care days, normal cortisol patterns lower the risk for illness
- ▶ More days of day care use mean lower risk of illness

DHEA-S Response to Stressors

- More DHEA-S is better
- Positive benefits of DHEA-S
 - Increases positive emotions and decreases depression
 - Lowers risk of cardiovascular disease
 - May protect against damage of brain neurons leading to Alzheimer's disease
 - Lowers risk of mortality
- Chronic stress and aging attenuates the DHEA-S response

Effects of Adult Day Care on DHEA-S

- There was no “same day” effect of adult day care on DHEA-S
- On the day after adult day care use, DHEA-S increased
- Positive affect was also higher on these days
- Improved levels of DHEA-S reduce the risk for illness
- This is the first demonstration of non-pharmacological modification of DHEA-S

Zarit et al. 2014. American J of Geriatric Psychiatry

Other Findings from DaSH

- Carers had lower feelings of anger on day care days compared to non-day care days
- Adult day care use buffered the effects of stressors on depression
- Carers who used more days of adult day care had less emotional lability from day to day
- A third stress biomarker, alpha amylase, also showed a lagged effect on days following adult day care use (unpublished)

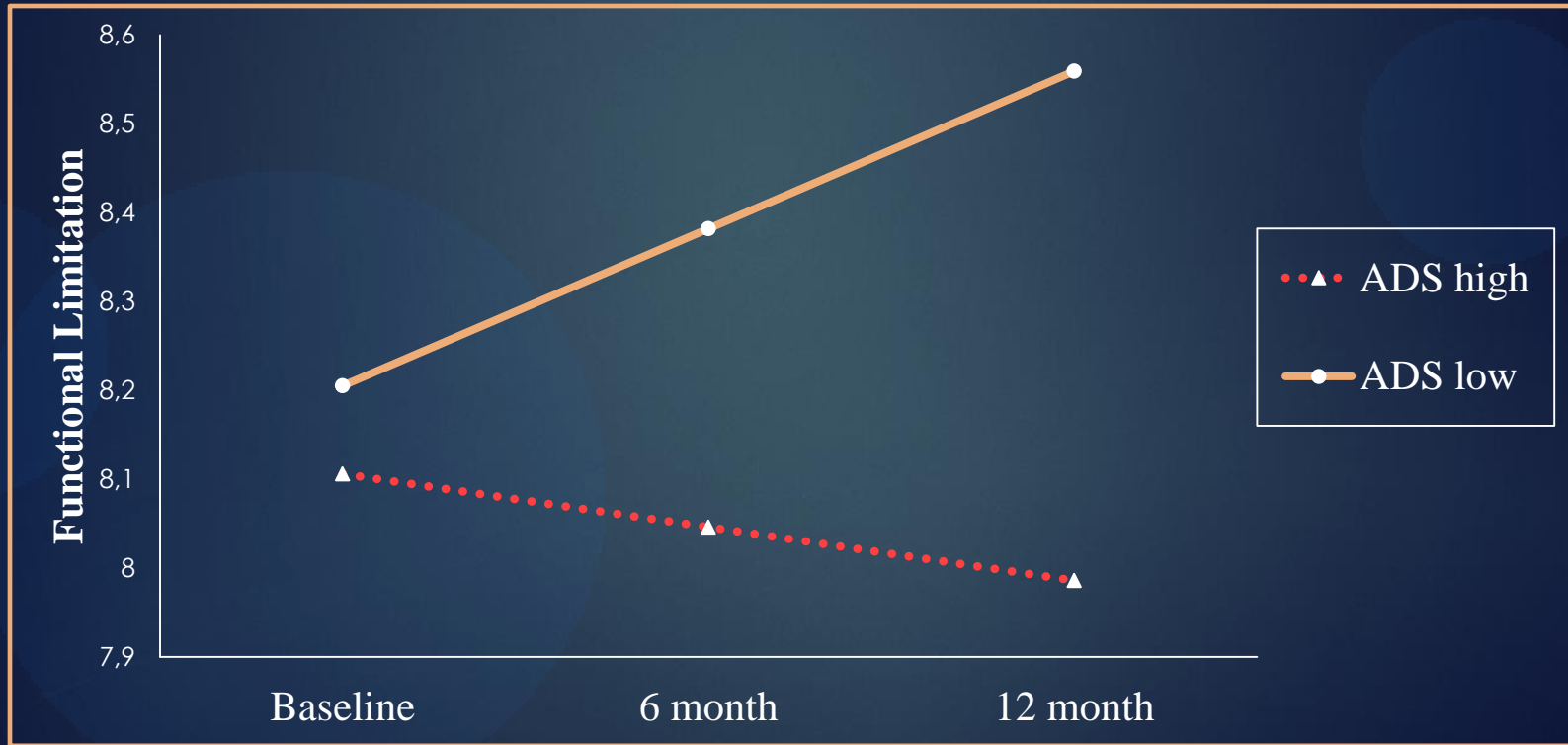
Zarit et al., 2014, Gerontologist

Liu et al., 2015 Health Psychology

One Year Outcomes on Health

- Carers who used more days of ADS were more likely to be stable in functional health over one year
- Caregivers using fewer days of ADS were more likely to decline in functional health

Functional Limitations and Adult Day Care (ADS) Use over 12 Months



Significance of the Findings

- ▶ Improved levels of cortisol and DHEA-S lower risk of illness
- ▶ Improvements in affect reduce the risk of illness
- ▶ Reduced risk is dose specific—more days of adult day care use → lower risk
- ▶ Benefits can be sustained across the carer's career
- ▶ Other respite interventions may have similar benefits for reducing stress-related health risks

Other Important Issues

- ▶ Helping families understand how to use adult day care and other forms of respite
- ▶ Adapting adult day care to a social and cultural context
- ▶ What are the effects of respite on persons with dementia?
 - ▶ Is respite person-centered care?

Conclusions

- Respite is not just a compassionate gesture. It has immediate, measurable health benefits for carers
- Adult day care is a sustainable intervention for chronic conditions such as dementia
- The importance of building bridges of understanding about respite with carers