

Caregiver Burden of Parents of Children with Haemophilia - Results form a Single UK Centre

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Introduction

- The standard treatment of boys with haemophilia in the UK is prophylaxis, where treatment commences following the first bleeding episode aiming to establish 'full' prophylaxis with a measurable trough as soon as venous access allows [1]. Parents of a child with haemophilia require specific skills such as bleed recognition and treatment administration [2].
- Caregivers' often face limitations in their life leading to perceived burden. This burden of disease management can lead to psychological (stress and coping [3], anxiety and depression, stigmatization and discrimination [4]) as well as economical concerns for the parents [5]. How this treatment burden of parenting a child with haemophilia impacts on caregivers quality of life is not yet examined. It is expected that being a parent of a child with haemophilia will influence their quality of life mostly because they will worry and have fears related to the well-being of their child.
- This single centre study describes caregivers' burden and investigates how caregivers' burden affects parents' health-related quality of life (HRQoL).
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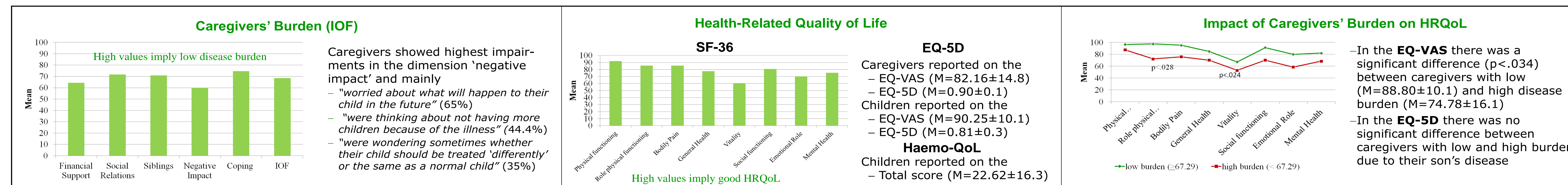
Methods

- Caregivers of children aged 8-17 years with haemophilia A or B of any severity, with current or past inhibitor were included in the study.
- Questionnaires for caregivers comprised demographic data, self-reported generic HRQoL (EQ-5D [6], SF-36 [7]) and caregiver burden (IOF: Impact on Family Scale [8]) instruments.
- Children were asked about their HRQoL (EQ-5D-Y [9], Haemo-QoL short version [10]).
- Consecutive parent/child dyads were approached at routine clinical reviews; 20 dyads participated in the study.

Results

- 75% of caregivers were mothers with a mean age of 39.8±6.2 years (range 28-52), 25% were fathers with a mean age of 44.22±7.4 years (range 34-62). Children had a mean age of 11.6±2.4 years (range 8-17).
- 95% of caregivers were working part- or full-time; 40% of those working part-time were doing so because they were taking care of their haemophilic child.
- The majority reported that haemophilia causes an economic impact on the family (55%).

- 16 boys had haemophilia A (80%), 4 had haemophilia B (20%)
- 12 boys had severe haemophilia (60%), 4 moderate (20%) and 4 mild (20%)
- 16 boys were treated with prophylaxis with various dosing regimens (9 boys were on primary prophylaxis)
- 17 were on home treatment (85%) and 8 usually self-infused (40%)
- 5 boys had had an inhibitor; 1 was still on daily immune tolerance and had a central venous access device in situ
- Children had an average 0.3±0.6 bleeds (range 0-2) in the previous 3 months



Conclusion

More significant differences were found between caregivers who reported that haemophilia has an economic impact on the family; there showed differences in their perceived burden in the domains 'financial support' (p<.008), 'social relationships' (p<.042) and 'the total IOF score' (p<.033) and in their HRQoL in the social domains of the SF-36 'social functioning' (p<.002), 'emotional role' (p<.043) and 'mental health' (p<.009) as well as for the PSC summary score (p<.027).

Perceived burden of haemophilia has a direct impact on caregivers HRQoL. Further studies with haemophilia-specific instruments are needed to verify these findings.

References

- Richards M, Williams M, Chalmers E, Liesner R, Collins P, Vidler V, Hanley J; Paediatric Working Party of the United Kingdom Haemophilia Doctors' Organisation. A United Kingdom Haemophilia Centre Doctors' Organization guideline approved by the British Committee for Standards in Haematology: guideline on the use of prophylactic factor VIII concentrate in children and adults with severe haemophilia A. *Br J Haematol*. 2010; **149**(4):498-507.
- Vidler V. Teaching parents advanced clinical skills. *Haemophilia*. 1999; **5**(5):349-53.
- Torres-Ortuno A, Cuesta-Barriuso R, Nieto-Munuera J. Parents of children with haemophilia at an early age: assessment of perceived stress and family functioning. *Haemophilia* 2014; **20**: 756-762.
- Weidebusch S, Pollman H, Siegmund B, Muthny F. Quality of life, psychosocial strains and coping in parents of children with haemophilia. *Haemophilia* 2008; **14**(5):1014-1022.
- von Mackensen, S & Gringeri A. Quality of Life in Haemophilia. In Preedy, VR & Watson RR(eds). Handbook of disease burdens and Quality of Life measure. Springer, Heidelberg, 2009, Vol 3, Chapter 12: 1895-1920.
- Szende, Oppe, Devlin (eds.) EQ-5D Value Sets: Inventory, Comparative Review and User Guide. Springer, 2010, Dordrecht, The Netherlands.
- Ware J Jr, Kosinski M, Keller SD. SF-36 Physical and Mental Health Summary Scales: A User's Manual. Boston, Massachusetts: The Health Institute, 1994.
- Stein RE, Riessman CK The development of an impact-on-family scale: preliminary findings. *MedCare*. 1980; **18**(4):465-72.
- Ravens-Sieberer U, Wille N, Badia X, Bonsel G, Burström K, Cavrini G, Devlin N, Egmar AC, Gusi N, Herdman M, Jelsma J, Kind P, Olivares PR, Scalone L, Greiner W. (2010). Feasibility, reliability, and validity of the EQ-5D-Y: results from a multinational study. *Quality of Life Research* 2010; **19**(6):875-86.
- von Mackensen S, Bullinger M for The Haemo-QoL group. Development and testing of an instrument to assess the quality of life of children with haemophilia in Europe. *Haemophilia* 2004, **10** (Suppl. 1): 17-25.

