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Endometriosis and quality of life: an implication on psychological well-being

Laila Ezzat
MD, Department of Obstetrics and Gynecology, Aswan University, Aswan, Egypt

Abstract
Endometriosis (E) is a chronic, benign, estrogen-dependent inflammatory disease affecting approximately 10% of reproductive age women and 35–50% of women with infertility and pelvic pain (PP). It is defined as the presence of endometrial like tissue (glands and stroma) outside the uterus, which induces a chronic inflammatory reaction, scar tissue, and adhesions that may distort a woman's anatomy of the pelvis.
Association between (E) and (CPP) is suggested by the observation that among women who undergo laparoscopy, (E) is found in 1/3 who undergo surgery for (CPP). This is an evidence based narrative review conducted by searching Medline up to (2017) and other online articles from PubMed, by using terms like (E), quality of life, Chronic pelvic pain, pain scales and psychology. This reviw concluded that Experiencing endometriosis symptoms is associated with lower health-related quality of life (HRQL). Importantly, as symptom severity and number of symptoms increase, HRQL further deteriorates.

Keywords: endometriosis, symptoms, associated, HRQL, symptom, deteriorates

Introduction

Endometriosis (E) is a chronic, benign, estrogen-dependent inflammatory disease affecting approximately 10% of reproductive age women and 35–50% of women with infertility and pelvic pain (PP) [1].
A debilitating disease with symptoms of dysmenorrhea, dyspareunia, and chronic pain in the pelvis (CPP) [2]. It is defined as the presence of endometrial like tissue (glands and stroma) outside the uterus, which induces a chronic inflammatory reaction, scar tissue, and adhesions that may distort a woman's anatomy of the pelvis [3]. This associated symptoms can impact the patient's general physical, mental, and social well-being [3]. It is estimated to occur in roughly 6–10% of females [4]. It is most common in those in their thirties and forties; however, can begin in girls as early as 8 years [5].
Visible manifestations of (E) are whitish plaques in peritoneum. Foci of endometrial tissue are small subserosal nodules with a brown appearance on gross examination; termed powder burns, they are seen on laparoscopy. After that, the repeated hemorrhaging can produce extensive fibrosis surrounding the endometrial tissue, which can result in adhesions to adnexal structures or to bowel and can obliterate cul-de-sac of the pelvis [6].
Association between (E) and (CPP) is suggested by the observation that among women who undergo laparoscopy, (E) is found in 1/3 who undergo surgery for (CPP) [7].
Typical (E) is triad (dyspareunia, dysmenorrhea and infertility) has a direct impact on the lives of women in different areas, whether social, physical or psychological impact [8].
Given the range of factors triggered by (endo.), it must examine the quality of life (QL) of the women affected, how the symptoms of the disease have impacted their daily life.
Because of the great repercussion of (E) on different aspects of life and health of women, it is necessary to understand the confrontation mechanisms of the disease for patients as well as the impact on the quality of their lives. This can determine the improvement of care and the quality of humanization addressed to women from diagnosis to management [9, 10]. The purpose of this review, therefore, is to summarize the translational research that has recently exploded on this issue (E) pain and (QL) also effect on social relations and psychological well-being and to identify future directions.

Methods

Search Strategy and Selection Criteria Initially searched "Pubmed, and Medline" for relevant literature using the terms "endometriosis", "quality of life", "Chronic pelvic pain", " pain scales" and "psychology" It included observational, retrospective and prospective studies, controlled clinical trials and RCTs; comparative or non-comparative studies, multicenter and single-center studies were all included. for studies published up to 2017. Although those papers provided the basis for this review, for detailed understanding of the topic the review extended the search to much older yet frequently referred articles.

Results

(QL) among (E) women Women form the most important fundamentals of a society's health and hygiene; however, they face many various crises and problems throughout their lives that can critically affect the general hygiene of the community [11].

The (E) is one of the prevalent diseases highly affect women's (QL) during childbearing ages. Eighty nine million women of reproductive ages suffer from (E), but the true extent of (E) has remained unknown [12].

The (E) can cause side effects such as severe pelvic pain, painful intercourses, abnormal uterine bleeding, painful menstruation, and decreased fertility. This can negatively affect women's ability to work and have familial relations, and reduce their self-confidence [13]. Also, it frequently brings the patients to the medical centers. One of the most common proplems of (E) is dysmenorrhea. The prevalence of dysmenorrhea varies from 18 to 81 percent depending on the measuring scale [14, 15].

In addition French reported that the dysmenorrhea not only as one of the common problems during the childbearing ages that force women to take days off work, but also emphasizes the necessity of utilizing methods to remove this symptom [16].

Barnard defines the (E) pain as a much more persistent pain along with cramps or pelvic pains in the beginning or near the end of pain episode [17]. A qualitative study by Denny concerning women suffering from (E), it is stated that women have used words such as extremely severe, killing, and unbearable to describe that pain [18]. Since there is no effective cure for (E), the medical and surgical treatments are more considered to achieve pregnancy, reduce the symptoms, and prevent the disease complications [19]. (E) and pain The main symptoms of(E) is pain. There are classically three types of pain related to (E): dysmenorrhea, deep dyspareunia and non-menstrual chronic pelvic pain. Firstly Dysmenorrhea is pelvic pain associated with menstrual bleeding, while deep dyspareunia is pelvic pain during deep sexual penetration both present with repeated acute pain attacks. Chronic pelvic pain has been defined as non-menstrual pelvic pain of more than 6 months duration that is severe enough to cause functional disability or require medical or surgical intervention [20].

Definition of Chronic pelvic pain may be more specified and some authors exclude severe dysmenorrhea and deep dyspareunia, but other experts recommend a wider definition that includes severe dysmenorrhea, deep dyspareunia and all other painful symptoms. Difficulty lies not only in the definition of the type of pain related to (E) but also in the evaluation of this pain. The Pain is a subjective and complex experience, the understanding of which requires a good description of its individual characteristics for each woman [20].

The non-menstrual chronic pelvic pain may persist for much of the month or only during specific times, such as at ovulation. Some women have additional painful symptoms such as, dyschezia and dysuria other chronic musculoskeletal conditions. All these pain symptoms and their chronicity, patterns in relation to the menstrual cycle and association with other types of visceral pain, ultimately reflect changing actions of the central nervous system [21].

The definitive criteria determining which, if any, (E) lesions cause pain symptoms are lacking. In carefully documented studies, location and extent of lesions bear little relation to location or amount of pain a woman experiences [22]. Problems with pain assessments The classification system of (E) documents surgical findings, but is not useful for predicting outcomes related to infertility or pain for three causes. 1st, pain information is not noted on the form and thus comparison between pain location and lesion location is inconsistently documented. 2nd, most clinical studies of pain and (E)summarize the American Society for Reproductive Medicine classification as a measure of disease extent, but do not provide details about lesion extent. 3rd, change in (E) score has been used to assess treatment effect with the assumption, but no evidence, that lesion score correlates with the score of pain [20].

Clinicians are often perplexed when setting up a trial on (E) as to how to adequately assess (E)-related pain. In order to clarify this point the objective is to identify pain used in clinical (E) studies, for follow up treatment of (E) related pain. Pain scales Visual analog scale. The visual analog scale was used most frequently, with a total of 167 publications identified. The visual analog scale consists of a 10 cm long horizontal line with its extremes marked as 'no pain' and 'worst pain imaginable' (Fig. 1). Every patient ticks her pain level on the line and the distance from 'no pain' on the extreme left to the tick mark is measured in millimeters yielding a pain score from 0 to 100. This scale can be used for each type of pain, namely dysmenorrhea, dyspareunia, chronic pelvic pain and dyschesia. This self-report of pain is considered as the 'gold standard' of pain assessment [23].

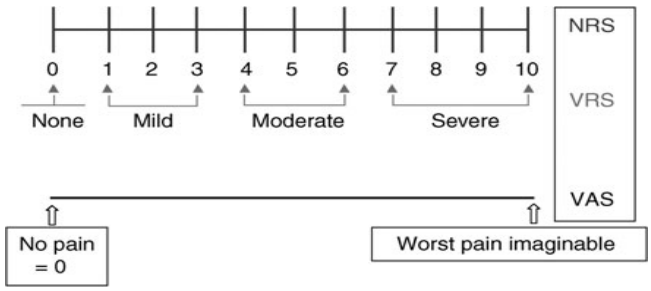

Fig 1: Visual analog scale, NRS (numeric rating scale) and VRS (verbal rating scale).

Numerical rating scale. A total of 33 publications were found to have used it. Numerical Rating Scale is a segmented numerical version of the Visual analog scale in which a respondent selects a whole number (0–10) that best reflects the intensity of the pain. The common format is a horizontal bar or line. As the Visual analog scale, the NRS is anchored by terms describing pain severity extremes. This scale can also be used for each type of pain [24]. Verbal rating scales. A total of 48 publications were found to have used Verbal Rating Scales. Verbal Rating Scales use categories to differentiate pain intensity. Wide variability of terms used to describe each category and the rating may be divided into four (0–3) or six (0–5) categories. Patients score their pain intensity from absent (0) to severe (3) or from none (0) to very severe (5) [25].

Other scales B&B score, McGill Pain Questionnaire, and research and Milsom's scale, Detailed questionnaire of dysmenorrhea, Endometriosis pain and bleeding diary and Modified Brief Pain inventory-short form An implications of (E) – related pain treatments There are three types of treatment alleviate pain in women with (endo.): non-steroidal anti-

inflammatory drugs and other analgesics, hormonal agents and surgical treatment. There is fact that non-steroidal anti-inflammatory alleviate pain in some women suggests that (E) increases pro-inflammatory agents that, in turn, contribute to pain. Although much is known about how these agents affect lesions little is known about how pro-inflammatory factors contribute to pain symptoms other than the consensus that their release into peritoneal fluid could activate nearby sensory fibers, thereby eliciting pain [26].

Also other factors are likely involved because non-steroidal anti-inflammatory drugs are often ineffective, even when combined with surgical removal of (E) or hormonal treatment [27].

How hormones exert their effects on pain in (E) is poorly understood. For example, whereas 'progesterone resistance' may be important in the development of (E), whether (E) associated pain stems from 'progesterone resistance' is unknown. In addition, hormonal treatments do not alleviate pain in all women with the disease [28].

There is fact that surgical removal or destruction of lesions alleviates pain in some patients indicates that lesions contribute to pain, but how they do so is poorly understood. 1st, seemingly complete surgical removal fails to alleviate pain for at least a year in up to half of carefully selected diseased women. 2nd, diseased women whose pain was alleviated by surgically treating lesions, pain often returns, sometimes without evidence of new (E). 3rd, the severity of pain symptoms does not correlate with extent of lesions. 4th, diseased women with the least amount of lesions,, appear more likely to re-experience pain soon after surgical treatment. Thus, pain symptoms experienced by those with few lesions may reflect a remodeling of the central nervous system that is not affected by removing those lesions. 5th, absence of tissue diagnosis, especially with minimal or mild (E), it is unknown whether these women have (E) and, thus, whether their potential lesions contribute to their pain level. 6th, as surgery of (E) is likely operator-dependent, not only may some surgeons be more skilled in completely removing lesions, but skill in recognizing variable lesion appearance that may different. 7th, some lesions are associated with pain more than others, such as deep infiltrating disease versus (E) of the ovaries (29). (E) Related symptoms and psychological well-being Psychology is the science of behavior and mind, including conscious and unconscious phenomena, as well as feeling and thought. It is an academic discipline of immense scope and diverse interests that, when taken together, seek an understanding of the emergent properties of brains, and all the variety of epiphenomena they manifest.

Psychological factors can impact the multidimensional experience of pain by serving to decrease or increase the subjective perception of pain and adjustment to ongoing pain-related disability. Affective factors usually include more negative emotions, such as depression, pain-related anxiety, and anger. Cognitive factors include catastrophizing, fear, helplessness, decreased self-efficacy, pain coping, readiness to change, and acceptance.

(Endo.) Is associated with chronic pain (CP), and there is a wealth of research into the psychology of pain. It is generally accepted that psychology influences how we perceive pain.

(CP) significantly predicts onset of new depression, and depression significantly predicts onset of new (CP) and other medical complaints. The prevalence estimates of major depression in (CP) vary from 5% to 87%. In general, most systematic reviews on the relationship between pain and depression suggest that (CP) precedes depression.

Also depression, anxiety related to pain is an important factor involved in maladaptive responses, behavioral interference, and affective distress and is closely related to avoidance activities, which promote ongoing pain. Pain beliefs (pain-related fear and self-efficacy), anger, and passive coping are important affective factors and contribute to maladaptive behaviors. The prevalence of anxiety disorders in (CP) is 18% to 21% (30).

Recently psychology has begun to be included in an understanding of health. Based on what we already know from psychology, we can make some guesses about its role in (E).

(E) have an effect on fertility. Infertility has psychological effects in terms of anxiety and stress, depression and self-esteem. Many women with (E) must cope with infertility as well as the (E) itself. The impotence can affect feelings of masculinity and sexual identity for men. Because (E) can cause dyspareunia, women with the disease may have to cope with lack of sex or sexual pleasure. All this have significant effects on women's feelings of her femininity.

All of the aspects of psychology which are involved in any illness, (E) conceder a unique set of possible psychological issues to be taken into account in our understanding of the disease. Health Psychology suggests that we should think about human beings as complex systems, and that health and illness should not be viewed as having a single causal factor (31).

Experiencing endometriosis symptoms is associated with lower health-related quality of life (HRQL). Importantly, as symptom severity and number of symptoms increase, HRQL further deteriorates [32].

Discussion

Recently, there has been growing interest on the effect of(E) in HRQL. Women are increasingly willing to be informed of the treatment options and decide on how best to adapt to their requirements. The qualitative studies have shown that symptoms of (E) have substantial impact on the physical, emotional and social well-being of patients that were affected during the most their productive years [33].

Pain can be cyclical or chronic, and often disabling, presenting itself as the most pronounced complaint having an impact on every aspect of daily life, like sleeping, eating or moving. Evaluate the complaint isolated pain in patients with (E) is difficult to assess in women with (E), as the site of the disease and the type of pain are variable and generate numerous questions and daily graded recitations of how trustworthy are in the final [34, 35]. The intensity of symptoms is directly related to the size and location of outbreaks and the disease stage. The intensity of pain associated with (E) occurs not only due to the staging of the disease but also because of the symptoms manifesting time, and may be influenced by other variables such as psychosocial factors [34]. Dyspareunia may originate from pressure on the endometrial nodules embedded in fibrotic tissue, traction scars, inelastic parametrium and immobilization of posterior uterine pelvic structures. Women with (E) have reported having less sex and more frequent interruption of intercourse due

to pain. 50% of the women reported continue to suffer from dyspareunia, with significant effect on QL [33].

The existence of symptomatic (E) has physical, mental and adverse impact on the social well-being and thus has a negative effect on HRQL. The impact includes the areas on fertility, sexuality, ability to work and maintain personal relationships intact [36].

The reduction in QL in this population may be explained by the complexity of the etiology and manifestations of the disease; non-responsiveness of some patients to interventions; pain as a major complain [37].

The managements that only aims to eradicate the underlying condition is not sufficient. Also seeking to improve the QL of these women, medical care should also address the emotional, sexual and social problems that come with the (E). So in addition to continued improvement of surgical and medical therapy techniques, future directions of treatment should also include teaching patients how to deal with chronic pelvic pain, to explore ways to have sexual intercourse without pain and to teach patients to strengthen relations with its partners and friends so that they are in solidarity in dealing with the (E) [38].

Treatment of post-diagnostic healthcare needs to be more holistic. This should be clarified by an understanding of the multidimensional (E) impact and supported by a bio psychosocial approach that includes emotional support, stress reduction, social support, coping strategies, psychosexual treatment and focus on QL issues, sex and relationships, control of pain and career counseling [39].

Conclusions

(E) Affects the everyday lives of women, hindering their daily activities, in personal relationships, and interferes with the reproductive capacity. Therefore, to improve the QL of the woman who has (E), it is first necessary to understand the patients according to their clinical condition, and which appropriate management she should undergo, Experiencing (E) symptoms is associated with lower HRQL and psychological well-being. Importantly, as symptom severity and number of symptoms increase, HRQL further deteriorates which is markedly affect patient psychology.

References

1. Giudice C. Endometriosis. The New England Journal of Medicine. 2010; 362(25):2389-2398.
2. Carneiro MM, Filogônio ID, Costa LM, De Ávila I, and Ferreira MC. Accuracy of clinical signs and symptoms in the diagnosis of endometriosis. Journal of Endometriosis. 2010; 2(2):63-70.
3. Kennedy S, Bergqvist A, Chapron C, D'Hooghe T, Dunselman G, Saridogan E, *et al*. ESHRE guideline on the diagnosis and management of endometriosis. Hum Reprod. 2005; 20(10):2698-704
4. Bulletti C, Coccia ME, Battistoni S, Borini A Endometriosis and infertility. J Assist. Reprod. Genet. 2010; 27(8):441-7.
5. McGrath, Patrick J, Stevens, Bonnie J, Walker, Suellen M, *et al*. Oxford Textbook of Paediatric Pain. OUP Oxford, 2013, 300.
6. Daly S. (October18, 2004). Endometrioma/Endometriosis. WebMD. Retrieved, 2006.
7. Howard FM. Endometriosis and mechanisms of pelvic pain. J Minim Invasive Gynecol. 2009; 16:540-550.
8. Fourquet J, Gao X, Zavala D, Orengo JC, Abac S, Ruiz A, *et al*. Patients' report on how endometriosis affects health, work, and daily life. Fertil Steril. 2010; 93:2424-8.
9. Souza CA, Oliveira LM, Scheffel C, Genro VK, Rosa V, Chaves MF, *et al*. Quality of life associated to chronic pelvic pain is independent of endometriosis diagnosis – a cross-sectional survey. Health Qual Life Outcomes. 2011; 9:41.
10. Ana Luiza Leite Ferreira a, Maria Misrelma Moura Bessa ab,∗, Jefferson Drezett b, Luiz Carlos de Abreu Quality of life of the woman carrier of endometriosis: systematized review reprodclim. 2016; 31(1):48–54
11. Noghrekar M. Health, Hygiene and Medical education. Tehran: Moallef Publishing Co, 2003.
12. Khadem Jalali N, Mazlouman SH. Study of Endometriosis Related Infertility, A comparative study. Acta Medical Iranica. 2004; 42(5):383-9.
13. Huntington A, Gilmour JA. A life shaped by pain: women and endometriosis. J Clin Nurs. 2005; 14(9):1124-32.
14. Preciado RR, Torres CJ, Zuniga Montiel JA, Martinez Chequer JC, Manterola AD, Garcia LA. Incidence of endometriosis in infertile women: clinical and laparoscopic characteristics. Ginecol Obstet Mex. 2005; 73(9):471-6.
15. Latthe P, Latthe M, Say L, Gulmezoglu M, Khan KS. WHO systematic review of prevalence of chronic pelvic pain: a neglected reproductive health morbidity. BMC Public Health. 2006; 6:177.
16. French L. Dysmenorrhea. Am Fam Physician. 2005; 15, 71(2):285-91.
17. Barnard A. Pain in obstetrics and gynecology. London: RCOG Press. Endometriosis and pain, 2001, 145-51.
18. Denny E. Women's experience of endometriosis. J Adv Nurs. 2004; 46(6):641-8.
19. Winkel CA, Scialli AR. Medical and surgical therapies for pain associated with endometriosis. J Womens Health Gend Based Med. 2001; 10(2):137-62.
20. Nicolas Bourdel1,2,*, Joa˜o Alves1, Gisele Pickering3, Irina Ramilo1, Horace Roman4, and Michel Canis Systematic review ofendometriosis pain assessment: how to choose a scale? Human Reproduction Update. 2015; 21(1):136-152.
21. Kennedy S, Bergqvist A, Chapron C, D'Hooghe T, Dunselman G, Greb R, *et al*. ESHRE guideline for the diagnosis and treatment of endometriosis. Hum Reprod. 2005; 20:2698-2704.
22. Vercellini P, Fedele L, Aimi G, Pietropaolo G, Consonni D, Crosignani PG. Association between endometriosis stage, lesion type, patient characteristics and severity of pelvic pain symptoms: a multivariate analysis of over 1000 patients. Hum Reprod. 2007; 22:266-271.
23. Gerlinger C, Faustmann T, Hassall JJ, Seitz C. Treatment of endometriosis indifferent ethnic populations: a meta-analysis of two clinical trials. BMC Women's Health, 2012a; 12:9.
24. Hawker GA, Mian S, Kendzerska T, French M. Measures of adult pain: Visual Analog Scale for Pain (VAS Pain), Numeric Rating Scale for Pain (NRS Pain), McGill Pain Questionnaire (MPQ), Short-Form McGill Pain Questionnaire (SF-MPQ), Chronic Pain Grade Scale

(CPGS), Short Form-36 Bodily Pain Scale (SF-36 BPS), and Measure of Intermittent and Constant Osteoarthritis Pain (ICOAP). Arthritis Care Res (Hoboken). 2011; 63(Suppl. 11):S240-S252.

25. Vercellini P, Aimi G, Panazza S, DeGiorgi O, Pesole A, Crosignani PG. A levonorgestrelreleasing intrauterine system for the treatment of dysmenorrhea associated with endometriosis: a pilot study. Fertil Steril 1999b; 72:505-508.
26. Kyama CM, Mihalyi A, Simsa P, Falconer H, Fulop V, Mwenda JM, Peeraer K, Tomassetti C, Meuleman C, D'Hooghe TM. Role of cytokines in the endometrial-peritoneal cross-talk and development of endometriosis. Front Biosci (Elite Ed). 2009; 1:444-454.
27. Allen C, Hopewell S, Prentice A, Gregory D. Nonsteroidal anti-inflammatory drugs for pain in women with endometriosis. Cochrane Database Syst Rev 2009; (2):CD004753.
28. Jenkins TR, Liu CY, White J. Does response to hormonal therapy predict presence or absence of endometriosis? J Minim Invasive Gynecol. 2008; 15:82-86.
29. Fauconnier A, Chapron C. Endometriosis and pelvic pain: epidemiological evidence of the relationship and implications. Hum Reprod Update. 2005; 11:595-606.
30. Ho PT, Li CF, Ng YK, Tsui SL, Ng KF. Prevalence of and factors associated with psychiatric morbidity in chronic pain patients. J Psychosom Res.2011; 70(6):541-547.
31. Ogden J. Health Psychology. Buckingham: Open University Press, 2000.
32. Ahmed Soliman M, Karin Coyne S, Erica Zaiser. Outcomes Research, Evidera, Bethesda, MD, USA The burden of endometriosis symptoms on health-related quality of life in women in the United States: a cross-sectional study Journal of Psychosomatic Obstetrics & Gynecology. 2017; 38:4.
33. Vercellini P, Frattaruolo MP, Somigliana E, Jones GL, Consonni D, Alberico D, *et al*. Surgical versus low-dose progestin treatment for endometriosis associated severe deep dyspareunia II: effect on sexual functioning, psychological status and health-related quality of life. Human Reprod. 2013; 28:1221-30.
34. Porto BT, Ribeiro HS, Galvão MA, Sekula VG, Aldrigui JM, Ribeiro PA. Classificac¸ão histológica e qualidade de vida em mulheres portadoras de endometriose. Rev Bras Ginecol Obstet. 2015; 37:87-93.
35. Stull DE, Wasiak R, Kreif N, Raluy M, Colligs A, Seitz C, *et al*. Validation of the SF-36 in patients with endometriosis. Qual Life Res. 2014; 23:103-17
36. Moradi M, Parker M, Sneddon A, Lopez V, Ellwood D. Impact of endometriosis on women's lives: a qualitative study. BMC Womens Health. 2014; 14:123.
37. Minson FP, Abrão MS, Sardá Júnior J, Kraychete DC, Podgaec S, Assis FD. Importância da avaliac¸ão da qualidade de vida em pacientes com endometriose. Rev Bras Ginecol Obstet. 2012; 34:11-5.
38. De Graaff AA, D'Hooghe TM, Dunselman GAJ, Dirksen CD, Hummelshoj L. WERF Endo Cost Consortium, *et al*. The significant effect of endometriosis on physical, mental and social wellbeing: results from an international cross-sectional survey. Human Reprod. 2013; 28:2677-85.
39. Culley L, Law C, Hudson N, Denny E, Mitchell H, Baumgarten M, *et al*. The social and psychological impact of endometriosis on women's lives: a critical narrative review. Hum Reprod Update. 2013; 19:625-39.