Available online
https://www.atrss.dz/ajhs

AJHS
Algerian Journal of Health Sciences

Original Article

Quality of life of women with breast cancer in Kinshasa and its explanatory factors

Qualité de vie des femmes atteintes du cancer de sein de Kinshasa et ses facteurs explicatifs

Jonathan Enguta Mwenzi[1], Reagan Ngonzo Kitumba [1], Evelyne Gumanda Kafeni [2] & Naomie Ngbowali Dadengi[1]

[1] Department of Psychology, Faculty of Psychology and Educational Sciences, University of Kinshasa, Democratic Republic of Congo
[2] Department of Teaching (Aggregation), Faculty of Psychology and Educational Sciences, University of Kinshasa, Democratic Republic of Congo

ABSTRACT

Introduction: The main objective of this study was to assess the quality of life of women with breast cancer in Kinshasa in order to identify the repercussions of this pathology on the mental life of these women. In addition, the study aims to determine the effect of socio-demographic variables on the quality of life of these women. **Methods:** The study sample consisted of 61 women with breast cancer treated at the University Clinics of Kinshasa. The McGill Quality of Life Rating Scale was administered to the study subjects. The survey took place throughout the month of July 2021. **Results:** women with breast cancer show a state of general and physical ill-being. They experience a strong sense of psychological, emotional and social well-being. The number of children variable influenced the psychological well-being of these women. The cancer stage variable influenced the psychological well-being of these women. **Conclusions:** the breast cancer suffered by these women negatively affects their general and physical well-being. The psychological, emotional and social well-being of these women is not affected, and this, because of the integral care at the University Clinics of Kinshasa which contributes to the restoration of the affects of the latter.

KEYWORDS: breast cancer, quality of life, women

RESUME

Introduction : la présente étude avait pour objectif principal d'évaluer la qualité de vie des femmes atteintes de cancer de sein de Kinshasa afin de cerner les répercussions de cette pathologie sur la vie mentale de ces femmes. En plus, l'étude se propose de déterminer l'effet des variables sociodémographiques sur la qualité de vie de ces femmes. **Méthodes :** l'échantillon de l'étude était constitué de 61 femmes atteintes de cancer de sein prises en charge aux Cliniques Universitaires de Kinshasa. L'échelle d'évaluation de la qualité de vie de McGill a été administrée aux sujets de l'étude. L'enquête a eu lieu durant tout le mois de juillet 2021. **Résultats :** les femmes atteintes de cancer de sein font preuve d'un état de mal-être général et physique. Elles éprouvent un fort sentiment de bien-être psychologique, émotionnel et social. La variable nombre d'enfants a influencé le bien-être psychologique de ces femmes. La variable

stade du cancer a influencé le bien-être psychologique de ces femmes. **Conclusions :** le cancer de sein dont souffrent ces femmes affecte négativement leur bien-être général et physique. Le bien-être psychologique, émotionnel et social de ces femmes n'est pas affecté, et cela, à cause de la prise en charge intégrale aux Cliniques Universitaires de Kinshasa qui contribue à la restauration des affects de ces dernières. Cliquez ici pour introduire votre résumé. Le résumé non structuré n'excède pas 300 mots.

MOTS CLES : cancer de sein, qualité de vie, évaluation, femmes

*** *Corresponding author.*** Tel.: +243812128635, +243972145633.
E-mailAddress: psyjonathanenguta@gmail.com

Received on: 16/07/2022
Revised on: 17/10/2022
Accepted on: 10/01/2023

DOI: 10.5281/zenodo.7537225

Introduction

Nowadays, studies have shown that breast cancer is the most observed cancer in the world and even exceeds that of the lung, as the leading cause of cancer worldwide. Indeed, it has become the most commonly diagnosed type of cancer in the world [1]. In Sub-Saharan Africa, breast cancer is the second cancer after cervical cancer in women. It occurs in young women, with an average age at diagnosis between 42 and 53 years depending on the region, and is the most often diagnosed in the third and fourth clinical stages. In the DRC, it also occurs in the second place [2] as in a retrospective survey conducted in Ivory Coast [3, 4].

Whatever its prevalence in the DRC, breast cancer is still a potentially very deadly disease in the country because of the latest late diagnosis and the significant deficit of therapeutic means. Thus, its diagnosis remains something traumatic because of its many repercussions which can affect the psychic life of the patients [5, 6]. Dauchy and Rouby [6] estimate that a quarter of the number of young patients exhibit symptoms of severe psychological distress.

At equal disease severity, the level of psychological distress of young patients appears to be greater than that of older patients. In this same context, breast cancer can also lead to a loss of the feeling of being a woman because the breast is the representation of femininity [5]. In addition, this loss of identity can give rise to a loss of self-image which leaves the woman faced with a loss of bearings, a loss of the feeling of still being a desirable and desiring woman, who can still be liked or loved.

This damage is not without consequence on the social life of women. Dolbeault [7] affirms in this regard that breast cancer gives rise to the social exclusion of women as a result of the stereotypes and prejudices of which they are victims [6]. In the DRC, studies evaluating the consequences of breast cancer on the mental health of patients are very rare and generally provide little information on the general quality of life of women with breast cancer. Moreover, the World Health Organization [8] recommends researchers to evaluate the repercussions of breast cancer on the mental health of patients not to consider only fragmentary aspects of mental health, it thus suggests taking into account holistic or integral account of all areas of mental health for these women based on their quality of life. In this context, it should be pointed out that the quality of life is an individual's perception of their place in life, within the context of the culture and value system in which they live, in relation to their goals, expectations, norms and concerns. It refers to an area encompassing in a complex way such as : the physical health of the person, his psychological state, his level of independence, his social relations, his personal beliefs and his relationship with the specificities of his environment [9].

As a result, this study proposes to compensate for this lack of information on the quality of life of women with breast cancer in the DRC by taking as a sample a few patients interned at the University Clinics of Kinshasa. It is based on studies carried out outside the DRC where it has been observed that breast cancer very often gradually leads to a deterioration in the quality of life which can even lead to mental depression [6,7]. It thus proposes to know if the results of these previous studies are verified in the Congolese context. In addition, it proposes to determine in the Congolese context the socio-demographic variables which have a particular influence on the quality of life of these women as foreign studies have demonstrated [6,7].

Material and Methods

This study is a descriptive study with an ex-post facto experimental design where the treatment (X) is breast cancer and the measure (O) is the evaluation of the quality of life in women with this pathology The

population of the study is made up of 160 women with breast cancer treated at the University Clinics of Kinshasa. From this population, a non-probability (or convenience) sample of 61 subjects was drawn. We favored this type of sample because first we had to obtain the consent of the women to participate in the study.

Regarding the age group, the sample includes 13 women aged 30-39, 13 aged 40-49, 26 aged 50-59 and 9 aged at least 60. With regard to civil status, we have in the sample 35 married women, 13 divorced, 8 widowed and 5 single. Regarding the number of children, 25 subjects have 1-2 children, 16 3-5 children and 20 more than 5 children. Regarding the level of education, the sample is made up of 17 high school graduates, 25 state graduates (baccalaureate), 9 graduates (Bac+3) and 10 bachelors (Bac+5). Regarding the occupation, the study sample is made up of 21 civil servants in the public sector, 13 subjects employed in the private sector, 15 unemployed subjects (housewives) and 12 shopkeepers.

Three clinical characteristics allow to differentiate the subjects of the study: (1) the location of the tumor, (2) the stage of the cancer and (3) the treatment followed. Regarding tumor location, we have 29 subjects in the left breast, 20 in the right breast and 12 in both breasts. Regarding the stage of cancer, we have 3 subjects in Stage I, 15 in Stage II and 43 in Stage III. Regarding treatment, the sub-study subjects varied according to two treatments (neoadjuvant chemotherapy and radical surgery). For neoadjuvant chemotherapy, 45 subjects benefited from it versus 16 subjects who did not. Radical surgery was performed in only 38 subjects (and in most cases as adjuvant). The other 23 subjects are in a pre-surgical management situation.

The McGill Quality of Life Scale is the instrument used in this study to collect the data. It is an adaptation of the McGill Quality of Life Questionnaire (MQOL: McGill Quality of Live) , the original version of which was developed in the years 1995-1997 by Cohen and his colleagues [10]. This scale, evaluating the subjective quality of life of a person with a life-threatening illness, consists of 15 items grouped into subscales: general well-being (question 1), physical well-being (questions 2,3 and 4), psychological well-being (questions 5,6,7 and 8), existential well-being (questions 9,10, 11 and 12) and social well-being (13,14 and 15).

To express their points of view on these different questions, the subjects are asked to say whether they totally disagree (TD), disagree (D), agree (A) and totally agree (TA.) with the different scale statements. The counting of our scale first consisted in quantifying the points of view of all the subjects of our study on each item of the scale. Thus, to proposals TD, D., A. and TA, we have assigned the following points respectively: 1, 2, 3 and 4. We then proceeded by summing the scores obtained by each subject on each theme of our scale.

To facilitate interpretation, we have obtained average scores for each subject in each theme (by dividing the rating of a subject in a theme by the number of questions in the theme). Starting from these average scores, we have established an interpretation or calibration scale which goes from 1 to 4 (1-1.4: strong state of ill-being; 1.5-2.4: state of ill -being ; 2.5-3.4 : state of well-being; 3.5-4 : high state of well-being).

The metrological study of the scale, carried out using Cronbach's alpha coefficient, demonstrated good internal consistency of the scale (physical well-being .73; psychological well-being .75; existential well-being .71 social well-being .73 and scale as a whole .82).

To process and interpret the study data, we used several descriptive and inferential statistical techniques. Descriptively, we used mean, standard deviation, variance, fashion and charts. At the inferential level, Cronbach's alpha, Kolmogorov Smirnov's test and Kruskal Wallis' H test were used to test certain hypotheses of the study.

At the inferential level, Cronbach's alpha, Kolmogorov Smirnov test, Kruskal Wallis' H test and Mann Whitney' U test were used to test certain hypotheses of the study. The Mann Whitney U test was used to control for the effect of the treatment-follow-up variable on the study results, whereas the Kruskal Wallis H test was used for the other variables. These different statistical indices were obtained using the statistical software SPSS IBM version 26.

In addition to the scale, we organized informal interviews with women with breast cancer to get their views on their quality of life. This information allowed us to better understand the nature of their situation by allowing us to discuss the results of the study.

Results

The results of the study are presented taking into account three axes: (1) the overall presentation of the results, (2) the study of the normality of the distributions of the results and (3) the effect of the variables on the results of the study.

Overall study results

The results presented in the following table relate to the different dimensions of quality of life assessed by the McGill scale involving women with breast cancer.

Table n° 1: Overall presentation of the results (N=61)

Notes Stat. Ind.	G WB	Ph WB	Psy WB	E WB	SW B
Mean	1.93	1.98	2.87	2.93	3.13
Median	2.00	1.90	3.00	3.00	3.00
Mode	2.00	2.67	3.00	3.00	3.33
Standard deviation	0.35	0.44	0.37	0.26	0.40
Variance	0.12	0.19	0.14	0.07	0.16
Minimum	1.00	1.67	2.25	2.25	2.33
Maximum	3.00	3.67	4.00	4.00	4.00

Legend: GWB: General well-being, PhWB: Physical well-being, PsyWB: Psychological well-being, EWB: Existential well-being, SWB: Social well-being, Stat. Ind.: Statistical indices

From the reading of table n° 1, it appears that the averages of our subjects on the different themes of the scale (general, physical, psychological, existential and social well-being) are respectively 1.93; 1.98; 2.87; 2.93 and 3.13. By situating these averages on the interpretation scale, two observations can be made. The first observation relates to the averages of general and physical well-being which are situated in the interval of 1.5-2.4 corresponding to a state of ill-being. These results reveal that the women with breast cancer in the study show a state of general and physical ill-being.

The second observation relates to the means of psychological, existential and social well-being which are situated in the interval of 2.5-3.4 corresponding to a state of well-being. We can thus conclude that the subjects of our study demonstrate a state of physical, psychological, existential and social well-being.

The averages recorded in the table above do not allow us to specify accurately the number of subjects according to their degree of well-being (low or high state of well-being). Thus, to consider that the subjects demonstrate a state of well-being or ill-being, we refer to our quality-of-life interpretation scale. This scale considers that the subject demonstrates a state of well-being when his average is greater than or equal to 2.5. In this context, when the average is less than 2.5, we can conclude that there is a state of ill-being. The following diagrams show the number of subjects in our study according to different ways of expressing quality of life.

In this regard, the results of the study reveal that 59 subjects (i.e. 97% of the sample) show a general state of ill-being against 2 subjects (3% of the sample) who show a state of general well-being. In this same perspective, 7 subjects (i.e. 11% of the sample) show a state of physical well-being against 54 subjects (89% of the sample) who show a state of physical well-being.

We also note that 12 subjects (i.e. 20% of the sample) show a state of psychological ill-being against 49 subjects (80% of the sample) who show a real state of psychological well-being. As far as existential well-being is concerned, 4 subjects (i.e. 7% of the sample) demonstrate a state of existential malaise against 57 subjects (93% of the sample) who demonstrate a state of existential well-being. Finally, 4 subjects (i.e. 7% of the sample) demonstrate a state of social malaise against 57 subjects (93% of the sample) who demonstrate a state of social well-being.

Study of the normality of the distributions of the results

The results of the normality test indicate that the distributions of the study are not abnormal (general well-being: $p. < 0.05$, Kolmogorov-Smirnov = 3,70; physical well-being: $p. < 0.05$, Kolmogorov-Smirnov = 1,65; well psychological well-being: $p < 0.05$, Kolmogorov-Smirnov = 2,34 ; existential well-being: $p < 0.05$, Kolmogorov-Smirnov = 2,58 ; social well-being: $p < 0.05$, Kolmogorov-Smirnov = 2,28). Since the distributions in the study are abnormal, we use the Kruskall Wallis H and Mann Whitney U tests.

Effect of sociodemographic and clinical characteristics on study outcomes

Five sociodemographic variables and three clinical characteristics of the subjects are included in this analysis. These are age group, marital status, number of children, level of education, occupation, tumor location, stage of cancer and treatment.

In terms of socio-demographic variables, the results of the study indicate that only the variable number of children influenced the psychological well-being of the study subjects (psychological well-being: p. □ 0.05, chi-square = 6.65). With regard to clinical characteristics, only the cancer stage variable influenced the psychological well-being of these women (psychological well-being: p.□ 0.05, chi-square = 6.19). This section can be divided into subtitles. It should provide a concise and precise description of the experimental results, their interpretation and the experimental conclusions that can be drawn.

Discussion

The results of the study indicate that women with breast cancer show a state of general and physical ill-being. At the same time, they demonstrate a state of psychological, existential and social well-being. The general and physical ill-being could be explained by the late arrival of the subjects of the study to the establishments specializing in the management of breast cancer. Indeed, more than half of the subjects of the study only arrived at the University Clinics of Kinshasa when their state of health had completely deteriorated. They arrived at the hospital with cancer that has already, in most cases, reached stage III.

They spend their time following endogenous treatments with traditional healers and pastors where the cost of treatment is relatively affordable. And it is only when the situation gets complicated that they choose to go to specialists for real care. However, it has been shown that the effectiveness of breast cancer management depends on early diagnosis and treatment [11].

This general feeling of ill-being is reinforced by the perception that ordinary mortals have of cancer. Indeed, for the average person, cancer is a serious and fatal disease. Thus, anyone affected is considered to be already dead. Several women, during informal interviews, affirmed that the perception of those around them affects their social experience. Such a perception of the entourage can only affect the perception of the overall quality of life of women with breast cancer in accordance with the mirror theory where the psychic life of an individual is affected by the perception that the entourage has of her [12].

Our results thus go hand in hand with those of several authors [13,14] where it has been demonstrated that the overall quality of life of women with breast cancer is considerably affected. For these authors, these women experience difficulties in relation to their role in society, at home and at work. These difficulties are explained by their physical problems (bodily pain and fatigue). Our results also confirm those of Hammouche [15] and Trudel [11] where a generalized feeling of malaise was observed in women with breast cancer.

In terms of psychological well-being, the results indicate that women with breast cancer do not present a problematic psychological picture (absence of depression, nervousness and sadness). This psychological well-being could be due to the psychological support from which the subjects of the study benefit at the University Clinics of Kinshasa. Moreover, studies have shown that psychological support has a particular effect on the perception of psychological well-being. In addition to psychological support, social support has a lot to do with it.

The informal clinical interviews revealed that all the women still benefit from the emotional warmth of their families. They are, at all times visited by their families who, in addition to having the financial means for care, find the time to support them. Thus, this support could to some extent reduce the concerns of these women. These results call into question those of Buijs et al. [16] where it was found that women with breast cancer become more anxious and depressed.

From an existential perspective, our results contradict and challenge most of the previous studies where women with breast cancer have been found 13,17 to lose hope in life and think their life is not worth living. Women with breast cancer have hope and even have ambitions for their future lives. This feeling of well-being could thus be due to the psychological support these women receive from those around them and from the hospital.

This support, as several women affirmed during informal interviews, pushed them to normalize and accept their situation. Thus, powerful in the examples of a few women with cancer having undergone ablation who continue to be useful for their families, the subjects of the study reconsidered their position by developing coping mechanisms in relation to their new situation (purchase external breast prostheses, etc.).

In terms of social well-being, women with cancer show a very strong sense of well-being. This social well-being could be due to the social support they enjoy in the hospital where they were able to find resilience tutors (health care personnel) who offered them much-needed social support for their social adaptability. Some women were able to confirm, during informal interviews, the nursing staff's contribution to their social adaptation. Our results call into question those of several researchers [16, 17, 18) where a real state of

social malaise was observed in women with breast cancer.

With regard to the influence of the variables, the results reveal that only one variable influenced one of these five dimensions of quality of life. It is the number of children that has influenced the psychological well-being of women with breast cancer. In other words, subjects with more than five children show a high level of well-being compared to those with fewer children.

These results go hand in hand with those of Dauchy and Rouby [6] where it was observed that the protective effect of multiparty seems to increase proportionally to the number of deliveries. Our results also confirm those of Trudel [11] where it was observed that women who have had several children present psychological risks reduced by around 30%, in comparison with those who have fewer children. These results also support the conclusion of Dolbeault [7] that the quality of life of women with breast cancer increases with the number of children. These results could be explained by the fact that the more children you have the more reasons you have to stay strong even when the situation gets complicated. In addition, we have more social support than those who have fewer children.

In terms of clinical characteristics, the results of the study reveal that only the stage of cancer influenced the psychological well-being of the subjects in the study. In other words, the psychological well-being of the subjects decreased more as the cancer situation became more complicated. These findings are consistent with those of Mashinda, Kayembe, and Mapatano [2] from several studies in which psychological well-being was shown to deteriorate as breast cancer worsens and reaches the highest stage.

Conclusion

The aim of this study was to assess the quality of life of women with breast cancer in Kinshasa and to identify the socio-demographic variables that could explain this quality. To do this, a quality-of-life assessment scale was administered to a sample of 61 women with breast cancer treated at the university clinics. The results showed that the women in the study experienced a feeling of general and physical malaise. They also experience a sense of psychological, existential and social well-being.

The number of children is the socio-demographic variable that influenced the quality of life of the women with breast cancer in its psychological dimension. The stage of the cancer is the only clinical characteristic that influenced the quality of life of the women in the study in its psychological dimension.

In view of these results, it seems important to us to recommend that the health authorities organize permanent awareness campaigns on breast cancer in order to bring women to early detection of this disease. This early detection is very important for early treatment which can mitigate the psychological effects of this disease in time.

Conflicts of interest

No conflicts of interest

Funding

This research did not receive any external funding.

References

1. Centre International de Recherche sur le Cancer (CIRC) (2021). Prévalence du cancer dans le monde. En ligne sur: http//www.iarc.who.int/fr.
2. Mashinda KD, Kayembe KP and Mapatano MA. (2012). Prévalence du cancer en République Démocratique du Congo : données anatomopathologiques recueillies aux Cliniques Universitaires et à l'Hôpital Général de Référence de Kinshasa. Ann. Afr. Med. 5(3).1087-1093.
3. Effi AB, N'Dah KJ, N'Guiessan AA, Doukouré B, Kouyaté M, Abouna AD et al. (2012). Epidémiologie et histopathologie des cancers en Côte-d'Ivoire. Journal Africain du Cancer. 4(1). 41-47.
4. Binder-Foucard F, Belot A, Delafose P, Remontet L, Woronoff AS and Bossard N. (2013). Estimation nationale de l'incidence et de la mortalité par cancer en France entre 1980 et 2012 : étude à partir des registres des cancers du réseau Francim. Partie 1 - Tumeurs solides. Institut de veille sanitaire. 978-2-11-138316-6. ⟨hal-02084700⟩
5. Ganz P, Greendale G, Petersen L, Kahn B, Bower J. Breastcancer in younger women: reproductive and late health effects of treatment. J Clin Oncol. 2003; 21(22): 4184-93.
6. Dauchy S, Rouby P. Aspects psychologiques du cancer du sein de la femme jeune. 28ème journée de la SFSPM. 2006. Lille. Novembre.

7. Dolbeault S. Quel est l'impact des facteurs psychologiques dans la période de rémission d'un cancer du sein ? État des lieux. La Lettre du Gynécologue. 2012; 376: 30-34.
8. Organisation Mondiale de la Santé. Rapport sur la situation mondiale des maladies non transmissibles. Genève: Editions de l'O.M.S ; 2015.
9. Lanctôt NG. La qualité de vie au travail et en général des personnes ayant des troubles mentaux graves travaillant dans des entreprises sociales. Thèse de doctorat en sciences cliniques. Université de Sherbrooke. Sherbrooke ; 2011.
10. Cohen SR, Mount BM. Living with cancer: "Good" days and "bad" days – What produces them? Can the McGill Quality of Life Questionnaire distinguish between them? Cancer. 2000; 89 (8): 1854-1865.
11. Trudel G. La qualité de vie au travail et communication entre soignant et soignée au près des femmes atteintes de cancer du sein : approche longitudinale. Thèse de doctorat en Psychologie. Université de Université de Montréal. Montréal; 2010.
12. Enguta MJ, Mayala BL, Belanta MI. Variabilité de l'estime de soi en fonction des ethniesdes élèves de Kinshasa. Akofena. 2022; 8 (1): 285-300.
13. Chie WC, Huang CS, Chen JH, Chang KJ. (1999). Measurement of the quality of life during different clinical phases of breast cancer. Journal of Formos Medical Association. 1999; 98(4): 254-260.
14. Greimel E I, Thiel F, Peintinger I, Cegnar E, Pongratz J. Prospective assessment of quality of life of female cancer patients. Gynecologic Oncology; 2002. 85: 140-147.
15. Hammouche F. La qualité de vie chez les femmes atteintes du cancer du sein opérées Etude de 8 cas. Memoire de master en Psychologie Clinique. Université Abderrahmane Mira de Bejaia. Bejaia (Algérie); 2017.
16. Buijs C, Rodenhuis S, Seynaeve CM, Hoesel Q, Van der Wall E, Smit W. et al. Prospective study of long-term impact of adjuvant high-dose and conventional-dose chemotherapy on health-related quality of life. Journal of Clinical Oncology. 2007; 25(34): 5403-5409.
17. Macquart-Moulin G, Viens P, Genre D, Bouscary ML, Resbeut M, Gravis G et al. Concomitant chemoradiotherapy for patients with nonmetastatic breast carcinoma: Side effects, quality of life, and daily organization. Cancer. 1999; 85(10): 2190-2199.
18. Tchen N, Juffs H, Downie FP, Yi QL, Hu H, Irène H. et al. Cognitive function, fatigue, and menopausal symptoms in women receiving adjuvant chemotherapy for breast cancer. Journal of Clinical Oncology. 2003; 21(22): 4175-4183.