

# The psychology strategies for treating male patients with andrology diseases

Xue Wu

Mashang Center Hospital, Zhangdian, Zibo, Shandong, China  
zbwuxue@126.com

**Abstract:** *With the development of social economy, the biological-psychological-social medical model is gradually formed to treat andrology diseases. The problem of male reproductive and mental health is one of focuses in the medical community. Paying attention to the sub-health status and the quality of life is the direction of the development and effort of andrology science in future. The studies on the relationship between the psychological factors and male reproductive health can help to solve some problems related to the male's health. In this paper, the psychology strategies are discussed for treating male patients with andrology diseases.*

**Keywords:** *Andrology disease, Psychological regulation, Reproductive health, Strategies*

## 1. Introduction

Male infertility, chronic prostatitis, and sexual dysfunction are common diseases in andrology clinics, and most patients are young and middle-aged men <sup>[1, 2]</sup>. The traditional Chinese physician believes that "peace between Yin and Yang" means good health, and the imbalance of Yin and Yang will lead to disease <sup>[3, 4]</sup>. The etiology of male diseases is generally caused by the imbalance of Yin and Yang and metabolic disturbance. Due to the poor effect on treating these diseases and easy recurrence, andrology diseases not only bring physical discomfort to patients, but also cause harm to their mental health. Several kinds of psychological disorders promote the occurrence and development of andrology diseases, which seriously affect the quality of patients' life. The andrology diseases not only bring crisis to family, but also bring difficulties to the communication between patients and doctors <sup>[5]</sup>. In the recent years, the usage of psychotherapy has a significant effect on treating andrology diseases.

At present, the simple biomedical model is gradually developed to the biological-psychological-social medical model <sup>[6, 7]</sup>. There is a cross-penetration effect between psychology and sociology in andrology science. Compared with the other clinical disciplines, andrology science has significant personality characteristics and emotional factors. Therefore, it is one of the important topics in andrology science to systematically study the relationship between biological, psychological, social factors, and male diseases <sup>[8, 9]</sup>. Moreover, the psychological regulation should be further used to prevent the occurrence of andrology diseases.

## 2. Background of andrology psychological diseases

Andrological diseases are one kind of private diseases, especially involving sexual and reproductive diseases. Influenced by traditional ideas, patients are often shy about their own diseases. They are reluctant to talk to relatives and friends. The contradictory mentality makes patients often at a loss what to do. In addition, sexual function is closely related to the psychological activities, and psychological factors play a role in the pathogenesis of sexual dysfunction <sup>[10]</sup>. Andrology diseases affect family stability, and patients often face the emotional crisis and the risk of family disintegration. Therefore, the psychological pressure of patients is further aggravated by these states. In addition, the lack of physical health knowledge also further increased the psychological burden of patients.

## 3. Physiopathological mechanisms of psychological stress on male reproductive function

Normal psychological stress is based on the adaptation of personality psychology and social requirements. When an individual's tolerance to stress decreases or the intensity and duration of stress is

beyond the tolerance range of a specific individual, it will cause psychological and physiological damage. Due to their special social attributes and role factors, men are more prone to adverse psychological and physiological reactions. The change of contemporary society brings increasingly fierce competition to people. Some undesirable life events, such as conflicts of interests, troubles of economic conditions, lack of emotional communication, and deterioration of family relations, can lead to psychological pressure and have an impact on male physiology through psychological stress. The neuroendocrine-immune network system theory provides an opportunity to uncover the mechanism of physiopathological response in the male reproductive system that is caused by adverse psychological stress state. It has been proved that psychological stress and depression are related to the endocrine and immune system in human body<sup>[11, 12]</sup>. It easily causes the secretion disorders of nervous peptides, monoamines and other neurotransmitters, which leads to the dysfunction of hypothalamic-pituitary-gonad/adrenal axis. Finally, it affects men's reproductive endocrine and immune function, and easily leads to reproductive dysfunction. Through multivariate analysis of the depressed and worrying factors and semen, it is found that mental factors are one of reasons for the decline of sperm numbers<sup>[13]</sup>. In addition, the sharp changes of mood will also cause the increase of pituitary prolactin secretion, resulting in the decrease of male sexual desire or infertility.

#### **4. Psychotherapeutic strategies on treating andrology psychological diseases**

Psychological factors are one of the important factors affecting male reproductive health. As a social group, the bad psychological characteristics have certain universality and sociality. They are the psychological-social pathogenic factors affecting the human health, which should be paid attention to by the society, family and individuals. Sexual health education, psychological counselling and psychological treatment are effective ways to solve the psychological problems.

##### **4.1. Sexual health education**

Sexual health education plays an important role in the prevention of male mental diseases. A survey showed that most visitors were men concerning online sex education programs. In addition, some boys aged 13 to 15 mainly concerned with issues related to spermatorrhea and masturbation. With increasing age, some men focus on premature ejaculation and sexually transmitted diseases. The researchers think it is beneficial and necessary to conduct sex education in schools<sup>[14, 15]</sup>. Therefore, according to the physiological characteristics of different age teenagers, it is necessary to purposefully carry out sexual health education and guide them to set up correct sexual values. It is also essential to understand adolescent physiological and physical changes, and learn some knowledge on masturbation. By this way, it not only improves their health awareness and eliminates various psychological problems, but also prevents the spread of venereal diseases.

##### **4.2. Psychological counselling**

Psychological counselling is a way for patients to actively seek psychological help<sup>[16]</sup>. As participants and beneficiaries of reproductive health, men currently enjoy not optimistic counselling services. Because there are very limited formal reproductive health services available for men, male patients can only resort to private clinics in China. A survey on care-seeking mentality among men in South Asia showed that most men were reluctant to seek medical care for they feel confused about where to seek medical care. Therefore, there is still a lot of work to do to make patients consciously accept this service, which needs the attention and guidance of the whole society to improve men's health awareness and the quality of consulting service. In the recent years, there are some places for male psychological counselling in various medical institutions, but there is still a big gap between the existing conditions and the requirements of male reproductive health. The professional quality of medical staff, especially the psychological counselling service skills, still needs to be improved. Health departments should increase the investment on men's health service resources, and improve the access and evaluation system of technical positions of male medical personnel. Thus, it will promote the healthy development of andrology.

##### **4.3. Psychotherapy**

Psychotherapy has been widely used in male clinical practice. Psychotherapy includes psychoanalytic therapy, behavioral therapy, cognitive therapy and other therapies. Now days, many psychologists have

broken down the traditional stereotypes and integrated different treatments to form a more flexible and distinctive method, which can be used for the treatment of a variety of psychological disorders, including male sexual disorders<sup>[17]</sup>.

Sexy concentration training method is a model of behavioral therapy for treatment of sexual dysfunction. Its advantage is that patients can focus on the self-perception of natural sexual reactions without any adverse psychological factors. In the clinical practice, the use of a variety of psychological treatment means has a perfect effect. Through the psychological communication between patients and doctors, patients can understand the sexual knowledge and the root of psychological factors. Patients should be trained on sexual knowledge to correct wrong sexual cognition. According to the patient's situation, the doctors may arrange feasible sexy centralized training program for them. Moreover, doctors can apply erectile drugs, give psychological implication, and strengthen the psychological treatment effect.

In addition, patients with chronic prostatitis are prone to tension, anxiety and other psychological states, which is also one of the important factors causing the aggravation of illness or inflammation<sup>[18]</sup>. The psychological pressure caused by various factors often in turn affects their physiological function and leads to a vicious circle, which makes the original condition aggravate. Doctors also meet some patients with psychological disorders that are related to partial androgen deficiency syndromes. In view of these problems, some domestic experts put forward psychological counselling therapy, which provides a clinical example for solving similar problems. The method is to help patients rebuild the psychological positioning that is adapted to the social environment through information communication and correct guidance. Thus, they will cope with the physical and psychological challenges with a more positive attitude.

#### **4.4. Pharmacotherapy**

Drugs play an important role in the treatment of neurosis, which can improve the mood of patients through antidepressant and anti-anxiety<sup>[19]</sup>. It is unexpectedly effective for many cases of chronic prostate and prostate pain. There are also some ways to use the side effect of drugs, such as paroxetine and mirtazapine. This kind of drugs also have effect on the delayed ejaculation and can be used for treating premature ejaculation. Moreover, traditional Chinese medicine can relieve symptoms of patients by regulating metabolic levels.

### **5. Change bad living habits**

#### **5.1. Stay up late and lack of sleep**

Staying up late is easily lead to a lack of sleep, which is particularly harmful to reproductive health. Lack of sleep reduces human immunity, leading to endocrine disorders and other symptoms. Moreover, it even leads to the sexual dysfunctions. In addition, long-term stay up late is easy to suffer from chronic prostatitis, which will cause male infertility<sup>[20]</sup>. Lack of sleep is also prone to hypertension, neurasthenia, depression, etc., which has serious damage to the human reproductive system. To maintain reproductive health, men should go to bed early and get up early, and develop good sleep habits. By ensuring adequate sleep time, we can have good physical quality and maintain normal function of reproductive system.

#### **5.2. Smoking**

Long-term smoking has a great harm to reproductive health, which easily lead to the reduction of sperm number, sperm cell membrane damage and other symptoms<sup>[21, 22]</sup>. Long-term smoking can also impair vascular endothelial cell function and might lead to fetal malformations. To maintain reproductive health, be sure to quit smoking habits and avoid inhaling the secondhand smoke.

#### **5.3. Sitting for a long time**

Sedentary time also has a great impact on the reproductive health<sup>[23]</sup>. It has been found that sitting for a long time tends to cause blood circulation disorders in the reproductive system, reduce spermatogenic function, and then develop sexual dysfunction and infertility. In addition, sitting for a long time is not only prone to epididymitis and chronic prostatitis, but also easily lead to testicular temperature above the normal level and damage spermatogenic function.

#### 5.4. Excessive drinking of alcohol

Drinking too much alcohol is easy to damage health, which will lead to chronic prostatitis, reduced fertility, sexual dysfunction and some other symptoms [24]. It has been found that people who drink excessive alcohol have reduced androgens and are prone to symptoms such as low sexual desire and impotence. Moreover, it can even lead to testicular atrophy in severe cases. Therefore, to ensure reproductive health, excessive alcohol consumption should be avoided as much as possible.

#### 6. Conclusion

With the fast development of social economy, the psychological and reproductive health of men is one of focuses in the medical community. Paying attention to the sub-health status and the quality of life is the direction of the development and effort of andrology science in future. The studies on the relationship between psychological factors and male reproductive health will help us to solve the problems related to men's health. By this way, it will help reveal the law of male science and promote the reproductive health of men.

#### References

- [1] Park, H.J., Park, J.K., Park, K., Lee, S.W., Kim, S.W., Yang, D.Y., Moon, D.G., Min, K.S., Moon, K.H., Yang, S.K. and Hyun, J.S. (2010) Prevalence of premature ejaculation in young and middle-aged men in Korea: a multicenter internet-based survey from the Korean Andrological Society. *Asian journal of andrology*, 12(6), 880.
- [2] Li, X.C., Zhang, X.B., Liao, Z.C., Tang, Z.Y. and Li, D.J. (2021) Is mild erectile dysfunction associated with severe psychological symptoms in Chinese patients with moderate-to-severe chronic prostatitis/chronic pelvic pain syndrome? *Asian Journal of Andrology*, 23(3), 319.
- [3] Yan, Q. (2018) Stress and systemic inflammation: Yin-Yang dynamics in health and diseases. *Psychoneuroimmunology*, 3-20.
- [4] Khatami, M. (2008) 'Yin and Yang' in inflammation: duality in innate immune cell function and tumorigenesis. *Expert opinion on biological therapy*, 8(10), 1461-1472.
- [5] De Jonge, C. and Barratt, C.L. (2019) The present crisis in male reproductive health: an urgent need for a political, social, and research roadmap. *Andrology*, 7(6), 762-768.
- [6] Jiang, X.Y., Chen, S.H. and Cao, J.G. (2021) Discussion on Treatment of Asthenospermia from the Perspective of Psychosomatic Medicine of Traditional Chinese Medicine. *Psychosomatic Medicine Research*, 3(3), 122-128.
- [7] Li, Y., Lin, H., Li, Y. and Cao, J. (2011) Association between socio-psycho-behavioral factors and male semen quality: systematic review and meta-analyses. *Fertility and sterility*, 95(1), 116-123.
- [8] Gao, J., Zhang, X., Su, P., Liu, J., Shi, K., Hao, Z., Zhou, J. and Liang, C. (2013) Relationship between sexual dysfunction and psychological burden in men with infertility: a large observational study in China. *The journal of sexual medicine*, 10(8), 1935-1942.
- [9] Zhang, Y., Xiao, F., Lu, S., Song, J., Zhang, C., Li, J., Gu, K., Lan, A., Lv, B., Zhang, R., Mo, F., Jiang, G., Zhang, X. and Yang, X. (2016) Research trends and perspectives of male infertility: a bibliometric analysis of 20 years of scientific literature. *Andrology*, 4(6), 990-1001.
- [10] Guo, Z.N., He, S.Y., Zhang, H.L., Wu, J. and Yang, Y. (2012) Multiple sclerosis and sexual dysfunction. *Asian journal of andrology*, 14(4), 530.
- [11] Gu, H.F., Tang, C.K. and Yang, Y.Z. (2012) Psychological stress, immune response, and atherosclerosis. *Atherosclerosis*, 223(1), 69-77.
- [12] Yang, L., Zhao, Y., Wang, Y., Liu, L., Zhang, X., Li, B. and Cui, R. (2015) The effects of psychological stress on depression. *Current neuropharmacology*, 13(4), 494-504.
- [13] Zou, P., Wang, X., Sun, L., Chen, Q., Yang, H., Zhou, N., et al. (2018) Semen quality in Chinese college students: associations with depression and physical activity in a cross-sectional study. *Psychosomatic medicine*, 80(6), 564-572.
- [14] Giami, A., Ohlrichs, Y., Quilliam, S., Wellings, K., Pacey, S. and Wylie, K.R. (2006) Sex education in schools is insufficient to support adolescents in the 21st century: A summary of sexual and relationship therapy's inaugural debate, held at the 8th Congress of the European Federation of sexology in Prague, 5 June 2006. *Sexual and Relationship Therapy*, 21(4), 485-490.
- [15] Wight, D. and Abraham, C. (2000) From psycho-social theory to sustainable classroom practice: developing a research-based teacher-delivered sex education programme. *Health education research*, 15(1), 25-38.

- [16] Yousaf, O., Grunfeld, E.A. and Hunter, M.S. (2015) A systematic review of the factors associated with delays in medical and psychological help-seeking among men. *Health psychology review*, 9(2), 264-276.
- [17] Træen, B. and Schaller, S. (2013) Talking to patients about sexual issues: Experiences of Norwegian psychologists. *Sexual and Relationship Therapy*, 28(3), 281-291.
- [18] Chung, S.D. and Lin, H.C. (2013) Association between chronic prostatitis/chronic pelvic pain syndrome and anxiety disorder: a population-based study. *PLoS One*, 8(5), e64630.
- [19] Grinspoon, L. and Bakalar, J.B. (1986) Can drugs be used to enhance the psychotherapeutic process?. *American journal of psychotherapy*, 40(3), 393-404.
- [20] Sharpe, R.M. (2000) Lifestyle and environmental contribution to male infertility. *British medical bulletin*, 56(3), 630-642.
- [21] Cui, X., Jing, X., Wu, X., Wang, Z. and Li, Q. (2016) Potential effect of smoking on semen quality through DNA damage and the downregulation of Chk1 in sperm. *Molecular Medicine Reports*, 14(1), 753-761.
- [22] Condorelli, R.A., La Vignera, S., Giaccone, F., Iacoviello, L., Vicari, E., Mongioi, L. and Calogero, A.E. (2013) In vitro effects of nicotine on sperm motility and bio-functional flow cytometry sperm parameters. *International journal of immunopathology and pharmacology*, 26(3), 739-746.
- [23] Sun, B., Messerlian, C., Sun, Z.H., Duan, P., Chen, H.G., Chen, Y. J., et al. (2019) Physical activity and sedentary time in relation to semen quality in healthy men screened as potential sperm donors. *Human Reproduction*, 34(12), 2330-2339.
- [24] Pasqualotto, F.F., Lucon, A.M., Sobreiro, B.P., Pasqualotto, E.B. and Arap, S. (2004) Effects of medical therapy, alcohol, smoking, and endocrine disruptors on male infertility. *Revista do Hospital das Clínicas*, 59, 375-382.