



Are Existing Measurement Tools Accurately Measuring Health-Related Quality of Life of Informal Caregivers?



Anna Richards Fleur Chandler **Jill Carlton**

Alice Biggane



Disclosures

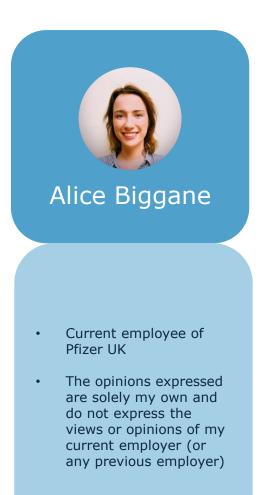


Fleur Chandler

- Parent of young adult with Duchenne Muscular Dystrophy
- Health Economist and Market Access Specialist
- Previously Head of Global Health Outcomes at GSK and Head of Market Access UK Ireland at Sanofi
- Parent Advisory Board Member Duchenne UK
- ISPOR Task Force on Paediatric Quality of Life
- Chair of Project
 HERCULES
- Stockholder in GSK, Haleon, Sanofi



 The opinions expressed are solely my own and do not express the views or opinions of my current employer (or any previous employer)





Issue being discussed

- As demands upon healthcare resources increase, informal caregiving has gained greater consideration in determining the impact of health conditions.
- Informal caregiving varies significantly across different health conditions

Three key areas of debate will be discussed:

conceptualising informal caregiver HRQoL for use within economic models



measurement of informal caregiver HRQoL

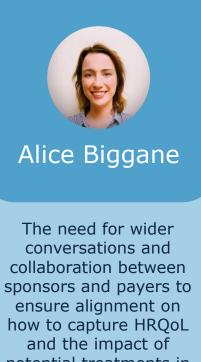
3 valuation and incorporation of informal caregiver HRQoL in economic evaluations



Overview







sponsors and payers to ensure alignment on how to capture HRQoL and the impact of potential treatments in HTA and costeffectiveness analyses, without leaving value behind.



Exploring the lived experiences and variability of being a caregiver





Parent Caregiver Perspective

- My son Dom was diagnosed at 3 years old with Duchenne Muscular Dystrophy
- Progressive and fatal muscle wasting disease
- Constantly changing and worsening needs
- Impact on HRQOL is immense and far reaching at every stage
- Needs to be better recognised and represented in HTA



Impact on Caregivers

Improving healthcare decisions



Measurement of informal caregiver HRQoL







• Studies are using lots of PROs



Study	Condition	Measures
Algadeeb et al, 2024	ADHD	WHOQOL-BREF ZBI
Andres et al, 2024	Dementia	HADS
Bourissi et al, 2024	Cancer	SF-12
Ferrero-Sereno et al, 2024	Alzheimer's Disease	EQ-5D-3L Zarit caregiver burden scale Subjective Happiness Scale (SHS) Satisfaction with Life Scale (SWLS)
de Oliveira Tavares , 2024	Care-dependent patients	WHOQOL-BREF
Remor et al, 2024	Phenylketonuria	Phenylketonuria - Quality of Life (PKU-QoL) SF-36 TNO-AZL Questionnaire for Adult's Health-Related Quality of Life (TAAQOL) WHOQOL-100 WHOQOL-BREF Child Health Questionnaire - Children and Parent Form (CHQ-PF 50)



Instrument	Ν	Instrument	N	Instrument	Ν
Acceptance of Illness Scale	2	Existential Well-Being Subscale from the McGill Quality of Life Questionnaire	1	Rand 36-Item Health Survey	1
Beck Depression Inventory	3	Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being Scale	1	Self-Rating Anxiety Scale	1
Beck Hopelessness Scale	1	The Duke-UNC Functional Social Support Questionnaire	1	Self-Rating Depression Scale	6
Coping Orientation to Problems Experienced Inventory	2	General Health Questionnaire	1	Short Form-12	3
Burden Scale for Family Caregivers	1	Hospital Anxiety & Depression Scale	27	Short Form-36	9
Carer Quality of Life	1	Life Satisfaction Checklist	1	Short Form-36 Mental Component Summary	1
Caregiver Burden Inventory	13	Metacognitive Questionnaire 30	1	Short Form-36 Version 2	2
Center for Epidemiology Studies Depression Scale	1	Multidimensional Scale of Perceived Social Support	2	State-Trait Anxiety Inventory-X	1
Chalder Fatigue Scale	1	McGill Quality of Life Questionnaire	10	State-Trait Anxiety Inventory-Y1	4
Chalder Fatigue Scale - Physical Fatigue Subscale	1	Positive and Negative Affect Schedule	1	State-Trait Anxiety Inventory-Y	2
Caregiver Network Scale	1	Patient Health Questionnaire-9	1	Satisfaction With Life Scale	2
Close Persons Questionnaire	1	Profile of Mood States - Short Form	1	World Health Organisation quality of life-BREF	5
Caregiver Strain Index	10	QoL Enjoyment & Satisfaction Questionnaire Short Form	1	Zarit Burden Interview	33
Dyadic Adjustment Scale - Dyadic Subscale	1	Quality of Life in Life-Threatening Illness Family Carer Version	4		
EuroQoL-5 Dimensions	3	Quality of Life at the End of Life	1		





- Studies are using lots of PROs
 - Makes comparison across studies difficult







- Studies are using lots of PROs
 - Makes comparison across studies difficult
- Limited evidence to support their use



Content validity

- Current guidelines advocate
 - Relevance
 - Comprehensibility
 - Comprehensiveness
- Evidence is required to support use of any instrument
- Legacy measures can fair badly
- Does NOT necessarily mean they are not fit-for-purpose









- Studies are using lots of PROs
 - Makes comparison across studies difficult
- Limited evidence to support their use
 - Content validity







A REAL PROPERTY OF THE REAL PR



- Studies are using lots of PROs
 - Makes comparison across studies difficult
- Limited evidence to support their use
 - Content validity
 - Psychometric properties



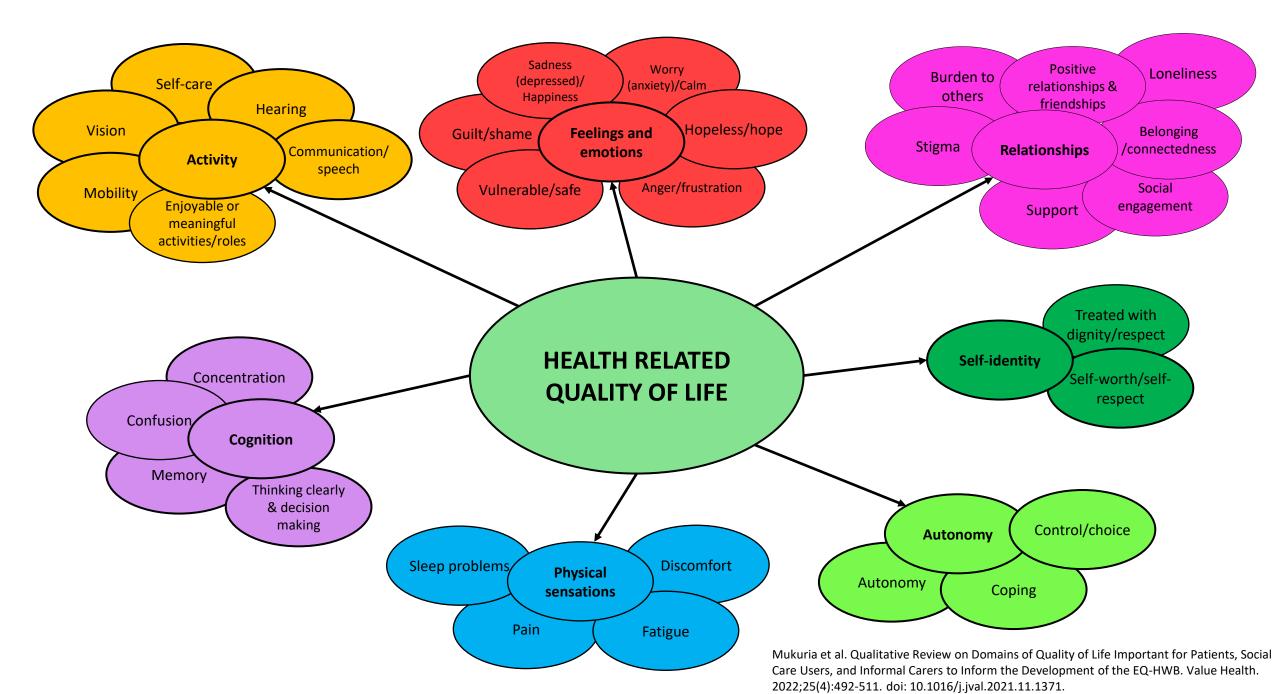


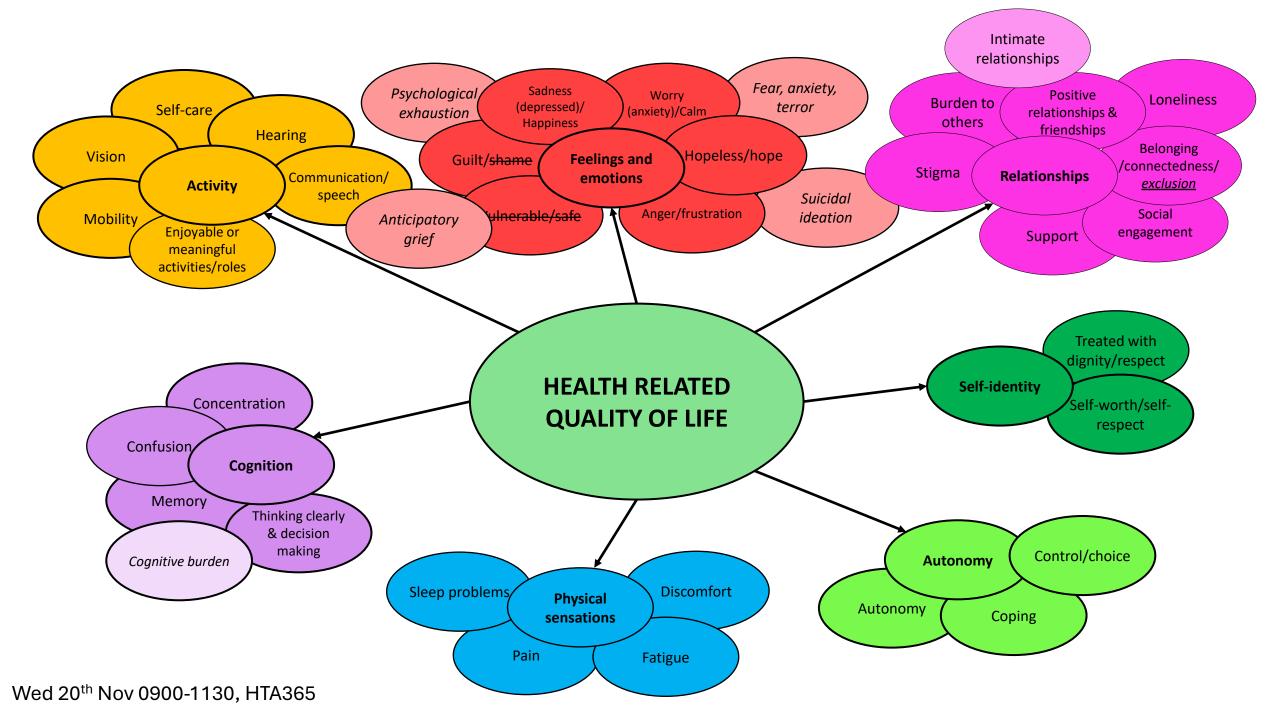






- Studies are using lots of PROs
 - Makes comparison across studies difficult
- Limited evidence to support their use
 - Content validity
 - Psychometric properties
- Measuring what matters?







Acceptability

Questions

- Too many respondent burden
- Compromise with comprehensiveness
- Too personal missing data, low response rate
- Who?
- What?
- When?
- Where?
- How?









Should we care about who the care is for?





Caring for a partner



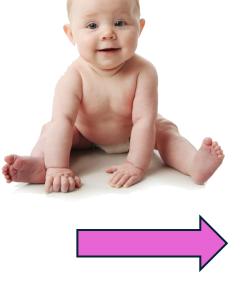




Caring for a partner



















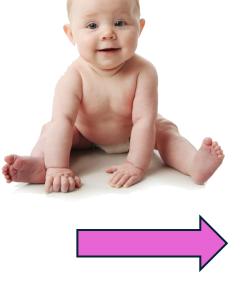
















































Summary

- Measuring the impact of being an informal carer is complex
- Differences exist across different characteristics (e.g., gender, sociodemographics, etc.)
- Caregiver burden and caregiver HRQoL are NOT the same BUT they are linked
- A generic approach to measurement work may not work
 - Akin to rationale for disease-specific measures
- Does society view caring differently if it is:
 - Caring for an adult with a progressive, life-limiting condition? (e.g., MND)
 - Caring for a child with a progressive, life-limiting condition? (e.g., DMD)



Incorporating caregiver HRQoL in HTA submissions



Declarations



- Current employee of Pfizer UK
- The opinions expressed are solely my own and do not express the views or opinions of my current employer (or any previous employer)

Setting the scene

 Long-established relationship between the health/wellbeing of carers, the health of the patient they care for, and the volume of care provided





Setting the scene

- Long-established relationship between the health/wellbeing of carers, the health of the patient they care for, and the volume of care provided
- Caregiver health/ wellbeing can be impacted by emerging new health technologies





Setting the scene

- Long-established relationship between the health/wellbeing of carers, the health of the patient they care for, and the volume of care provided
- Caregiver health/ wellbeing can be impacted by emerging new health technologies
- Caregiver inclusion in economic evaluations of new health technologies is an increasingly important consideration

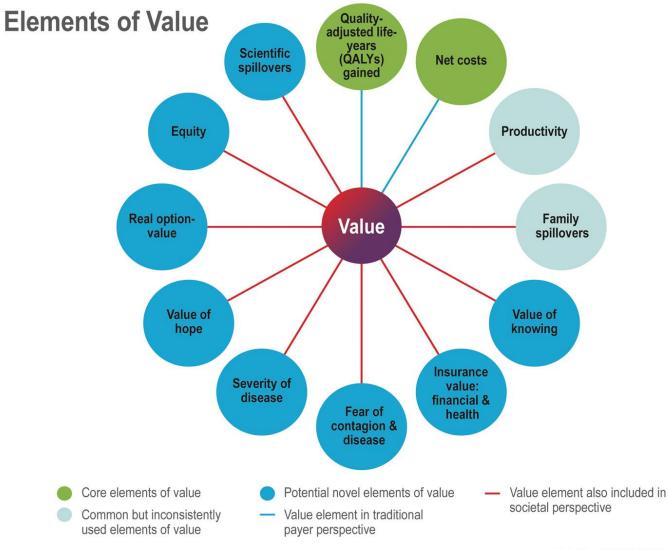






Improving healthcare decisions





Adopted from ISPOR STF (2018)



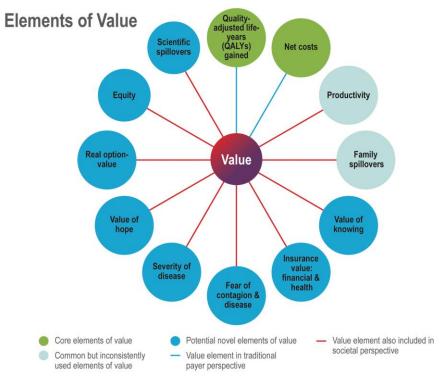
PharmacoEconomics (2024) 42:343-362 https://doi.org/10.1007/s40273-023-01321-3

ORIGINAL RESEARCH ARTICLE



Recommendations for Emerging Good Practice and Future Research in Relation to Family and Caregiver Health Spillovers in Health Economic Evaluations: A Report of the SHEER Task Force

Edward Henry¹ + Hareth Al-Janabi² · Werner Brouwer³ · John Cullinan¹ · Lidia Engel⁴ · Susan Griffin⁵ · Claire Hulme⁶ · Pritaporn Kingkaew⁷ · Andrew Lloyd⁸ · Nalin Payakachat⁹ · Becky Pennington¹⁰ · Luz María Peña-Longobardo¹¹ · Lisa A. Prosser¹² · Koonal Shah¹³ · Wendy J. Ungar¹⁴ · Thomas Wilkinson¹⁵ · Eve Wittenberg¹⁶





PharmacoEconomics (2024) 42:343-362 https://doi.org/10.1007/s40273-023-01321-3

ORIGINAL RESEARCH ARTICLE

Recommendations for Emerging Good Practice and Future Research in Relation to Family and Caregiver Health Spillovers in Health Economic Evaluations: A Report of the SHEER Task Force

Edward Henry¹ + Hareth Al-Janabi² · Werner Brouwer³ · John Cullinan¹ · Lidia Engel⁴ · Susan Griffin⁵ · Claire Hulme⁶ · Pritaporn Kingkaew⁷ · Andrew Lloyd⁸ · Nalin Payakachat⁹ · Becky Pennington¹⁰ · Luz María Peña-Longobardo¹¹ · Lisa A. Prosser¹² · Koonal Shah¹³ · Wendy J. Ungar¹⁴ · Thomas Wilkinson¹⁵ · Eve Wittenberg¹⁶

HAS

HAUTE AUTORITÉ DE SANTÉ



Canada's Drug Agency L'Agence des médicaments du Canada Drugs. Health Technologies and Systems. Médicaments, technologies de la santé et systèmes.

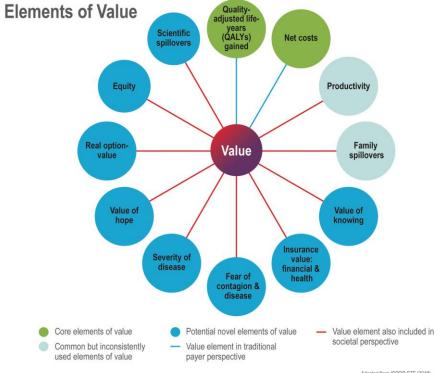


Health Information and Quality Authority An tÚdarás Um Fhaisnéis agus Cáilíocht Sláinte



Zorginstituut Nederland





Adopted from ISPOR STF (2018



Recommendations to include caregiver HRQOL exist

 including from the HTA bodies themselves!





- Recommendations to include caregiver HRQOL exist

 including from the HTA bodies themselves!
- BUT very little methodological direction is provided
 who, where, what, when, why and how?





- Recommendations to include caregiver HRQOL exist

 including from the HTA bodies themselves!
- BUT very little methodological direction is provided
 who, where, what, when, why and how?
- Very few technology appraisals include caregiver HRQOL in cost utility analyses
 - what are the reasons? what are the implications?





- Recommendations to include caregiver HRQOL exist

 including from the HTA bodies themselves!
- BUT very little methodological direction is provided
 who, where, what, when, why and how?
- Very few technology appraisals include caregiver HRQOL in cost utility analyses
 - what are the reasons? what are the implications?
- Opportunity to collaborate and innovate?





"As with any emerging field, there is a need to define new methods"

Prosser et al. 2019



Improving healthcare decisions

Prosser et al. 2019 "As with any emerging field, there is a need to define new methods"

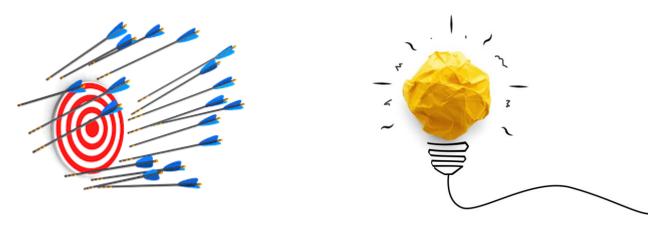


Lack of consistency in current approaches



Improving healthcare decisions

Prosser et al. 2019 "As with any emerging field, there is a need to define new methods"



Lack of consistency in current approaches

Need to think big (and wide)



Prosser et al. 2019 "As with any emerging field, there is a need to define new methods"





Lack of consistency in current approaches





Need to think big (and wide)

Collaboration is key



Summary

- A growing consensus
 - This is an important topic
- Lots to figure out
 - 6Ws
- Lessons learned from the past
 - What can we use?
 - What can we improve?
- Innovate for the future
 - Think big and wide
- Work together
 - Equal, multistakeholder environment





Improving healthcare decisions





References



- Algadeeb J, AlSaleh EM, AlGadeeb RB, Alkhoufi HAS, Alsaad AJ. Assessment of the Quality of Life and Family Function in Attention Deficit Hyperactivity Disorder Caregivers in Al-Ahsa, Saudi Arabia. *Cureus*. 2024 Sep 25;16(9):e70161. doi: 10.7759/cureus.70161.
- Andres EB, Chaudhry I, Balasubramanian I, Poco L, Yap P, Malhotra C; PISCES study group. Navigating dementia feeding decisions in Asia: a mixed methods study of caregivers. *Age Ageing*. 2024 Oct 1;53(10):afae232. doi: 10.1093/ageing/afae232.
- Bourissi H, Bourkhime H, El Rhazi K, Mellas S. Exploring Factors Influencing the Physical and Mental Quality of Life of Caregivers of Cancer Patients: A Cross-Sectional Study at Hassan II University Hospital Center. *Cureus*. 2024 Sep 24;16(9):e70074. doi: 10.7759/cureus.70074.
- Ferrero-Sereno P, Palomo-López P, Mendoza-Muñoz M, Carlos-Vivas J, Urbano-Mairena J, Muñoz-Bermejo L. Role of Overload and Psychoemotional Variables on Health-Related Quality of Life in Informal Caregivers of People with Alzheimer's Disease. J Clin Med. 2024 Oct 17;13(20):6188. doi: 10.3390/jcm13206188.
- Henry E, Al-Janabi H, Brouwer W, Cullinan J, Engel L, Griffin S, Hulme C, Kingkaew P, Lloyd A, Payakachat N, Pennington B. Recommendations for emerging good practice and future research in relation to family and caregiver health spillovers in health economic evaluations: a report of the SHEER Task Force. *PharmacoEconomics*. 2024 Mar;42(3):343-62. doi: 10.1007/s40273-023-01321-3.
- Lakdawalla DN, Doshi JA, Garrison Jr LP, Phelps CE, Basu A, Danzon PM. Defining elements of value in health care—a health economics approach: an ISPOR Special Task Force report [3]. *Value in health*. 2018 Feb 1;21(2):131-9. doi: 10.1016/j.jval.2017.12.007
- Mukuria C, Connell J, Carlton J, Peasgood T, Scope A, Clowes M, Rand S, Jones K, Brazier J. Qualitative Review on Domains of Quality of Life Important for Patients, Social Care Users, and Informal Carers to Inform the Development of the EQ-HWB. Value Health. 2022;25(4):492-511. doi: 10.1016/j.jval.2021.11.1371.
- de Oliveira Tavares ML, Pimenta AM, García-Vivar C, Beinner MA, Montenegro LC. Determinants of quality of life decrease in family caregivers of care-dependent patients: a longitudinal study. *Qual Life Res.* 2024 Oct 19. doi: 10.1007/s11136-024-03814-w.
- Prosser LA, Wittenberg E. Advances in methods and novel applications for measuring family spillover effects of illness. *PharmacoEconomics*. 2019 Apr 1;37:447-50. doi: 10.1007/s40273-019-00794-5
- Remor E, Gabe KM, Teruya KI, Doederlein Schwartz IV. What is known about patients' quality of life with Phenylketonuria and their caregivers? A scoping review. *Orphanet J Rare Dis*. 2024 Oct 28;19(1):402. doi: 10.1186/s13023-024-03422-4.