

# Influence of climacteric symptoms in women's quality of life: integrative review

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## Abstract

**Objective:** Verify the influence of menopausal symptoms on quality of life of women. **Method:** Literature review through the Health Virtual Library using as strategy these search descriptors: women's health, climacteric, menopause, change of life, quality of life, signs and symptoms, complaints and symptoms and clinical manifestations. **Results:** Our findings suggest that the climacteric symptoms corroborate with low self-esteem and decreased quality of life in women causing problems in their personal and professional relationships showing the importance of the role of health professionals, particularly nurses, in promoting educational strategies and supporting women in this stage of the women lives. **Conclusion:** The signs and climacteric symptoms can affect women quality of life and their biopsychosocial welfare suggesting that the presence of a qualified professional can alleviate and, in some cases, reverse the negative context.

**Keywords:** climacteric; nursing; climacteric symptoms; quality of life.

## Introduction

The progressive ageing population is a phenomenon that is occurring for several decades worldwide as result of several factors, especially the decrease of the fecundity and mortality, and the increase of life expectancy; being this change in age structure more evident in women.<sup>1</sup> In Brazil in 2000, for every group of 100 elderly women there were 81 men in the same age group; in 2050 this number shall be around 76.<sup>2</sup>

Women have many remarkable changes throughout their lives such as menarche, sexual initiation, pregnancy and menopause.<sup>2</sup> Among these stages it is worth highlighting the climacteric period, which is characterized by a long transition period between the reproductive (menacme) and the not reproductive (agedness).<sup>3</sup>

Accordingly with Health Ministry the climacteric, regardless of irregular menstrual cycles and observable endocrine changes, comprises the period between 40 to 65 years old, subdividing in: pre-menopause (commonly beginning after 40 years old), perimenopause (starting about 2 years before the last period and going to one year after it) and post-menopause (initiate one year after the last period).<sup>4</sup>

During climacteric the women experience moments of physical, emotional and social modifications, being the body related induced by modifications in ovary structure and function, which results in decrease of estrogen production. The main symptoms are vasomotor reactions; psychological, sexual and urogenital changes; even sleep disorders that may interfere with women's quality of life.<sup>5</sup>

Some authors question if the climacteric symptoms and the potential life quality compromise could be related with psychosocial and cultural factors connected with the aging process, in addition to hypoestrogenism.<sup>6</sup>

Facing the high complexity and the potential impacts of the climacteric syndrome in women's life, it has been proposed a new approach highlighting the value of a qualified hearing, in parallel with clinic interventions (when necessary) in

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order to allow a better understanding of the existential process presented, where psychosocial aspects related with aging merge with those resulting of follicular depletion and its hormonal consequences.<sup>7</sup>

Thus, studies in this area are important to verify the extensive effects of climacteric period and its impacts on women life quality, both for expansion of the scientific knowledge and for sustain educational practices or forms of support. These actions would help the performance of the nursing professional in health assistance of these women.

## Materials and methods

This literature review presents a synthesis of multiple original studies in order to answer a specific research question, allowing an overview of the state of the art about a particular subject, in addition to pointing out eventual gaps that should be fulfilled with new studies.<sup>8</sup>

In order to produce this sort of review, six steps are required: selection of research hypothesis or questions, establishment of inclusion and exclusion criteria for sampling, definition of the characteristics to be extracted from the studies, analyze the findings, interpretation of the results and review report.<sup>8</sup> In the present study we aim to answer what is the scientific knowledge produced about the influence of the climacteric symptoms in women's life.

It was performed a search of scientific articles published between 2004 (release time of the Fulltime Attention in Women's Health Policy) and 2015, which cover contents about the more prevalent symptoms of climacterium and your relation with women's life quality. The searches were held in the Virtual Library of Health (BVS), which possess as main databases: LILACS, SCIELO, MEDLINE, COCHRANE and NDENF. In a second step, the reference lists of these articles were checked and other studies were selected for a comprehensive review.

Three groups of command were applied in databases searches: terms relative to climacterium, life quality related terms, signs and symptoms. In order to combine the terms of each group the Boolean operator "OR" was used, and for combinations between the groups the Boolean operator "AND" was applied. In order to increase the research sensibility and reduce the selection bias, the DeCS base (Terms in Health Science) and related scientific references were used for choose the indexing terms and keywords.

In the first group the following key words were used for search: climacterium, woman's health, women's health, feminine health, menopause, change of life. In the second group it was used the keyword: life quality. In the third group the keywords applied were: signals and symptoms, complaints and symptoms, clinical manifestations.

The selected articles fit in the following inclusion and exclusion criteria: studies published between 2004 and 2016, in national and international journals, available in full version, and those presenting primary data in the study results. It was excluded: studies that did not satisfy the inclusion criteria, thesis and/or dissertation, notes of the author, studies not published in full, articles that did not answer the study question.

The selection article process was held in four steps. First the titles of the articles located in BVS were read, and those that clearly did not fit in any previous criteria were excluded. In the second phase the information appearing on abstract was used for the inclusion/exclusion determination. When there was not enough information for this decision, the article was kept until the next step. In the third stage the lists of references from selected articles were verified in order to identify missed publications from the original searches. Finally, in the fourth step all selected articles that fulfilled the inclusion/exclusion criteria were fully analyzed.

For the analysis process it has been drawn up a research instrument that enable the triage of the following data: title, authors, year of publication, level of evidence,<sup>9</sup> theoretical-methodological approach basing the research, and conclusions/recommendations of the study.

The critical assessment of the studies was based on reading and rereading of the articles. Following that a summarized comparative table was drafted from the recovered data, and subsequently the findings were debated in the light of the relevant literature and the experience and perception of the authors of this study.

The research recovered 2,124 articles. After the analysis of this material, it was established that fifteen articles fulfill the established criteria, forming the final sample (Figure 1).

## Results

After a systematic reading of the studies found, the data were systematized as shown in Figure 1. Among the selected articles, twelve were published in international journals of gynecology-obstetrics, women's health, climacteric period and general health. Three articles were published in national journals of medical and maternal-infant areas. All articles have been developed by researchers affiliated with centers or research institutions in areas of tocogynecology, medicine, endocrinology, psychiatry, psychology, epidemiology and surgery; conducted in United States (5), Brazil (3), Scotland (1), Poland (1), Chile (1), Finland (1), Iran (1), multi-center study of Latin America (1) and published between 2005 and 2015 (Tabela 1).

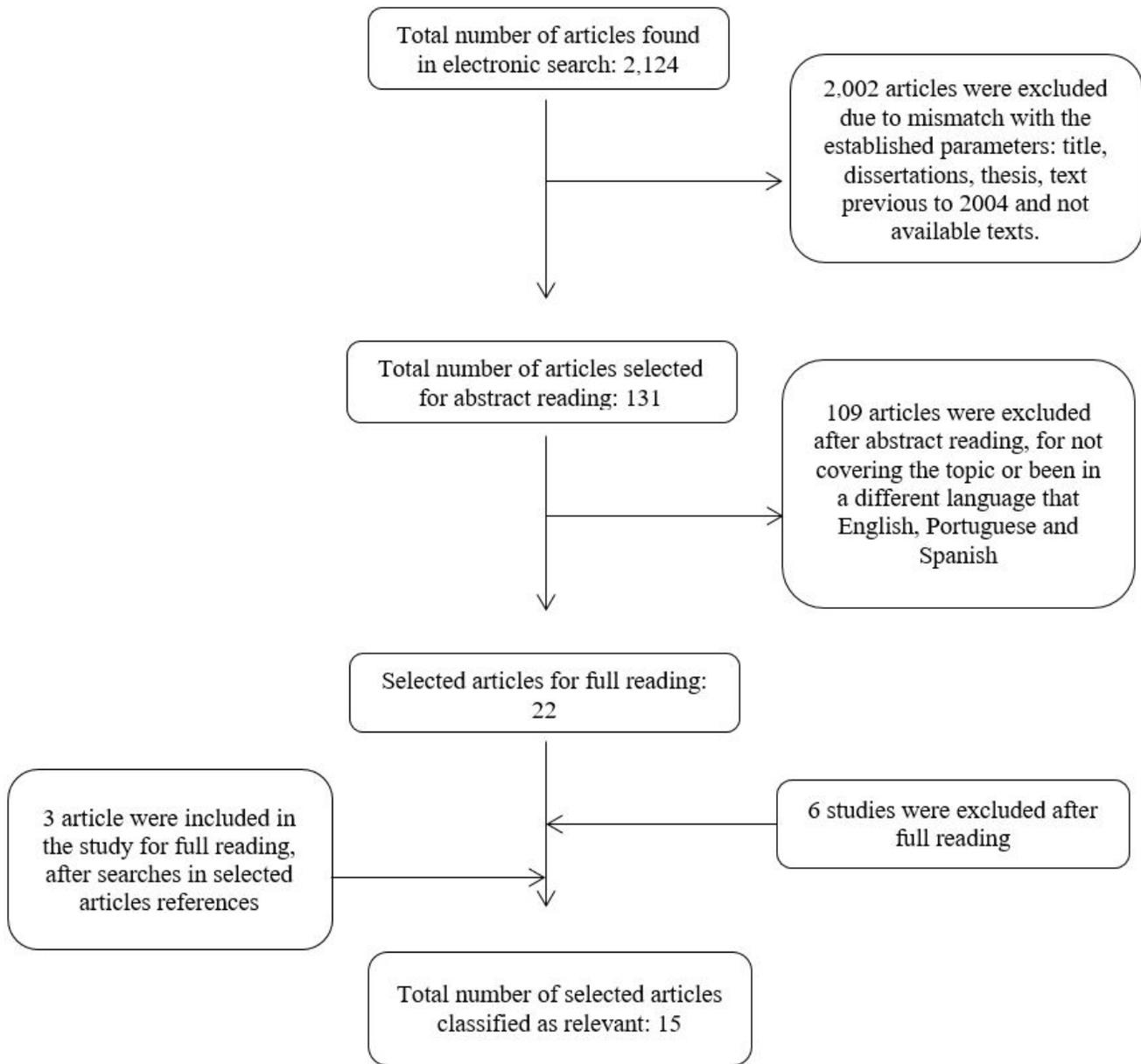


Figure 1. Flowchart of the article selection process.

Table 1. Selected studies for integrative review

Author, Title and Level of Evidence	Country and Year	Method	Main results
Sussman M, Trocio J, Best C, Mirkin S, Bushmakin AG, Yood R, Friedman M, Menzin J, Louie M. <b>Prevalence of Menopausal Symptoms among Mid-Life Women: Findings from Electronic Medical Records<sup>10</sup></b> IV	USA 2015	Retrospective descriptive Study	Hot flushes were the most frequent symptoms reported by women.

Table 1. Continued...

Author, Title and Level of Evidence	Country and Year	Method	Main results
<b>Bién A, Rzońca E, Iwanowicz-Palus G, Pańczyk-Szeptuch M.</b> <b>The Influence of Climacteric Symptoms on Women's Lives and Activities<sup>11</sup></b> III	Poland 2015	Comparative Study of Cross Cut	The intensity of climacteric symptoms affects women's activities and quality of life. The more severe the symptoms, the worse the quality of life, expressed by feeling of failure, "loss" of youth / beauty and opportunities.
<b>Looby SE, Shifren J, Corless I, Rope A, Pedersen MC, Joffe H, Grinspoon S.</b> <b>Increased Hot Flash Severity and Related Interference in Perimenopausal HIV-infected Women<sup>12</sup></b> III	USA 2014	Comparative Study of Cross Section	Women in the climacterium infected with HIV experience more vasomotor symptoms compared to uninfected women, reducing their quality of life.
<b>Baccaro LF, Boin IF, Costa-Paiva L, Pinto-Neto AM.</b> <b>Quality of Life and Menopausal Symptoms in women with Liver Transplants<sup>13</sup></b> III	Brazil 2013	Comparative Study of Cross Section	Climacteric symptoms negatively influence the quality of life in liver transplant recipients, although to a lesser extent than in women with no history of liver disease.
<b>Duffy OK, Iversen L, Hannaford PC.</b> <b>The Impact and Management of Symptoms Experienced at Midlife: a Community-based Study of Women in Northeast Scotland<sup>14</sup></b> IV	Scotland 2012	Descriptive Study of Cut Transversal	About a third of women would have liked to have received more support about the symptoms of menopause from their general practitioner or from the nursing professional. Hot flashes appear first among the most frequent complaints that compromise relationships and result in high levels of irritability.
<b>Lorenzi DRS, Catan LB, Cusin T, Felini R, Bassani F, Arpini AC.</b> <b>Characterization of the quality of life according to the menopausal state among women from the Southern Region of Brazil<sup>15</sup></b> III	Brazil 2009	Comparative Study of Cross Section	There were no statistically significant differences between pre and postmenopausal groups. For the authors, the greater severity of emotional complaints may be related to women's lack of information.
<b>Im EO, Lee BI, Chee W, Dormire S, Brown A.</b> <b>A National Multiethnic Online Forum Study on Menopausal Symptom Experience<sup>16</sup></b> IV	USA 2011	Secondary analysis of qualitative data	The "experience" of the signs and symptoms in the climacteric is influenced by the culture and the ethnic groups in which the women are inserted.
<b>Valadares LL, Pinto-Neto, AM, Conde DM, Osis MJ, Souza MH, Costa-Paiva.</b> <b>Women's Testimony about Menopause and Treatment of Its Symptoms<sup>17</sup></b> III	Brazil 2008	Cross-Sectional Comparative Study with Population Data Analysis	The main complaints presented were insecurity, confusion, anguish, stress, hot flashes, vaginal dryness, mood swings and doubts. There is a need to pay more attention to the problems perceived in the climacteric, particularly directed to economically disadvantaged women.

Table 1. Continued...

Author, Title and Level of Evidence	Country and Year	Method	Main results
<b>Painovich JM, Shufelt CL, Azziz R, Yang Y, Goodarzi MO, Braunstein GD, Karlan BY, Stewart PM, Merz CNB</b> <b>A Pilot Randomized, Single Blind, Placebo-Controlled Trial of Traditional Acupuncture for Vasomotor Symptoms and Mechanistic Pathways of Menopause<sup>18</sup></b> I	USA 2012	Randomized controlled blinded trial	Acupuncture treatment reduced the frequency and severity of symptoms and improved the quality of life of women.
<b>Whiteley J, DiBonaventura MC, Wagner JS, Jose Alvir, Shah S</b> <b>The Impact of Menopausal Symptoms on Quality of Life, Productivity, and Economic Outcomes<sup>19</sup></b> III	USA 2013	Study Comparison of Cut Transversal with secondary data	Women who presented with climacteric symptoms reported increased physical, mental, work-related problems, increased involvement in daily life activities, more visits to the doctor and hospitalizations.
<b>Jafari F, Hadizadeh MH, Zabihi R, Ganji K</b> <b>Comparison of Depression, Anxiety, Quality of Life, Vitality and Mental Health between Premenopausal and Postmenopausal Women<sup>20</sup></b> III	Iran 2014	Study Comparison of Corte Transversal	Postmenopausal women have higher levels of anxiety and depression and lower levels of quality of life, mental health and vitality.
<b>López-Alegría F, Lorenzi DRS</b> <b>Climate Symptoms and Quality of Life of Users of Primary Health Care Clinics, Santiago<sup>21</sup></b> III	Chile 2011	Transversal Descriptive and Association Study	Postmenopausal women, smokers, who do not perform physical and leisure activities, presented the worst quality of life scores and the most intense climacteric symptoms.
<b>Blümel JE, Chedraui P, Baron G, Espinoza MT, Flores D, Izaguirre H, Leon-Leon P, Lima S, Mezones-Holguin E, Monterrosa A, Mostajo D, Navarro D, Ojeda E, Onatra W, Royer M, Soto E, Tserotas K, Vallejo MS</b> <b>Menopausal Symptoms appear before the Menopause and Persist 5 Years beyond: a Detailed Analysis of a Multinational Study<sup>22</sup></b> IV	Multicentric studies conducted in Latin- American countries 2012	Descriptive Study of Cut Transversal	Symptoms of muscle / joint and emotional discomfort were the most prevalent and most intense. These symptoms appear in premenopausal, impairs the quality of life and persist up to five years postmenopausal.

Table 1. Continued...

Author, Title and Level of Evidence	Country and Year	Method	Main results
<b>Hautamäki H, Haapalahti PP, Savolainen-Peltonen H, Tuomikoski P, Ylikorkala O, Mikkola TS.</b> <b>Premenstrual Symptoms in Fertile age are Associated with Impaired Quality of Life, but Not Hot Flashes, in Recently Postmenopausal Women</b> <sup>23</sup> III	Finland 2014	Comparative Study of Cross Section	Women with pre-menstrual symptoms are at higher risk of post-menopausal quality of life but not vasomotor symptoms.
<b>Terauchi M, Hirose A, Akiyoshi M, Owa Y, Kato K, Kubota T.</b> <b>Subgrouping of Japanese Middle-Aged Women Attending a Menopause Clinic Using Physical and Psychological Symptom Profiles: a Cross-Sectional Study</b> III <sup>24</sup>	Japan 2014	Comparative study of Cut Transversal	Women with more severe climacteric symptoms (musculoskeletal pain, vasomotor and psychological symptoms) are those who tend to have the highest systolic / diastolic blood pressure, higher pulse rates, smoke more, and exercise less frequently.

## Discussion

The health care provided to women in climacteric period is a continuous challenge for health professional and managers. The main actions to confront the psychosocial problems resulting from this moment should point to health promotion, prevention of the signs and unpleasant symptoms, and monitoring those women that have already shown the climacteric syndrome.

The findings of this review indicate that the most significant symptoms are the vasomotor.<sup>10-12,14,16,17,22</sup> This complain appears as a warmth sensation in face, neck and thorax, are resulting from the hormonal changes (decrease in estrogen levels), possibly leading to a decline of serotonin, which disturb the thermoregulation mechanism of hypothalamus. Frequently they occur during at night, presenting different lengths, frequency and intensity.<sup>25</sup> These are considered the first symptoms of climacteric period, because they commonly result in appearance of other complains, such as mood swings and decreasing of cognition. When uncontrolled, they may have a negative impact in women's life, affecting her sociability, mental health, sense of well-being and work capacity.<sup>25,26</sup>

Such findings are relevant, since the health professionals could recognize the women presenting these discomforts and prepare actions to deal with these symptoms, providing greater comfort through health education. Those interventions should be based in an individual approach, considering the patient's previous knowledge and culture.<sup>3</sup>

Three studies pointed out the undesirable effects of night sweats and insomnia, which are considerable uncomfortable and impair the women's life quality.<sup>10,11,14</sup> For Silva and Wender<sup>27</sup> the insomnia prevalence is relatively high and could be resulting, collaterally by the vasomotor symptoms that occur more often in the post menopause period.

A study performed by Brito et al.<sup>28</sup> in Belém do Pará, also observed a high prevalence of insomnia related with wave heats. This association between sleep disorders and night sweats and wave heats could be explained by the elevation of the body temperature that leads to sleep disruptions, harming the moments of rest and, therefore, the life quality.

Another study has identified in women among 45 and 59 years old patients of a reproductive center of Natal - RN, that the main signs and symptoms of climacteric period were insomnia and sleep disorders, which were related by 48% of the interviewed women.<sup>29</sup>

The presence of vaginal dryness was evidenced in four studies<sup>10,14,15,17</sup>, fact with negative influence in sexual life, which may outwear the conjugal relationship. Cabral et al.<sup>30</sup> also evaluated the influence of the climacteric symptoms on sexual activities of 370 women between 40 and 65 year old, showing that 65% of these women presented risks of

sexual dysfunction.<sup>30</sup> Unlike some climacteric symptoms that will fade away with time, the vaginal dryness increases progressively and may come along with another system such as dyspareunia, vaginal itching, irritation and pain.<sup>31</sup>

Climacteric women frequently suffer with symptoms of mood swing such as anxiety, depression and irritability, probably resulting of decrease in estrogen levels. This also may be consequence of reduction in sexual desire, genital atrophy, and mainly the misunderstanding by the partner.<sup>32</sup> Furthermore variables such as decline of youth, reproductive function, children leaving home and the beauty standards imposed by society may cause a feeling of "uselessness" in women, which contributes to a great psychosocial stress appearance.<sup>33</sup>

An important finding of Valadares et al.<sup>17</sup> involves the socioeconomic level of climacteric women. Accordingly with the authors, the signals and symptoms did have a greater presence in those belonging to a lower level of education. Those findings may be attributed to a higher access to information granted to women with higher socioeconomic level.

The hormone replacement therapy has been the first option of many women intending to have an immediate relieve of discomfort. This treatment has the main objective of restore the levels of estrogen. However it is indispensable that the health professionals know not only the physiology of the climacteric period, but also your psychosocial aspects and comprehend the collateral effects caused by this hormone replacement therapy.<sup>34</sup>

Currently, due to restriction on indication of hormone replace therapies; it has been tried alternative strategies in order to relieve the climacteric symptoms, including the yoga practice, which has positive results with insomnia problems and is improving the life quality of these patients; acupuncture for anxiety relieve; and physical activity, antidepressant and phytoestrogens for reduction of hot flushes.<sup>35</sup>

Eight studies<sup>10-14,20-22</sup> reinforced the negative impact of those symptoms that will lead to a life quality decrease of climacteric women, with chances to stand through their lives. The authors also remember that factors as cultural circle, civil status and professional activity could also influence the climacteric syndrome, which means that the climacteric condition it is individual, varying for each woman.

With regard to practice of physical exercise Lópes-Alegria and Lorenzi<sup>21</sup> and Terauchi et al.<sup>24</sup> noted that women who performed little or no physical activities had lower levels in life quality. This could be explained because the benefits of exercise in promotion and control of several primary and secondary comorbidities, like hypertension, diabetes mellitus, osteoporosis, and others. Avelar et al.<sup>36</sup> reported positive results in climacteric symptomatology after four and eight weeks of physical exercise in a group of eight women with ages between 52 and 58 years old.

The same authors<sup>21-24</sup> indicate that smoking was present in women with the highest complaints about hot flushes and low life quality. Although strongly related with estrogen deficiency, the hot flushes could be enhanced by nicotine side effects. In addition, this substance is associated with appearance of respiratory symptoms and cardiovascular disorders, increasing the death risk in climacteric women.<sup>37</sup>

Duffy et al.<sup>14</sup> also pointed out that doubts regarding this period are frequent, being necessary to redress their curiosity about what is happening in their body. They seek information among their family and friends and, in rare situations, with health professionals. Otherwise this study observed that most of the women wished more support by physicians and nursing professionals.

The health professionals, especially nurses, perform a primary function on the attending, through listening, hospitality, and most important with health education measures, aiming to assist these women in a holistic way. It is fundamental that the health promotion takes into account the participation of women themselves, in a way that may also promote their own health including all the biopsychosocial aspects, as active and empowered subjects.<sup>29</sup>

## Conclusion

The integrative review indicates that the signals and symptoms that appear in climacteric period could modify the life quality of women, modifying their biopsychosocial well-being and suggest that the presence of a qualified professional may reduce, or even revert this negative scenario.

It should be pointed out the importance of a proper knowledge about the therapies used in climacteric period by the professionals, to ensure that your conduct be guided by optimization of treatment and improvement in life quality, promoting shelter, support, comfort and safety.

For authors, the area involving the health of climacteric women is a vast and important field that need to be better explored (and occupied) by the Brazilian health professional, from a theoretical, research and assistance point of view.

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GPM contributed to the design of the study, data analysis and article writing. AMC contributed to the design of the study, data analysis and article writing.