

How to evaluate quality of life in overweight and obese women during climacterium?

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SUMMARY

Objective: identifying the instruments used to measure quality of life during menopausal transition and post-menopause in women with obesity or overweight.

Methods: a systematic search using the Embase, Pubmed and Cochrane databases, and the following key-words: menopause/climacteric, quality of life, overweight/obesity. Nineteen papers that fulfilled the including criteria were found.

Results: eighteen studies using generic health questionnaires (global quality of life) were identified, six of them were specific for menopause and one specific for obesity. Eleven studies used generic questionnaires, while only eight questionnaires were specific for menopause.

Conclusion: there was no consensus in the literature about the use of quality of life questionnaires in women with overweight and obesity in climacterium, which makes de comparison and reproducibility of the results difficult. This is an alert about the need for standardization to better evaluate this specific population.

Keywords: menopause, climacteric, overweight, obesity, quality of life.

INTRODUCTION

Obesity is a multifactorial disease, epidemic in nature, which according to the World Health Organization affects over 300 million adults worldwide. Overweight individuals correspond to about one billion adults.¹ The body mass index (BMI) of women seems to reach its highest values between 50 and 59 years, a period that often coincides with menopause.²

This period is characterized by body aging linked to progressive hypoestrogenism, which not only triggers health implications, but is also associated with changes in women's lives. Characteristic symptoms may be observed, including vasomotor, psychological, urogenital, sleep disturbances and sexual dysfunction, as well as difficulties in emotional and social sphere.³⁻⁶ The quality of life

in postmenopausal women is a major subject, because its results can help define therapeutic approaches and promote healthier aging for females, with improved quality of life.^{4,5,7}

Research shows associations among obesity, menopausal symptoms and worse quality of life.^{5,8-17} To conduct this evaluation, various types of questionnaires are used, both generic - analyzing overall quality of life for any population - and specific questionnaires to analyze the quality of life in the transition to menopause and postmenopause.¹⁸⁻²¹

The objective of this work is to identify the instruments used to measure the quality of life of overweight and obese women in climacteric age (during the transi-

tion to menopause and post-menopause), through a systematic review of the literature.

METHODS

A systematic search was performed using the Embase, Pubmed and Cochrane databases, and the following keywords: menopause/climacteric, quality of life, overweight/obesity. Full articles and editorials in English, Portuguese and Spanish were selected. Inclusion criteria were: full articles that used at least one questionnaire to assess quality of life or questionnaire related to climacteric symptoms, being at least part of the sample comprised of patients with overweight, obesity or metabolic syndrome who were also in transition to menopause and post-menopause. Exclusion criteria were: case reports and systematic reviews. Using these criteria were selected twenty-two articles after reading the title and abstract.

After reading the full articles, three were excluded for the following reasons: the first examined only psychological well-being, the second used questionnaires of quality of life specific to women with breast cancer, and the third used specific questionnaires for urinary incontinence and sexual function. In the end, 19 articles were selected for this systematic review.

RESULTS

Nineteen articles were found in the systematic literature search. The characteristics of both the articles and questionnaires used are summarized in Table 1. The studies were published between 1999 and 2013, and ten of these were dated 2009 or later. The different populations ranged from 40 to 70 years of age, n ranged from 30 to 161.393 women, with the majority (13) of research having n of 200-1,194.

TABLE 1 Summary of articles that used questionnaires to assess quality of life in overweight or obese women in transition to menopause and post-menopause, identifying the year of publication, the instrument used, age range and/or mean population and number of participants

Year	Author	Instruments	Age (mean)	n
2013	Ashok P et al. ²²	World Health Organization five-item well-being index (WHO-5)	40-60	60
2012	Gallon CW et al. ³³	Menopause Rating Scale (MRS)	40-65 (52.8)	200
2011	Imayama I et al. ²³	SF-36; Brief Symptom Inventory-18; Perceived Stress Scale; Social Support Survey	50-75 (58)	439
2011	Heidelberg DA et al. ²⁴	SF-12	35-74	983
2010	Lynch CP et al. ²⁵	Items taken from instruments used in the WHI trial to assess emotional aspects of quality of life; SF-36 to evaluate physical aspects of quality of life	50-79	161,393
2010	Alonso AMF et al. ⁹	Kupperman Index	(49.9)	574
2010	Riesco E et al. ²⁶	SF-36	Pre-menopausal women (49) Post-menopausal women (52)	30
2009	González FG et al. ²⁷	EuroQol 5-D; Rosenberg Self-Esteem Scale	(60.53)	106
2009	Castelo-Branco C et al. ³⁴	Cervantes Scale	45-64 (54.38)	284
2009	Llaneza P et al. ³⁵	Cervantes Scale	50-65	496
2009	Messier V et al. ²⁸	Medical Outcomes Study General Health Survey (MOS)	46-70	136
2008	Karelis AD et al. ²⁹	Medical Outcomes Study General Health Survey (MOS); Perceived Stress Scale; Self-Esteem Scale; Body-Esteem Scale; Scale of perceived risk for developing heart disease or diabetes	46-70	137
2008	Yankura DJ ³⁰	SF-36	52-62	580
2007	Llaneza P et al. ³⁶	Cervantes Scale	50-64	250
2007	Lemoine S et al. ³¹	SF-36; Three-Factor Eating Questionnaire	Pre-menopausal women 30-45(39) Post-menopausal women 49-64 (56)	40
2007	Daley A et al. ³⁷	Women's Health Questionnaire (WHQ)	46-55 (50.5)	1,194
2007	Chedraui P et al. ³⁸	MENQOL	40-70 (55.9)	325
2006	Mirzaiinjmadadi K et al. ³⁹	Greene Scale	45-60	883
1999	Raikkonen K et al. ³²	SF-36; Beck Depression Inventory; Spielberg Trait Anger/Anxiety Questionnaire; Scale for distress; Interpersonal Support Evaluation List (ISEL)	45-53	345

Twenty-four questionnaires were identified in nineteen articles (Table 2). The instruments found were divided into generic, assessing overall quality of life in any population; specific, for quality of life in women during transition to menopause and post-menopause; and restricted, for psychosocial aspects of quality of life.

TABLE 2 List of assessment tools for quality of life used in overweight and obese women in transition to menopause and post-menopause, identifying the type of instrument, frequency of use, and year of use

Instrument	Type	Frequency	Year
World Health Organization five-item well-being index (WHO-5)	EPS	1	2013
Menopause Rating Scale (MRS)	EM	1	2012
SF-36	G	6	2011, 2010, 2010, 2008, 2007, 1999
Brief Symptom Inventory-18	EPS	1	2011
Social Support Survey	EPS	1	2011
SF-12	G	1	2011
Perceived Stress Scale	EPS	2	2008, 2011
Items taken from instruments used in the WHI trial	EPS	1	2010
Kupperman Index	EM	1	2010
EuroQol 5-D	G	1	2009
Rosenberg Global Self-Esteem Scale	EPS	1	2009
Cervantes Scale	EM	3	2009, 2009, 2007
Medical Outcomes Study General Health Survey (MOS)	G	2	2009, 2008
Self-Esteem Scale	EPS	1	2008
Body-Esteem Scale	EPS	1	2008
Scale of perceived risk for developing heart disease or diabetes	EPS	1	2008
Three-Factor Eating Questionnaire	EPS	1	2007
Women's Health Questionnaire (WHQ)	EM	1	2007
MENQOL	EM	1	2007
Greene Scale	EM	1	2006
Beck Depression Inventory	EPS	1	1999
Spielberg Trait Anger/Anxiety Questionnaire	EPS	1	1999
Scale for Distress	EPS	1	1999
Interpersonal Support Evaluation List (ISEL)	EPS	1	1999

G: generic quality of life instrument; EM: specific instrument for quality of life in the transition to menopause and post-menopause; EPS: specific instrument for psychosocial aspects of quality of life.

Four different instruments were identified to assess overall quality of life. For specific analysis of quality of life related to the climacteric period, six different questionnaires were used. Most instruments found (fourteen) aimed to quantify the quality of life related to psychosocial aspects.

The SF-36 was observed more frequently, being used in six articles published from 1999 to 2011. The second most frequently found was the Cervantes Scale, seen in three articles, two published by a single group of researchers (Lhaneza et al.^{35,36}). The Medical Outcome Study General Health Survey (MOS) was used in two articles, and the other questionnaires in one study only.

Six studies used more than one instrument to measure quality of life. Eight studies used specific questionnaires for menopause, while 11 used generic questionnaires, combined or not with instruments for psychosocial analysis.

DISCUSSION

The nineteen studies obtained used twenty-four different scales. Eleven used generic questionnaires,²²⁻³² while eight employed specific instruments to assess quality of life in women before and after menopause.^{9,33-39} A single article made reference to a specific questionnaire related to obesity.³¹

The SF-36 and Medical Outcomes Study General Health Survey (MOS) questionnaires, which are derived from the same study, were the most prevalent generic tools, being found in eight articles.^{23,25,26,28-32} The SF-36 was the most widely adopted, being found in six articles,^{23,25,26,30-32} which is consistent with the literature, since it is the most widely used generic instrument documented in over four hundred publications.^{40,41} However, none of these questionnaires takes into consideration important aspects such as menopausal symptoms or specific psychosocial conditions regarding this time of life, which hinders the assessment of quality of life in this population. The social psychological aspect was measured by fourteen different scales covering aspects of emotional health and the social structure in which the individual lives, which affect the quality of life. Six articles used generic instruments combined with psychosocial questionnaires, showing that the use of generic instruments may fail to take into account important aspects of quality of life in the period close to menopause.^{23,25,27,29,31,32}

Ashok et al.²² used the World Health Organization five-item well-being index (WHO-5) well-being questionnaire, which assesses psychological and not physical dimensions related to menopause.²² Lynch et al.²⁵ used the SF-36 together with a questionnaire to determine psychosocial quality of life created from instruments used in the

Women's Health Initiative (WHI) trial.²⁵ Therefore, the article used its own instrument, unlike those classically found in the literature, which demonstrates the lack of standardization in the literature.

Eight of the nineteen studies used specific questionnaires for menopause.^{9,33-39} The Cervantes Scale was the most prevalent, found in three of them.³⁴⁻³⁶ The instrument was developed in Spanish, mainly for use in this population, and translated into Portuguese, despite being validated in a limited number of countries.⁴² In these three studies, two were conducted by the same author (Llaneza et al.⁹, making it difficult to generalize the results.^{35,36} Alonso et al.³⁹ used the Kupperman Index, according to the data found in the literature about its widespread use, even with criticism for not addressing urogenital, social and other symptoms related to sexuality.^{9,43-45} Mirzaiinjabadi et al.³⁹ used the Greene Scale, a list of 21 items including psychological, vasomotor and somatic symptoms, which was not exactly designed as an instrument of quality of life.^{21,39} The other specific questionnaires were: Menopause Rating Scale (MRS), Women's Health Questionnaire (WHQ) and Menopause-Specific Quality of Life Questionnaire (MENQOL), which have already been validated and are the main scales currently used in studies on women in transition to menopause and post-menopause.^{33,37,38,43,46,47} In Brazil, only WHQ, MENQOL and Cervantes Scale were validated; Greene Scale has been used for many years, and MRS is being used even without validation.

Lemoine et al.³¹ was the only author who used a specific questionnaire for obesity, the Three-Factor Eating Questionnaire, which is related to psychological well-being. Thus, it is important to assess the need to use specific questionnaires for obesity since the population in question is also subject to the effects of obesity as a comorbidity on quality of life.³¹

There is no consensus as to the best type of instrument to be used to assess quality of life. Fayers et al.⁴¹ believes that both generic and specific measures have advantages and disadvantages. He recommends the use of generic and specific instruments wherever possible, in combination, to give strength to both approaches.⁴¹ On the other hand, many researchers prefer to use specific questionnaires to assess a certain condition. Chedraui et al.³⁸ states that specific instruments are required in each condition, and menopause, or climacterium, is not an exception.³⁸ Utian¹⁶ believes that in order to evaluate the quality of life of women in transition to menopause and post-menopause, somatic symptoms such as hot flashes, night sweats, genital atrophy and urinary incontinence, and psychological symptoms such as mood swings and

life circumstances, should be included; i.e., occupational, sexual, emotional and health-related factors.¹⁶ Schneider et al.²¹ argues that the instrument must have certain attributes or properties of measures suitable for a particular purpose. Specific questionnaires are more sensitive to change and make sense for both the physician and patient, since the items included report highly relevant domains to that particular population.²¹

The varied use of questionnaires can be justified by the researcher's choice for the most widely used instruments such as the SF-36 and also the preference of certain authors to use surveys created in the language and targeted to the cultural context of the study population.⁴⁸ The predilection for generic tools found in the articles used in this review fails to analyze important characteristics of the study population, given the peculiarities of both the period of transition to menopause and post-menopause and obesity. Therefore, assessment of the quality of life of these women was hindered.

CONCLUSION

The most widely used instrument for assessing quality of life in obese women in transition to menopause and post-menopause was the generic SF-36 questionnaire. The Cervantes Scale was the specific instrument most used. There was no consensus regarding the use of the instruments, which is an obstacle for comparison and reproducibility of results. The current study is a warning to researchers that there is a need for a standard instrument to assess this growing population.

RESUMO

Como aferir qualidade de vida de mulheres com sobrepeso e obesidade no climatério?

Objetivo: identificar os instrumentos utilizados para aferir a qualidade de vida de mulheres com sobrepeso e obesidade no climatério (transição para menopausa e pós-menopausa).

Métodos: busca sistemática nas bases de dados Embase, Pubmed e Cochrane com os descritores: *menopause/climacteric, quality of life, overweight/obesity*. Foram incluídos 19 artigos que preencheram os critérios de inclusão.

Resultados: foram identificados 18 questionários genéricos (qualidade de vida global), 6 específicos para menopausa e 1 específico para obesidade. Onze estudos utilizaram instrumentos genéricos, enquanto 8 utilizaram específicos para menopausa.

Conclusão: não houve consenso na literatura quanto ao uso de instrumentos de qualidade de vida em mulheres com sobrepeso e obesidade no climatério, o que dificultou a comparação e a reprodutibilidade dos resultados. Este é um alerta quanto à necessidade de padronização para melhor avaliar essa população específica.

Palavras-chave: menopausa; climatério; sobrepeso; obesidade; qualidade de vida.

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