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Erectile Dysfunction and Quality of Life

Quek Kia Fatt
*School of Medicine & Health Sciences
Monash University Sunway Campus,
Selangor Darul Ehsan,
Malaysia*

1. Introduction

Erectile dysfunction (ED) affects the quality of life (QoL) of millions of people worldwide (Rosen et al., 2004; Aytac et al., 1999; National Institutes of Health Consensus Development Panel on Impotence, 1993). Nowadays, QoL measurements have become an important health status indicator in determining the general health of a person. ED affects a man's self-esteem, relationships with sexual partners, family, friends and colleagues and overall QoL.

The impact of ED on QoL has been becoming very important in the management of ED. QoL is used to assess the overall well-being of a person. Most of the medical treatments for ED now are focussing on improving QoL of patients (Althof, 2002).

2. What is quality of life/ health-related quality of life

2.1 Quality of life

QoL is defined as the perception of a person's life in the cultural and value systems in which he or she lives in regards to his or her goals, expectations and standards. QoL is affected by a person physical health, psychological state, level of independence, social relationships, environment and spiritual/religion/personal beliefs (WHOQOL, 1997).

QoL is a construct that encompasses physical function, psychological function, somatic sensation, social interaction, occupational and financial (Schipper et al., 1996). QoL is a good indicator of functional status and well-being of a person who undergone treatment for medical conditions (Stewart et al., 1989). QoL is becoming important in the evaluation of treatment and assessment of medical conditions (Wagner et al., 2000).

The overall QoL encompasses disease free, physical, emotional and social well-being (Tsai et al., 2008). QoL is one's ability to enjoy normal life activities. Some medical treatments can impair one's QoL while there are treatments can improve it.

The main goal of health care is to maintain or improve the QoL of people. Apart from health status, factors such as religion, environment, financial etc are important determinants of a person's QoL (Chen et al., 2005; WHOQOL, 1997).

2.2 Health-Related Quality of Life

Health-Related Quality of Life (HRQoL) is widely used among health care/medical professionals and is an important measure to assess a person's well-being (Wilson and Cleary, 1995). HRQoL includes the physical, functional, psychological, emotional, social function, mental and overall well-being of an individual (Fallowfield, 2009).

ED can affect both men and women, as they may suffer due to ED. Men will also suffer if their female partners have sexual dysfunction. These problems need to be look into as an overall health issue (Wagner et al., 2000).

3. ED and QOL

ED is associated with many psychosocial problems such as decreased QoL, low self-esteem, depression, anxiety, relationship problems, and marital tension (Althof, 2002; Litwin et al., 1998; Shabsigh et al., 1998). According to many studies, it is undeniable that ED has a strong impact on QoL (Tsai, 2008; Althof, 2002; Litwin et al., 1998).

There are many studies showing ED has an effect on QoL of men with this condition (Rosen et al., 2004; Althof 2002). Satisfaction in sexual life has been shown to affect overall satisfaction in life (Fugl-Meyer et al., 1997). Studies have shown that QoL parameters, especially social relationship and psychological well-being is affected by ED (Tsai et al., 2008; Litwin et al., 1998). Men with ED suffer deterioration in emotional well-being as noted in some studies (Litwin et al., 1998; Rosen, 1998).

One HRQOL study showed that ED is associated with physical function and emotional function (Litwin et al., 1998). This study also found that emotional domains are more affected than physical domains in patients with ED.

The majority of studies showed that men who suffer ED will have poor QoL especially in physical, mental and social domains (Sanchez-Cruz et al., 2003). Laumann et al. 1999 found there is an association between ED with health status and emotional function /problems /satisfaction, stress, deterioration of general health and physical satisfaction.

3.1 Young and old men

Younger males show lower social function as compared to older men and significant differences were observed between non-ED and ED subjects in young age group (Sanchez-Cruz et al., 2003). For example, it was found that men with ED tend to have lower QoL especially among young men compared to men without ED. One of the reasons is probably older men reported more sexual satisfaction than younger men as reported in one study (Gralla et al., 2008).

3.2 Sexual activity and QoL

Satisfaction in sexual activity is important in achieving good QoL. Sexual activity has been found to contribute to the overall QoL (Robinson & Molzahn, 2007). The psychological and social well-being of a man will be affected if he lacks sexual activity. However, there are some men who consider ED as a part of the aging process (Martin-Diaz et al., 2006).

3.3 ED with co-morbid condition and QoL

It is difficult to assess the real effect of ED on QoL because ED could be due to psychological or other medical conditions. It was also found that men with ED with co-morbid medical condition such as hypertension or diabetes mellitus have lower QoL (Rosen et al., 2004). Men with both comorbid medical condition and ED were found to have poorer QoL as they are more distressed and less satisfied with their sexual life (Berardis et al., 2002). It is noted that a man's age is associated with QoL as suggested by Guest & Gupta, (2002). The QoL of men with ED who are younger than 65 years was found to be poorer (Guest & Gupta, 2002) compared to men of similar age who do not suffer ED (Kind, 1999). Those men younger than 45 years old were found to have poorer QoL compared to those aged 74 years or older. The deterioration of QoL in the younger age group was noted due to deterioration of erectile function (Feldman et al., 1994). The QoL in the older group was much better because they focus less attention or less emphasize on sexual activity (Guest & Gupta, 2002). Men from all age groups who had co-morbid illnesses were found to have poorer QoL as compared to those without co-morbid illnesses. ED has been shown to have contributed to the deterioration of emotional well being and relationship but improved after treatment (Paige et al., 2001). Some men with ED tend to worry about their sexual performance thus this may lead to premature ejaculation (Williams et al., 1984).

3.4 ED and relationship with partner

ED can lead to the breakdown of relationships due to conflicts with their partners and this affects their general health and QoL (Guest & Gupta, 2002). Study has shown that approximately 12%-28% of men with ED believed ED is one of the main causes that affect their relationships (Guest & Gupta, 2002).

Men with ED who are single were found to be unable to develop a new relationship, thus, this affects their QoL (Guest & Gupta, 2002). This suggests ED may hinder them from forming a new relationship or may deteriorate their current relationship which may lead to separation.

However, sometimes relationships can be improved through other ways other than having sexual intercourse such as focusing family activities or having relaxation. Pharmacological intervention has shown to improve men's QoL e.g sildenafil citrate and transurethral alprostadil (Quirk et al., 1998; William et al., 1998; Kaiser et al., 1997).

3.5 Quality of life following treatment of ED

Several studies showed sexual function improves the QoL in both men and their partners following treatment (Rosen et al., 2004; Shabsigh et al., 2001). It has been shown that the mood, overall sexual function, satisfaction in relationships and their overall QoL improves after treatment of ED (Rosen et al., 2004).

The level of sexual life satisfaction which was noted to be low prior to treatment for ED, were significantly improved after treatment (Fugl-Meyer et al., 1997). Men with ED and depression, their QoL were also improved after undergoing treatment for depression (Muller & Benkert, 2001).

4. Anxiety

Anxiety is a feeling of worry, fear, nervousness and apprehension exhibited by psychological, and physiological state such as emotional, cognitive and behavioral symptoms. Anxiety due to daily activities may lead to distress and deterioration of normal activity (Corretti & Baldi, 2007).

Anxiety disorders include panic disorder (PD), specific and social phobia, obsessive-compulsive disorder (OCD), post-traumatic stress disorder (PTSD), acute stress disorder (ASD), and generalized anxiety disorder (GAD) (Corretti and Baldi, 2007).

The relationship between anxiety and sexual function is complex. However, anxiety and ED can have a two-way or bilateral relationship. Anxiety can cause sexual dysfunction and sexual dysfunction can cause anxiety. Sexual dysfunction and anxiety are not causally related. They may express differently but the symptoms may derive from one common source (Corretti and Baldi, 2007).

Anxiety contributes to the development of problems associated with ED. Psychological impact from ED can lead to uneasiness, distance and conflicts (Hedon, 2003). This will lead to low sexual contact, less time together and lack of communication between partners which can lead to deterioration of relationship (Hedon, 2003).

The prevalence of anxiety disorder were noted to be varies from 1.7% - 37% in men with ED (Mallis et al., 2005; Farre et al., 2004; Lee et al., 2000). Some studies showed there were some relationships or association between anxiety and ED (Corona et al., 2006; Sugimori et al., 2005).

4.1 ED and performance anxiety

If a man suffers some degree of ED, he may feel worried of the condition and this may lead to performance anxiety. Performance anxiety will affect men such as embarrassment if they are unable to perform, achieve erection or unable to satisfy their partners. They will feel disappointed and guilty, thus, this will affect their QoL.

When a person suffers from anxiety disorder, it is important to investigate his/her sexual life and vice-versa. Studies have shown that anxiety plays a major role in the development of ED.

There are many factors which can lead to anxiety and to ED. For example, job related stress and family problems (divorce, conflicts) which can increase anxiety thus leading to ED (Hedon, 2003).

Anxiety can impair sexual arousal/desire via increased sympathetic tone which leads to weak erection (Graziottin, 2000; Maggi et al., 2000; Kaplan, 1988). Anxiety can also impact orgasm where it can lead to premature ejaculation (PE) (Dunn et al., 1999; Zilbergeld, 1999; Hawton & Catalan, 1986). Anxiety can affect the ejaculation control through sympathetic hyperactivity (Williams, 1984; Wolpe, 1982).

Men who are anxious during sexual intercourse are found to be worried about their sexual performance and this affects their sexual satisfaction (Kaplan, 1989; Kaplan, 1974). There are

other studies which support these findings (Corona et al., 2006; Corretti et al., 2006; Tignol et al., 2006).

5. Depression

Depression can lead to feelings of fatigue, worthlessness, suicidal thoughts, agitation, weight loss or weight gain. It can be caused by grief, family and social isolation, physical, genetics, biological, psychological factors. All these contribute to the deterioration of QoL. The person may not sleep well and/or eat well and may resort to smoking, alcohol or drugs to overcome the depression.

Many studies have shown an association between ED and depression regardless of sociodemographic or co-morbidities (Shabsigh et al., 2006; Moreira et al., 2001; Araujo et al., 1998; Feldman et al., 1994). In a study by Araujo et al., 1999, subjects who were depressed were found to have a 1.82 times higher chance of getting ED compared with patients without depression. Another study showed men with ED were 2.6 times more likely to have depressive symptoms as compared to men suffering from benign prostatic hyperplasia (BPH) alone (Shabsigh et al., 1998).

Depression most of the time is due to the loss of mood/interest in daily activities. ED can affect the mood, family or partner relationships thus affecting QoL (Rosen et al., 2004).

Depression and ED is a two-way or bilateral relationship (Shabsigh et al., 2001; Araujo et al., 1998; Smith, 1998). ED has aetiology in affective components which were described in many studies (Smith, 1998; Barlow, 1986; Hengeveld, 1983; Jacobs et al., 1983). It was noted that depression may cause or exacerbate ED and that ED may cause depression. Until today, no one knows which one comes first. Patients presenting with ED should be screened for depression while patients with depression will need to be screened for ED (Araujo et al., 1998). One study by Nicolosi et al., 2004, found a relationship between ED, depression, sexual activity and sexual satisfaction.

ED associated with depression has been observed in many studies (Araujo et al., 1998). Men with ED tend to feel embarrassed, frustrated and sad. This will affect his self-esteem thus lead to depression. Men often associate their ability to perform sex with their manhood and self-esteem. When they are unable to perform, they will feel disappointed and this will lead to depression. If the condition is not treated, ED may affect his relationship with his partners, friends and family. If the men treated for depression, it may become worse as medication may have side effects on erection (Bartlik et al., 1999).

Depression is found to affect sexual performance as indicated in the Massachusetts Male Aging Study (MMAS) (Araujo et al., 1998). The findings of this study showed that those who are depressed are more likely to suffer moderate and severe ED (Araujo et al., 1998). This study also shows that the cognitive and behavioral factors may also contribute to sexual performance. Another study showed patients who were depressed are twice likely as the general population to have sexual dysfunctions (Angst, 1998).

Depressed men can be too critical of themselves. This will lead to performance anxiety and thus will hinder their ability to achieve an erection. Depression also can affect sexual drive (Heiman & Rowland, 1983; Bartlik et al., 1999) and sexual drive is important for helping

men to achieve an erection. Men with low sexual drive (libido) tend to have difficulties in achieving erection.

Depression is found to be associated with neurophysiological disturbances which can affect the autonomic nervous system. Due to this, the parasympathetic nervous system unable to assist the relaxation of the penile smooth muscle tissue which require for erection (Saenz de Tejada I, 1985). Men with severe depression can develop a reversible loss of nocturnal penile tumescence (Roose et al., 1982). Studies have shown depression can deteriorate the erectile function but improved following treatment with antidepressants (Nofzinger et al., 1993).

It was found that men with the severe depression had higher chance of getting moderate and severe ED (Melman & Gingell, 1999). The relationship between depression and ED is affected by the low frequency of sexual intercourse and poor sex life.

ED is one of the symptoms of depressive disorder which associated with deterioration or loss of sexual drive, erectile function, and sexual activity (Seidman et al., 2001). This condition will get worse if the person is on medications such as antidepressants which can cause ejaculation, erection, orgasm and libido problems (Nurnberg et al., 2001; Seidman & Roose, 2000; Rosen et al., 1999).

5.1 Depression, ED and treatment

Depression with ED or vice versa is treatable. With proper counseling, men will be able to overcome the depression and cope with ED as there are many treatment options available for ED.

The inability to achieve and maintain sexual performance often causes other problems apart from problems related to sexual activity. It is important for a man to seek help if he is experiencing depression or ED or both.

Studies have shown that treatment is successful in improving the QoL in men with ED co-morbid with depression.

6. Marital problem

Many men with ED will stay silent and not like to talk about their problems to others. Men with ED tend to think they are failures and thinking their partner is not happy. These men will find excuses to avoid having sex or having intimate relationships.

Some will find excuses or changing their topics of conversation to avoid talking about sex. When men start to withdraw themselves from their partners and others, they will be thinking of their ED problem. Thus, this may affect their daily activities and general health.

When a man is unable to perform sexual intercourse or unable to satisfy his partner's sexual needs, he may feel useless, embarrassed and guilty. Thus, he may find difficult to communicate with his partner about ED. ED affects a man's life and marriage and it was noted that ED contributed to one in five failed marriages (Wespes et al., 2002).

ED affects men psychologically. Because of miscommunication and misunderstanding, the partner may abandon him. Men tend to blame their partner for leaving them due to ED.

Men are found to be sensitive in their relationships. Any withdrawals from the relationship due to ED may affect their overall general health and well-being (National Institutes of Health Consensus Development Panel on Impotence, 1993). The relationship between sexual and marital problems was more obvious in men compared to women as shown in one study (Rust et al., 1988).

From the partner point of view, the partner will feel unattractive, lonely, depressed and unwanted. The partner may think that their partner is having an affair. This becomes worse when men do not communicate with their partner regarding their ED. Many men refuse to seek medical advice due to apprehension. Apart from that there are also misunderstanding and poor communications which may lead to the relationship breakdown with their partners.

The prevalence of sexual dysfunction was noted higher in women especially when their partner suffering from ED. Women who have been sexually active before will suffer some sexual dysfunction. The severity of ED can influence their partners' sexual satisfaction and frequency of orgasm (Fisher et al., 2005). Women suffer deterioration of sexual desire, unable to achieve orgasm and dissatisfied with their sexual life when their partner suffering from ED. However, this improved after their partners' undergone treatment. One study has shown women whose partners who were on pharmacological therapy (e.g. PDE5 inhibitors) had more satisfying sexual satisfaction than those whose partners did not use pharmacological therapy (Fisher et al., 2005).

7. Summary

Although ED is not a life-threatening condition, it has an effect on not only the QoL of men but that of their sexual partners as well. The effect of ED on QoL is hard to determine because the dysfunction can be due to the psychological problem. However, ED can cause anxiety, sadness, depression, low self-confidence, low self-esteem, marital tension, deteriorating relationships, guilt, anger, frustration etc. All these will lead to deterioration of QoL.

It is important for men to discuss their anxiety regarding their ED with their partners. It will help them to reduce their fears while their partner will be able to help them to cope. Men should realize that they are not alone in ED. There are many avenues where they can seek help where they are many qualified ED medical professionals who can provide counseling and also there are treatments and guidelines available in the management of male sexual dysfunction (Wespes et al., 2009). Men should communicate with their partners because they need moral support to overcome their ED problem. When it comes to HRQoL for men, it is vital to assess their erectile function.

8. References

- Althof SE. Quality of life and erectile dysfunction. *Urology* 2002; 59(6): 803-810.
- Angst J. Sexual Problem in Healthy and Depressed Persons. *International Clinical Psychopharmacology*. 1998; 13(6):S1-S4.
- Araujo AB, Durante R, Feldman HA, Goldstein I, McKinlay JB. The Relationship Between Depressive Symptoms and Male Erectile Dysfunction: Cross-Sectional Result From the Massachusetts Male Aging Study. *Psychosomatic Medicine*. 1998; 60(4): 458-465

- Aytac IA, McKinlay JB, Krane RJ. The likely worldwide increase in erectile dysfunction between 1995 and 2025 and some possible policy consequences *British Journal Urology International*. 1999; 84(1): 50–6.
- Barlow DH. Causes of sexual dysfunction: The role of anxiety and cognitive interference. *Journal of Consulting and Clinical Psychology*. 1986; 54(2):140-148
- Bartlik B, Kocsis JH, Legere R, Villaluz J, Kossoy A, Gelenberg AJ. Sexual dysfunction secondary to depressive disorder. *Journal Gender Specific Medicine*. 1999; 2(2): 52-60.
- Berardis GD, Franciosi M, Belfiglio M, Di Nardo B, Greenfield S, Kaplan SH, Pellegrini F, Sacco M, Tognoni G, Valentini M, Nicolucci A; for the Quality of Care and Outcomes in Type 2 Diabetes (QuED) Study Group. Erectile Dysfunction and Quality of Life in Type 2 Diabetic Patients. A serious problem too often overlooked. *Diabetes Care*. 2002; 25(2):284–291.
- Chen TH, Li L, Kochen MM. A systematic review: How to choose appropriate health-related quality of life (HRQOL) measures in routine general practice? *Journal of Zhejiang University Science*. 2005; 6B(9): 936–940.
- Corretti G, Baldi I. The Relationship Between Anxiety Disorders and Sexual Dysfunction. *Psychiatric Times*. 2007; 24(9).
- Corretti G, Pierucci S, De Scisciolo M, Nisita C. Comorbidity between social phobia and premature ejaculation: study on 242 males affected by sexual disorders. *Journal of Sexual and Marital Therapy*. 2006;32(2):183-187.
- Corona G, Mannucci E, Petrone L, Ricca V, Balercia G, Giommi R, Forti G, Maggi M. Psychobiological correlates of free-floating anxiety symptoms in male patients with sexual dysfunctions. *Journal of Andrology*. 2006; 27(1):86-93.
- Dunn KM, Croft PR, Hackett GI. Association of sexual problem with social, psychological, and physical problems in men and women: a cross sectional population survey. *Journal of Epidemiology and Community Health*. 1999;53(3):144-148.
- Fallowfield L. What is quality of life? *Health Economics* 2nd ed., Hayward Medical Communications, pp1-7.
- Farre JM, Fora F, Lasheras MG. Specific aspects of erectile dysfunction in psychiatry. *International Journal of Impotence Research*. 2004; 16(suppl 2):S46-S49.
- Feldman HA, Goldstein I, Hatzichristou DG, Krane RJ, McKinlay JB. Impotence and its medical and psychosocial correlates: results of the Massachusetts Male Aging Study. *Journal of Urology*. 1994; 151(1): 54–61.
- Fisher WA, Rosen RC, Eardley I, Sand M, Goldstein I. Sexual experience of female partners of men with erectile dysfunction: the Female Experience of Men's Attitudes to Life Events and Sexuality (FEMALES) study. *Journal of Sexual Medicine*. 2005;2(5):675–684.
- Fugl-Meyer AR, Lodnert G, Branholm I-B, Fugl-Meyer KS. On life satisfaction in male erectile dysfunction. *International Journal of Impotence Research*. 1997;9(3): 141–148.
- Gralla O, Knoll N, Fenske S, Spivak I, Hoffmann M, Ronnebeck C, Lenk S, Hoschke B, May M. Worry, desire, and sexual satisfaction and their association with severity of ED and age. *Journal of Sexual Medicine*. 2008; 5(11):2646-2655.
- Graziottin A. Libido: The biologic scenario. *Maturitas*. 2000;34:S9-S16.

- Guest JF, Das Gupta R. Health-related quality of life in a UK-based population of men with erectile dysfunction. *Pharmacoeconomics*. 2002; 20(2): 109-117.
- Hawton K, Catalan J. Prognostic factors in sex therapy. *Behaviour Research and Therapy*. 1986; 24(4):377-385.
- Hedon F. Anxiety and erectile dysfunction: a global approach to ED enhances results and quality of life. *International Journal of Impotence Research*. 2003; 15(2): S16-S19.
- Heiman JR, Rowland DL. Affective and physiological sexual response patterns: The effects of instructions on sexually functional and dysfunctional men. *Journal of Psychosomatic Research*. 1983; 27(2):105-116.
- Hengeveld MW. Erectile dysfunction: A sexological and psychiatric review. *World Journal of Urology*. 1983; 1(4): 227-232.
- Jacobs JA, Fishkin R, Cohen S, Goldman A, Mulholland SG. A multidisciplinary approach to the evaluation and management of male sexual dysfunction. *Journal of Urology*. 1983; 129(1):35-38.
- Kaiser FE, Weldon K, Gesundheit N, MUSE Study Group. Treatment of erectile dysfunction with transurethral alprostadil: effects on quality of life. *Journal of the American Geriatric Society*. 1997; 45: A33.
- Kaplan HS. *The New Sex Therapy*. New York: Brunner-Mazel; 1974.
- Kaplan HS. Anxiety and sexual dysfunction. *Journal of Clinical Psychiatry*. 1988;49(Suppl 21-5): 21-25.
- Kaplan HS. *PE: How to Overcome Premature Ejaculation*. New York: Brunner-Mazel; 1989.
- Kind P, Hardmann G, Macran S. UK population norms for EQ-5D. Discussion paper 172, 1999. York: University of York.
- Laumann EO, Paik A, Rosen RC. Sexual dysfunction in the United States. Prevalence and predictors. *Journal of the American Medical Association*. 1999; 281(6):537-544.
- Lee JC, Surridge D, Morales A, Heaton JPW. The prevalence and influence of significant psychiatric abnormalities in men undergoing comprehensive management of organic erectile dysfunction. *International Journal of Impotence Research*. 2000; 12(1): 47-51.
- Litwin MS, Nied RJ, Dhanani N. Health-related quality of life in men with erectile dysfunction. *Journal of General Internal Medicine*. 1998; 13(3):159-166.
- Maggi M, Filippi S, Ledda F, Magini A, Forti G. Erectile dysfunction: from biochemical pharmacology to advances in medical therapy. *European Journal of Endocrinology*. 2000;143(1):143-154.
- Mallis D, Moysidis K, Nakopoulou E, Papaharitou S, Hatzimouratidis K, Hatzichristou D. Psychiatric morbidity is frequently undetected in patients with erectile dysfunction. *Journal of Urology*. 2005;174(5):1913-1916.
- Martin-Diaz F, Reig-Ferrer A, Ferrer-Cascales R. Sexual function and quality of life in hemodialysis male patients. *Nefrologia*. 2006;26(4):452-460.
- Melman A, Gingell JC. The epidemiology and pathophysiology of erectile dysfunction. *Journal of Urology*. 1999;161(1):5-11.
- Muller MJ, Benkert O. Lower self-reported depression in patients with erectile dysfunction after treatment with sildenafil. *Journal of Affective Disorders*. 2001; 66(2-3): 255-261.

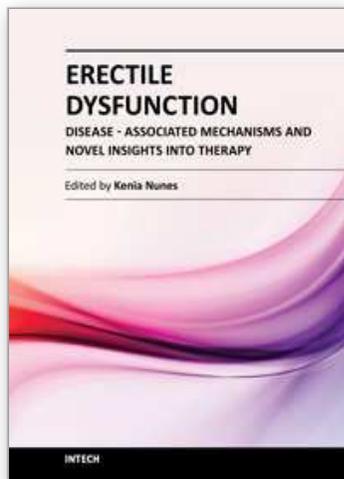
- Moreira EDJr, Najjar Abdo CH, Torres EB, Lisboa Lobo CF, Saraiva Fittipaldi JA. Prevalence and correlates of erectile dysfunction: results of the Brazilian study of sexual behavior. *Urology*. 2001; 58(4): 583-588.
- Nicolosi A, Moreira ED Jr, Villa M, Glasser DB. A population study of association between sexual satisfaction and depressive symptoms in men. *Journal of Affective Disorder*. 2004; 82(2):235-243.
- National Institutes of Health Consensus Development Panel on Impotence. NIH Consensus Conference: Impotence. *Journal of the American Medical Association*. 1993; 270(1): 83-90.
- Nofzinger EA, Thase ME, Reynolds CF 3rd, Frank E, Jennings JR, Garamoni GL, Fasiczka AL, Kupfer DJ. Sexual function in depressed men. Assessment by self-report, behavioral, and nocturnal penile tumescence measures before and after treatment with cognitive behavior therapy. *Archives of General Psychiatry*. 1993; 50(1): 24-30.
- Nurnberg HG, Gelenberg A, Hargreave TB, Harrison WM, Siegel RL, Smith MD. Efficacy of sildenafil citrate for the treatment of erectile dysfunction in men taking serotonin reuptake inhibitors. *American Journal of Psychiatry*. 2001; 158(11): 1926-1928.
- Paige NM, Hays RD, Litwin MS, Rajfer J, Shapiro MF. Improvement in emotional well-being and relationships of users of sildenafil. *Journal of Urology*. 2001; 166(5): 1774-1778.
- Quirk F, Giuliano F, Pena B, Mishra A, Smith MD, Hockey H. Effect of sildenafil (Viagra) on quality of life parameters in men with broad-spectrum erectile dysfunction. *Journal of Urology*. 1998; 159 (Suppl. 260): A 998
- Robinson JG, Molzahn AE. Sexuality and quality of life. *Journal of Gerontology Nursing*. 2007;33(3):19-27.
- Roose SP, Glassman AH, Walsh BT, Cullen K. Reversible loss of nocturnal penile tumescence during depression: a preliminary report. *Neuropsychobiology*. 1982; 8(6): 284-288
- Rosen RC. Quality of life assessment in sexual dysfunction trials. *International Journal of Impotence Research*. 1998;10(Suppl 2):S21-3; discussion S24-6.
- Rosen RC, Lane RM, Menza M. Effects of SSRIs on sexual function: a critical review. *Journal of Clinical Psychopharmacology*. 1999; 19(1): 67- 85.
- Rosen RC, Fisher WA, Eardley I, Niederberger C, Nadel A, Sand M. The multinational men's attitudes to life events and sexuality (MALES) study: I. Prevalence of erectile dysfunction and related health concerns in the general population. *Current Medical Research and Opinions*. 2004; 20(5): 607-617.
- Rosen RC, Seidman SN, Menza MA, Shabsigh R, Roose SP, Tseng LJ, Orazem J, Siegel RL. Quality of life, mood, and sexual function: a path analytic model of treatment effects in men with erectile dysfunction and depressive symptoms. *International Journal of Impotence Research*. 2004; 16(4): 334-340.
- Rust J, Golombok S, Collier J. Marital problems and sexual dysfunction: how are they related? *British Journal of Psychiatry*. 1988; 152:629-631.
- Sanchez-Cruz JJ, Cabrera-Leon A, Martin-Morales A, Fernandez A, Burgos R, Rejas J. Male Erectile Dysfunction and Health-Related Quality of Life. *European Urology*. 2003; 44(2): 245-253.
- Saenz de Tejada I, Goldstein I, Blanco R, Cohen RA, Krane RJ. Smooth muscle of the corpora cavernosae: Role in penile erection. *Surgical Forum*. 1985;36:623-624.

- Schipper H, Clinch JJ, Olweny CLM. Quality of life studies: definitions and conceptual issues. In: Spilker B, ed. *Quality of life and pharmacoeconomics in clinical trials*. 2nd ed. Philadelphia, PA: Lippincott-Raven; 1996: 11-23
- Seidman SN, Roose SP, Menza MA, Shabsigh R, Rosen RC. Treatment of erectile dysfunction in men with depressive symptoms: Results of a placebo-controlled trial with sildenafil citrate. *American Journal of Psychiatry*. 2001; 158(10): 1623-1630.
- Seidman SN, Roose SP. The relationship between depression and erectile dysfunction. *Current Psychiatry Reports*. 2000; 2:201-205.
- Shabsigh R, Klein LT, Seidman S, Kaplan SA, Lehrhoff BJ, Ritter JS. Increased incidence of depressive symptoms in men with erectile dysfunction. *Urology*. 1998; 52(5): 848-852.
- Shabsigh R, Zakaria L, Anastasiadis AG, Seidman AS. Sexual Dysfunction and Depression: Etiology, Prevalence, and Treatment. *Current Urology Reports*. 2001; 2(6): 463-467.
- Shabsigh R, Perelman MA. Men With Both Premature Ejaculation (PE) and Erectile Dysfunction (ED) Experience Lower Quality of Life Than Men With Either PE or ED Alone. In: Selected abstracts of presentations during the XVII World Congress of Sexology. *Journal of Sex Research*. 2006. 43(1): 2-37.
- Smith, AD. Psychologic factors in the multidisciplinary evaluation and treatment of erectile dysfunction. *Urologic Clinics of North America*. 1998; 15(1):41-51
- Stewart AL, Greenfield S, Hays RD, Wells K, Rogers WH, Berry SD, McGlynn EA, Ware JE Jr. Functional status and well-being of patients with chronic conditions. Results from the medical outcomes study. *Journal of the American Medical Association*. 1989; 262(7):907-913.
- Sugimori H, Yoshida K, Tanaka T, Baba K, Nishida T, Nakazawa R, Iwamoto T. Relationships between erectile dysfunction, depression, and anxiety in Japanese subjects. *Journal of Sexual Medicine*. 2005; 2(3):390-396.
- Tignol J, Martin-Guehl C, Aouizerate B, Grabot D, Auriacombe M. Social phobia and premature ejaculation: a case-control study. *Depression and Anxiety*. 2006; 23(3):153-157.
- Tsai TF, Chang LC, Hwang TIS. Effect of Erectile Dysfunction on the Health-Related Quality of Life of Elderly People. *Journal of Taiwan Urological Association*. 2008; 19(4): 216-221
- Wagner G, Fugl-Meyer KS and Fugl-Meyer AR. Impact of erectile dysfunction on quality of life: patient and partner perspectives. *International Journal of Impotence Research*. 2000; 12(Suppl 4): S144-S146.
- Wespes E, Amar E, Hatzichristou D, Montorsi F, Pryor J, Vardi Y; European Association of Urology. Guidelines on erectile dysfunction. *European Urology*. 2002; 41(1):1-5.
- Wespes E, Amar E, Eardley I, Giuliano F, Hatzichristou D, Hatzimouratidis K, Montorsi F, Vardi Y. Guidelines on Male Sexual Dysfunction: Erectile dysfunction and premature ejaculation. *European Association of Urology*. 2005.
- WHOQOL. Measuring Quality of life. The World Health Quality of Life Instrument (The WHOQOL-100 and The WHOQOL-BREF), World Health Organization, Geneva, 1997.
- Williams G, Abbou CC, Amar ET, Desvaux P, Flam TA, Lycklama a Nijeholt GA, Lynch SF, Morgan RJ, Muller SC, Porst H, Pryor JP, Ryan P, Witzsch UK, Hall MM, Place VA, Spivack AP, Todd LK, Gesundheit N. The effect of transurethral alprostadil on the

- quality of life of men with erectile dysfunction, and their partners. MUSE Study Group. *British Journal of Urology International*. 1998; 82(6): 847–854.
- Williams W. Secondary premature ejaculation. *Australian and New Zealand Journal of Psychiatry*. 1984;18(4):333-340.
- Wilson IB, Cleary PD. Linking clinical variables with health related quality of life. *Journal of the American Medical Association*. 1995;273(1):59-65.
- Wolpe J. *The practice of behaviour therapy*. Toronto: Pergamon; 1982.
- Zilbergeld B. *The New Male Sexuality*. New York: Bantam Books; 1999.

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Erectile dysfunction is a widespread problem, affecting many men across all age groups and it is more than a serious quality of life problem for sexually active men. This book contains chapters written by widely acknowledged experts, each of which provides a unique synthesis of information on emergent aspects of ED. All chapters take into account not only the new perspectives on ED but also recent extensions of basic knowledge that presage directions for further research. The approach in this book has been to not only describe recent popular aspects of ED, such as basic mechanism updates, etiologic factors and pharmacotherapy, but also disease-associated ED and some future perspectives in this field.

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University Campus STeP Ri
Slavka Krautzeka 83/A
51000 Rijeka, Croatia
Phone: +385 (51) 770 447
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Unit 405, Office Block, Hotel Equatorial Shanghai
No.65, Yan An Road (West), Shanghai, 200040, China
中国上海市延安西路65号上海国际贵都大饭店办公楼405单元
Phone: +86-21-62489820
Fax: +86-21-62489821

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