

Marcin J. Jabłoński¹ , Francisco Garcia-Torres², Paulina Zielińska³, Alicja Bułat³, Piotr Brandys³, Marzena Samardakiewicz⁴

¹Institute of Health Sciences, Collegium Medicum of Jan Kochanowski University in Kielce, Kielce, Poland

²Department of Psychology, Maimónides Biomedical Research Institute of Córdoba, Reina Sofía University Hospital of Córdoba, University of Córdoba, Córdoba, Spain

³Maria Skłodowska-Curie National Research Institute of Oncology, Krakow Branch, Krakow

⁴Chair and Department of Psychology, Medical University of Lublin, Lublin, Poland

The usefulness of the QualityMetric Health Outcomes™ Scoring Software 5.0 for predicting the risk of depression in male partners of cancer patients

Address for correspondence:

Prof. Marcin J. Jablonski, M.D., PhD
 Institute of Health Sciences,
 Collegium Medicum of Jan Kochanowski
 University in Kielce, Kielce, Poland
 e-mail: marcin.jablonski@ujk.edu.pl

Oncology in Clinical Practice
 DOI: 10.5603/OCP.2022.0021
 Copyright © 2022 Via Medica
 ISSN 2450–1654
 e-ISSN 2450–6478

ABSTRACT

Emotional problems and the quality of life of men, caregivers of women with cancer, are not widely discussed in the specialist literature. The presented research focuses on the quality of life and the risk of depression in a study group of partners of women with cancer in the first 6 months of the disease. A significant reduction in the mental components of quality of life (MCS) was observed in the study group. Also, a higher risk of depression at the screening ranged from 49% in the first month to 35% in the 6th month of the treatment. Finally, QualityMetric Health Outcomes 5.0 software is useful in predicting the risk of depression in partners of cancer patients. The results obtained should encourage further research in a larger group and for comprehensive care, not only for female cancer patients but also for their partners.

Key words: depression; caregivers; cancer; partners of cancer patients

Oncol Clin Pract 2022; 18, 4: 235–239

Introduction

A family caregiver is usually a relative or friend who provides free, unprofessional help to a sick or disabled person. Family caregivers play an important role in helping cancer patients, but their own needs are rarely systematically assessed in prospective studies [1]. Much more research concerns the analysis of the needs of females caring for family members, while in the oncology literature little attention is paid to men [2], and their concerns and challenges may be different from that of women [3]. Compared to other care groups, partners of cancer patients face specific challenges resulting from the usually sudden onset of illness and the need

to quickly adapt to changes in daily duties and mutual expectations (e.g. family, sexual, professional, social, etc.) [4]. Therefore, our research focuses on the quality of life and the risk of depression in partners of women with cancer in the first 6 months of the disease.

Methods

The Medical Outcome Study Short Form 36

The Medical Outcome Study Short Form 36 (SF-36) is a popular health-related quality of life (HRQoL) questionnaire, useful in various observational groups

Received: 02.02.2022 Accepted: 08.03.2022 Early publication date: 31.05.2022

This article is available in open access under Creative Common Attribution-Non-Commercial-No Derivatives 4.0 International (CC BY-NC-ND 4.0) license, allowing to download articles and share them with others as long as they credit the authors and the publisher, but without permission to change them in any way or use them commercially.

[5]. SF-36 measures eight dimensions of HRQoL: physical functioning (PF), role limitations due to physical problems (RP), body pain (BP), general health (GH), vitality (VT), social functioning (SF), role limitations due to emotional problems (RE), and mental health (MH). Based on eight scales, the survey generates summary scores for physical (PCS) and mental health (MCS) that can be compared with gender and age norms for the general population [6]. The authors obtained the non-commercial license agreement number QM037640 for the Polish version of SF-36V2 from Optuminsight Life Sciences, Inc. and access to the QualityMetric Health Outcomes Scoring Software 5.0.

Data analysis

HRQoL assessment based on SF-36 components was performed by QualityMetric Health Outcomes Scoring Software 5.0 based on standards with a mean of 50 and a standard deviation of 10 [7]. Higher scores indicate better HRQoL in given categories. This software allows the comparison of data with norms for sex and age for the general population and predicts the risk of depression in the study group. The risk of depression at the screening is estimated in relation to the norms based on the standard US population. The lack of direct reference to the Polish population is a limitation of this study.

Settings

The study was cross-sectional, longitudinal, and observational. The approval of the Bioethics Committee No. 151/KBL/OIL/2016 was obtained. Participants were qualified for the study in the order of admission of their partners to the oncology ward from January to December 2018. The staff informed participants how to complete the questionnaires, and participants filled them in in the ward or at home and returned them by mail. The first measurement (t1) occurred 30–45 days after diagnosis and the second (t2) six months later.

Participants

Initially (t1), the study group consisted of 61 male caregivers aged 24–67 years (Mean 46.6), but the second observation (t2) included only 34 participants (age 30–63 years, mean 47.2). After the first assessment, 20 pairs withdrew from the study without giving a reason, 2 patients died, 1 pair parted and 4 changed places for further treatment. The age of women with cancer ranged from 22 to 67 years (mean: 43.6), 41 of them (68.3%) had a diagnosis of breast cancer, and the remaining 20 (32.7%) had cancer in different locations (head and neck: n = 6, digestive tract: n = 2, reproductive organs: n = 2, connective tissue, and skin: n = 10). The lack of homogeneity of the patient group in oncological diagnosis is the next

limitation of the study. Fifty-four women (88.5%) had more than 80 points in the Barthel Index of Activities of Daily Living (BI-ADL), which means that they were independent in everyday life, and the remaining 7 patients (11.5%) were in the range of 60–79 points, which corresponds to the “minimal dependent” functional state.

Results

The results describing the quality of life and the risk of depression at the screening in the study group compared to the reference population in two consecutive evaluations are shown in Figure 1 and Figure 2.

Discussion

Our results show a significant reduction in mental quality of life components (MCS) in the study group. This applies to the following dimensions of the HR-QoL: vitality, social functioning, roles related to emotional functioning, and mental health. Our results are consistent with other research, in which the quality of life score assessed using other tools was also lower in cancer caregivers [8, 9]. Also, the higher risk of depression at the screening is noteworthy. The risk of depression of 49% in the first month and 35% in the sixth month compared with 18% in the general population is congruent with data from other research, where a considerably high prevalence of depression in caregivers was found [8]. This result suggests the need for thorough screening and active preventive and therapeutic measures for partners of women treated for cancer in Poland.

Conclusion

QualityMetric Health Outcomes 5.0 software is useful in predicting the risk of depression in male partners of cancer patients. The results obtained should encourage systemic activities in the organization of care not only for cancer patients but also for their partners, which other authors also recommend [10]. Since the study was cross-sectional and was conducted in one oncology center in an unrepresentative group of men whose partners had different types of cancer, this study should be considered preliminary. Further research in a larger group and a complete statistical analysis could be necessary.

Funding

The study was granted from the Polish National Center for Science, MINIATURA: number 2017/01/X/HS6/01295.

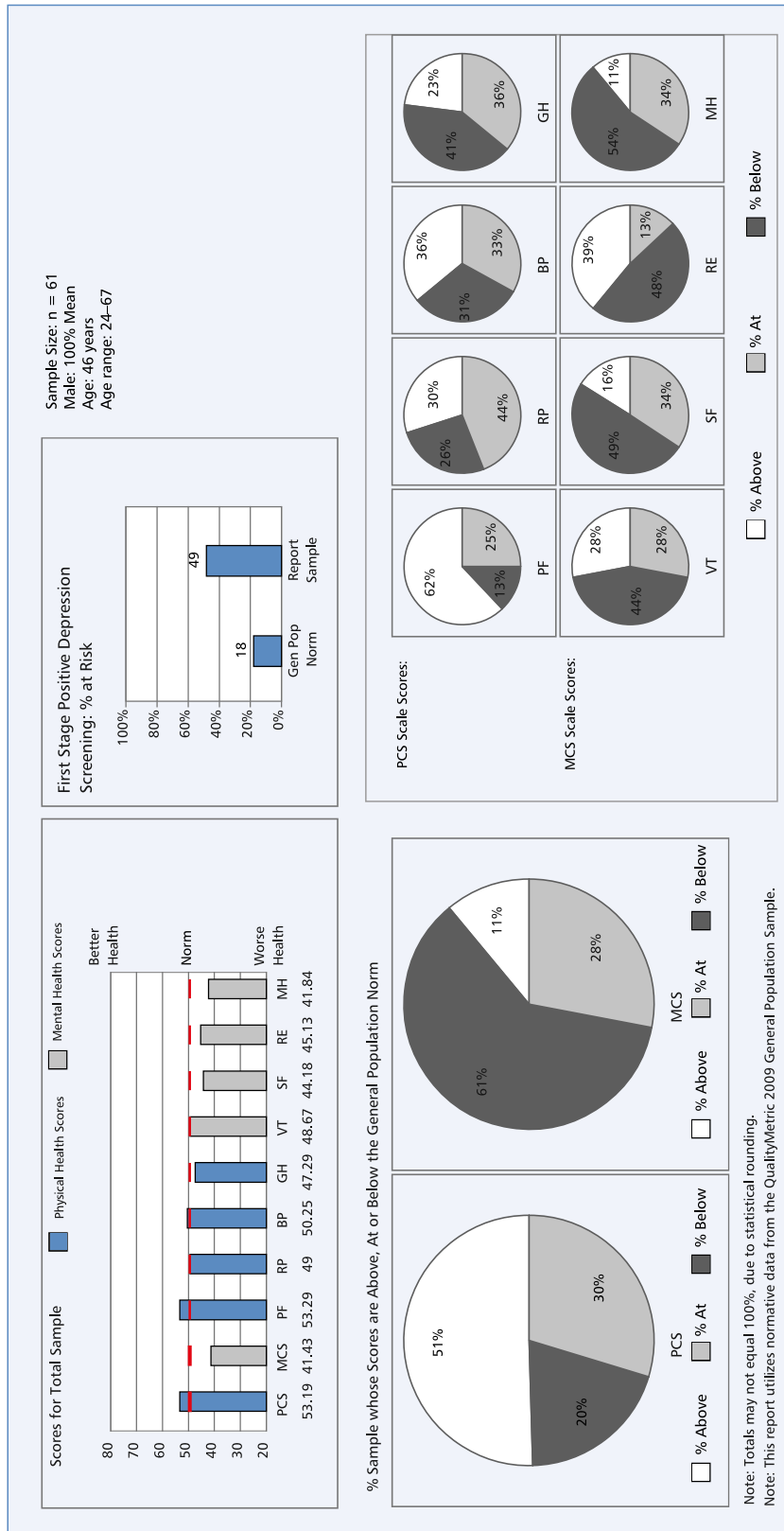


Figure 1. Male caregivers and the standard population in SF-36 QualityMetric Health Outcomes™ Scoring Software 5.0 report, first month after diagnosis; BP — bodily pain; GH — general health; MCS — mental component summary; MH — mental health; PCS — physical component summary; PF — physical functioning; RE — role emotional; RP — role physical; SF — social functioning; VT — vitality

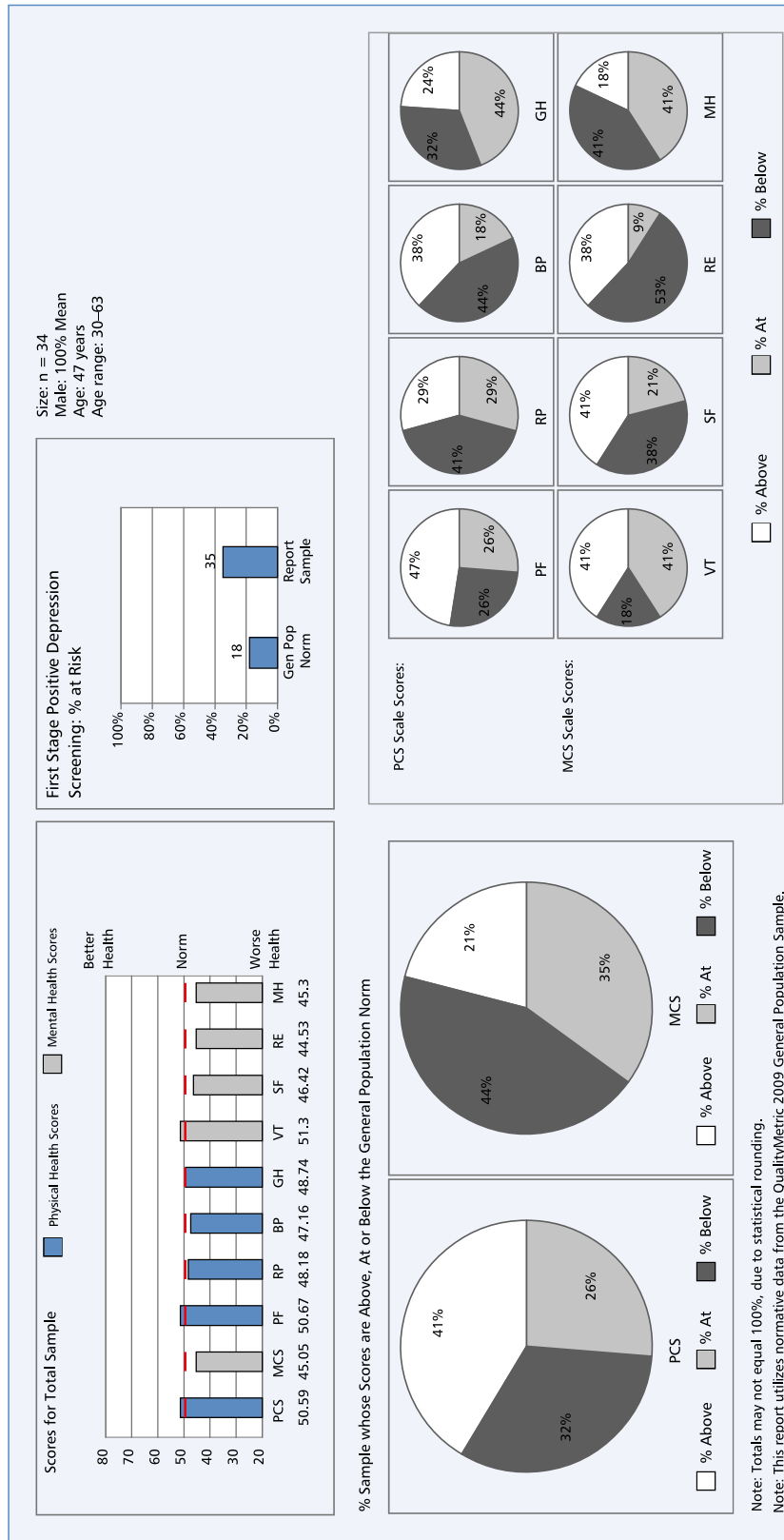


Figure 2. Male caregivers and the standard population in SF-36 QualityMetric Health Outcomes™ Scoring Software 5.0 report, sixth month after diagnosis; BP — bodily pain; GH — general health; MCS — mental component summary; MH — mental health; PCS — physical component summary; PF — physical functioning; RE — role emotional; RP — role physical; SF — social functioning; VT — vitality

Conflict of interest

The authors declare no conflicts of interest at any stage of manuscript preparation.

Acknowledgments

We thank Mapi Research Trust, Boston, the United States of America, for free licenses of scales and software used in the study.

References

- Zavagli V, Raccichini M, Ercolani G, et al. Care for Carers: an Investigation on Family Caregivers' Needs, Tasks, and Experiences. *Transl Med UniSa*. 2019; 19: 54–59, indexed in Pubmed: [31360668](#).
- Chappell NL, Dujela C, Smith A. Caregiver Well-Being: Intersections of Relationship and Gender. *Res Aging*. 2015; 37(6): 623–645, doi: [10.1177/0164027514549258](#), indexed in Pubmed: [25651586](#).
- Lopez V, Copp G, Molassiotis A. Male caregivers of patients with breast and gynecologic cancer: experiences from caring for their spouses and partners. *Cancer Nurs*. 2012; 35(6): 402–410, doi: [10.1097/NCC.0b013e318231daf0](#), indexed in Pubmed: [22067685](#).
- Yeung NCY, Zhang Y, Ji L, et al. Correlates of sexual quality of life among husbands of Chinese breast cancer survivors. *Eur J Oncol Nurs*. 2019; 40: 63–70, doi: [10.1016/j.ejon.2019.03.007](#), indexed in Pubmed: [31229208](#).
- Goodwin BC, March S, Zajdlewicz L, et al. Health literacy and the health status of men with prostate cancer. *Psychooncology*. 2018; 27(10): 2374–2381, doi: [10.1002/pon.4834](#), indexed in Pubmed: [29959807](#).
- Ware JE. SF-36 Health Survey. W: The use of psychological testing for treatment planning and outcomes assessment, 2nd ed. Lawrence Erlbaum Associates Publishers, Mahwah, NJ, US 1999: 1227–1246.
- Saris-Baglama RN, Dewey CJ, Chisholm GB, Plumb E, King J. QualityMetric Health Outcomes™ Scoring Software 4.0. Lincoln, RI, QualityMetric Incorporated 2010.
- Geng HM, Chuang DM, Yang F, et al. Prevalence and determinants of depression in caregivers of cancer patients: A systematic review and meta-analysis. *Medicine (Baltimore)*. 2018; 97(39): e11863, doi: [10.1097/MD.00000000000011863](#), indexed in Pubmed: [30278483](#).
- Kilic ST, Oz F. Family Caregivers' Involvement in Caring with Cancer and their Quality of Life. *Asian Pac J Cancer Prev*. 2019; 20(6): 1735–1741, doi: [10.31557/APJCP.2019.20.6.1735](#), indexed in Pubmed: [31244294](#).
- Røen I, Stifoss-Hanssen H, Grande G, et al. Supporting carers: health care professionals in need of system improvements and education - a qualitative study. *BMC Palliat Care*. 2019; 18(1): 58, doi: [10.1186/s12904-019-0444-3](#), indexed in Pubmed: [31311536](#).