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Erectile dysfunction has been a concern for men since the beginning of written history. Erectile dysfunction (impotence) is the inability to get and keep an erection firm enough for sex. Erectile dysfunction symptoms might include persistent: Trouble getting an erection, Trouble keeping an erection, and Reduced sexual desire For many men it can lead to severe psychological distress and humiliation. The treatment of erectile dysfunction has advanced significantly over the past 200 years. Men today are presented with many more viable therapy options leading to improved efficacy and more satisfactory sex lives. The objective of this article is to explore the psychogenic factors that lead to erectile dysfunction (ED).

*Keywords:* erectile dysfunction, hyposexuality, stress, anxiety, depression, sleep disorders, eating disorders, substance addictions, marital adjustment, sexual performance anxiety, early trauma, guilt, low self-esteem and indifference pornography addiction.

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# Psychological Factors behind Erectile Dysfunction

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## ABSTRACT

*Erectile dysfunction has been a concern for men since the beginning of written history. Erectile dysfunction (impotence) is the inability to get and keep an erection firm enough for sex. Erectile dysfunction symptoms might include persistent: Trouble getting an erection, Trouble keeping an erection, and Reduced sexual desire For many men it can lead to severe psychological distress and humiliation. The treatment of erectile dysfunction has advanced significantly over the past 200 years. Men today are presented with many more viable therapy options leading to improved efficacy and more satisfactory sex lives. The objective of this article is to explore the psychogenic factors that lead to erectile dysfunction (ED). About 40% of erectile dysfunction cases are considered psychogenic. Under the study the factors are such as hyposexuality, stress, anxiety, depression, sleep disorders, eating disorders, substance addictions, marital adjustment, sexual performance anxiety, early trauma, guilt, low self-esteem and indifference Pornography addiction. The result concluded that psychogenic factors above mentioned influence or causes erectile dysfunction. Increasing importance is being attached to the psychological aspects in the diagnosis and management of erectile dysfunction in recent years.*

**Keywords:** erectile dysfunction, hyposexuality, stress, anxiety, depression, sleep disorders, eating disorders, substance addictions, marital adjustment, sexual performance anxiety, early trauma, guilt, low self-esteem and indifference pornography addiction.

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## I. INTRODUCTION

“Happy is the man who finds a true friend, and far happier is he who finds that true friend in his wife.” Franz Schubert said about marriage. Marriage is a path to conceive morally. Yes, the fertility. Fertility is defined as the natural capacity to conceive a child. Fertility is the ability of an individual or couple to reproduce through normal sexual activity. About 90 percent of healthy, fertile women are able to conceive after marriage within one year if they have intercourse regularly without contraception. Normal fertility requires the production of enough healthy sperm by the male and viable eggs by the female, successful passage of the sperm through open ducts from the male testes to the female fallopian tubes, penetration of a healthy egg, and implantation of the fertilized egg in the lining of the uterus. A problem with any of these steps can cause infertility (Britannica, T. Editors of Encyclopedia, 2019).

Childlessness or infertility has serious personal, demographic, social and health implications (Ganguly, S., & Unisa, S, 2010). Infertility is a disease of the male or female reproductive system defined by the failure to achieve a pregnancy after 12 months or more of regular unprotected sexual intercourse (World Health Organization). Infertility is a disease of reproductive system defined by failure to achieve the clinical pregnancy after 12 months or more of regular unprotected sexual intercourse (Zegers-Hochschild F, Adamson GD, de Mouzon J, Ishihara O, Mansour R, Nygren K, et al,2009). Infertility affects millions of people of reproductive age worldwide – and has an impact on their families and communities. It can also be defined as failure of couple to conceive after 12 months of regular intercourse without the use of

contraception in women <35 years; and after 6 months of regular intercourse without the use of contraception in women ≥35 years (Practice Committee of the American Society for Reproductive Medicine, 2008). Global estimates suggest that between 48 million couples and 186 million individuals live with infertility. In the male reproductive system, infertility is most commonly caused by problems in the ejection of semen, absence or low levels of sperm, or abnormal shape (morphology) and movement (motility) of the sperm. In the female reproductive system, infertility may be caused by a range of abnormalities of the ovaries, uterus, fallopian tubes and the endocrine system. Infertility can be primary or secondary. When a pregnancy has never been achieved by a person is “Primary infertility”, and when at least one prior pregnancy has been achieved is “secondary infertility” (WHO). Especially in developing countries, sexually transmitted infections (STIs) are generally considered the leading preventable cause of infertility worldwide, (Ganguly, S., & Unisa, S, 2010). With a recording of 27.5 million couples wanting to conceive but suffering from infertility, there is an alarming increase of infertility complications in India due to a multitude of reasons (Guptha .L, 2021). In India, about 10-15 per cent of couples are said to have fertility issues (Doctors of All India Institute of Medical Sciences). According to the Indian Society of Assisted Reproduction, about 10 to 14 percent of the Indian population are affected by infertility, which is higher in urban areas where one out of six couples seems to be impacted. As per the WHO, the overall prevalence of primary infertility ranges between 3.9% and 16.8% (Calverton, Maryland, USA: ORC Macro and the World Health Organization; 2004). Estimates of infertility vary widely among Indian states from 3.7 per cent in Uttar Pradesh, Himachal Pradesh and Maharashtra (Talwar, P.P., Go, O.P., & Murali, I.N., 1986) to 5 per cent in Andhra Pradesh (Unisa S, 1999), and 15 per cent in Kashmir (Kumar D, 2007). Also, the estimates of infertility vary widely among Indian states. The prevalence of primary infertility shown to vary across the tribes and castes within the same region in India (Talwar, P.P., Go, O.P., & Murali, I.N.,

1986). Sometimes it is difficult to find out the biological reason behind infertility that often-called “Idiopathic infertility”. Nearly 30% of infertile couples worldwide are diagnosed with unexplained or idiopathic infertility and the problem is defined as the lack of an obvious cause for a couple's infertility. (Sadeghi M. R., 2015).

The cause of infertility may be from the side of women or men. The main sign of male infertility is the inability to conceive a child. Male infertility can be caused by low sperm production, abnormal sperm function or blockages that prevent the delivery of sperm. Illnesses, injuries, chronic health problems, lifestyle choices and other factors may contribute to male infertility (Mayo clinic, 2021).

It was reported that 40% of infertility cases were related to men, 40% of women and 20% of both sexes (Sadock, B.J., & Sadock, V.A., 2003). According to a multicentric study conducted by WHO from 1982 to 1985, 20% of cases were attributed to male factors, 38% to female factors, 27% had causal factors identified in both partners, and 15% could not be satisfactorily attributed to either partner. A Sexual dysfunction is described as any disruption of normal sexual activity in an individual or couple. Such dysfunction could occur in any of the phases of the normal sexual cycle (physical pleasure, desire, preference, arousal, or orgasm) (Ghadigaonkar, D. S., & Murthy, P, 2019).

Male fertility is a complex process. To get the partner pregnant, the following must occur. Must produce healthy sperm, sperm have to be carried into the semen, there needs to be enough sperm in the semen, sperm must be functional and able to move. Problems with male fertility can be caused by a number of health issues and medical treatments: it includes Varicocele, Infection, Ejaculation issues, Antibodies that attack sperm, Tumors, Undescended testicles, Hormone imbalances, Defects of tubules that transport sperm, Chromosome defect, Erectile dysfunction, Problems with sexual intercourse, Celiac disease, Certain medications and Prior surgeries. Overexposure to certain environmental elements such as heat, toxins and chemicals can reduce

sperm production or sperm function. Specific causes include: Industrial chemicals, Heavy metal exposure, Radiation or X-rays, Overheating the testicles. (Mayo clinic, 2021). According to Guyton and Hall (2007), libido and sexual potency are maintained in about 60% of normal men, aged between 40-50 years, and in about 40% of men over 60 years.

## II. METHODS

PubMed, Scopus, Web of Science, Embase, PsycINFO, IndMed, and Google Scholar were searched along with books. To find out Data, were collected by searched articles online along with books to find out information regarding erectile dysfunction (ED) and psychological factors responsible for ED. Review of the chapters on the physiology and psychology of erection, out of the author's collection of books dealing with male sexual functioning published in the English.

## III. DISCUSSION

The erect penis has always been a symbol of a man's virility and sexual prowess. "All elongated objects," wrote Freud, "such as sticks, tree-trunks and umbrellas, the opening of these last being comparable to an erection, may stand for the male organ. The study of human physiology as a medical field dates back to the time of Hippocrates (c. 460-c. 370 BC). His intellectual legacy pervaded Western medical thinking until the Renaissance. He stated that erections were generated *pneuma* and *vital spirits* flowing into the penis. In this respect, a proper balance between the four humors, blood, phlegm, yellow bile, and black bile, and the four elements, earth, air, fire, and water, was very important. Hippocrates thought that the testes were connected to the penis by fine cords, like a system of pulleys that could facilitate erection. Damage to these cords, for example by castration, would profoundly affect erectile capability. (Chadwick, A.J., Mann, W.N, 1987) As in his opinion, semen was the most potent fraction of male bodily fluids Hippocrates also believed that excessive ejaculations could reduce erectile functioning. Ancient Greek philosopher Aristotle (384–322 BC) stated that penile erection was an

"involuntary movement," which could be caused by imagination. In Galen of Pergamon's (129–200/216) view, the primary cause for erection was a specific quality of the corpora cavernosa (CC). He called them "the hollow nerves." They were able to attract the expanding *pneuma* with the aid of connected parts consisting out of arteries, veins, and nerves, and in addition the "internal heat" pushed the penis out from a man's body. (Schultheiss, D., Musitelli, S., Stief, C.G., N Jonas, U.) Leonardo da Vinci (1452–1519) erection came about as a result of the accumulation of air. In 1933, William Henry Howell (1860–1945) from Johns Hopkins University had recorded in advance a surprising modern hypothesis about the physiology of penile erection (Howell, W.H., 1993). He wrote that "tumescence occurred while dilatation of small arteries and arterioles caused the corpora cavernosa to distend with blood under high pressure limited by the tunica albuginea. And full erection required partial occlusion of venous outflow, probably by compression of the afferent veins by the ischio- and bulbocavernous muscles and to a certain extent by the intrinsic musculature of vessel walls." Albert von Kölliker in the 19th already had hypothesized: the importance of the smooth muscle cells in the corpora cavernosa. (Van Driel, M.F, 2015)

According to current medical status erection occur when the blood vessels of the corpora cavernosa relax and open up, blood rushes in through the cavernosus arteries to fill them. The blood then gets trapped under high pressure, creating an erection. An erection begins with sensory and mental stimulation. During sexual arousal, nerve messages begin to stimulate the penis. Impulses from the brain and local nerves cause the muscles of the corpora cavernosa to relax, allowing blood to flow in and fill the open spaces. The blood creates pressure in the corpora cavernosa, making the penis expand and creating an erection. The tunica albuginea (the membrane surrounding the corpora cavernosa), helps to trap the blood in the corpora cavernosa, sustaining the erection. Erection is reversed when muscles in the penis contract, stopping the inflow of blood and opening outflow channels. (Cleveland Clinic medical professional, 2020)

There are three types of erection: psychogenic, reflexogenic and nocturnal. Psychogenic erection is a result of audiovisual stimuli or fantasy. Reflexogenic erection is the kind of erection is the result of direct stimulation of the penis. The brain does not control this. A full bladder or bowel may cause this type of erection. Nocturnal. Erection or Nocturnal penile tumescence (NPT) is not a result of sexual arousal or having a dream relating to sex. Instead, it is a normal function of the male reproductive system (Medical News Today). Although it is not a lethal condition, the interest surrounding erectile dysfunction and its remedies has been constant throughout the ages (Glina, S., Shindel, A., Eardley, I., & Ghanem, H, 2008). Erectile dysfunction is the inability to achieve or maintain an erection that is sufficient for satisfactory sexual performance, and affects a considerable proportion of men at least occasionally (Virag, R., Zwang, G., Dermange, H., & Legman, M., 1981). Erectile dysfunction is now widely classified as either primary or secondary. Strictly defined, these categories distinguish men who have never been able to accomplish intercourse (primary) from those who have, at least once.

Insufficient penile erection to facilitate vaginal penetration is a medical condition referred to as erectile dysfunction (ED) (Consensus development conference statement, National Institutes of Health, 1992). Erectile dysfunction (ED), also known as impotence, Its diagnosis dates back to over 5000 years ago based on ancient Egyptian literature (Shamloul, R, Ghanem, H, 2013). The pervasiveness of erectile dysfunction shows a gradual increase in an age-dependent manner according to a cross-sectional and community-based investigation (Feldman, H.A., Goldstein, I, Hatzichristou, D.G., Krane, R.J., McKinlay, J.B, 1994). Moreover, it was found that the prevalence level of severe and moderate ED was 5 and 17%, respectively, in men of 40–49 age-bracket while in men aged 70–79 years they were 15 and 34%, in that order. By the year 2025, the number of ED cases across the world is expected to reach 322 million (Bacon, C.G., Mittleman, M.A., Kawachi, I., Giovannucci, E., Glasser, D.B., & Rimm, E.B, 2003). Given that

erectile dysfunction is regarded as a condition that is more prevalent in older men (Yafi, F. A., Jenkins, L., Albersen, M., Corona, G., Isidori, A. M., Goldfarb, S., Maggi, M., Nelson, C. J., Parish, S., Salonia, A., Tan, R., Mulhall, J. P., & Hellstrom, W. J. 2016). In addition to long-term ED, many more men suffer from situational erectile dysfunction, or short-term ED. Situational ED also results in the inability to get or maintain an erection, but only in certain situations. "This type of ED is usually temporary and can be caused by stress, fatigue, or too much alcohol," says Drogo Montague, MD, a urology professor at the Cleveland Clinic Lerner College of Medicine of Case Western Reserve University.

Years ago ED was considered to be of psychological origin in 75-95% of cases (Abraham G., Porto, R, 1979). Some authors establish that ED with psychogenic origin is 10% of the total (Stief, Bahren, Scherb, & Gall, 1989) found that 20-30% of erectile dysfunctions were purely psychogenic and that mixed cause could reach 66%, while other authors report 37% for organic, 33% for mixed and 30% for purely psychogenic (Farré & Lasheras, 1998). In any case it is necessary to bear in mind that in all cases of ED there is a psychological component, independent of if a possible original organic cause exists. In many cases, erectile dysfunction is caused by something physical. Common causes include: Heart disease, Clogged blood vessels (atherosclerosis), High cholesterol, High blood pressure, Diabetes, Obesity, Metabolic syndrome – a condition involving increased blood pressure, high insulin levels, body fat around the waist and high cholesterol, Parkinson's disease, Multiple sclerosis, Certain prescription medications, Tobacco use, Peyronie's disease – development of scar tissue inside the penis, Alcoholism and other forms of substance abuse, Sleep disorders, Treatments for prostate cancer or enlarged prostate, Surgeries or injuries that affect the pelvic area or spinal cord, Low testosterone (Mayo clinic staff, 2021). Male sexual arousal is a complex process that involves the brain, hormones, emotions, nerves, muscles and blood vessels. Erectile dysfunction can result from a problem with any of these. Likewise, stress and

mental health concerns can cause or worsen erectile dysfunction. Sometimes a combination of physical and psychological issues causes' erectile dysfunction. For instance, a minor physical condition that slows sexual response might cause anxiety about maintaining an erection. The resulting anxiety can lead to or worsen erectile dysfunction.

The main Psychological factors such as hyposexuality, stress, anxiety, depression, sleep disorders, eating disorders, substance addictions, marital adjustment, sexual performance anxiety, early trauma, guilt, low self-esteem, indifference Pornography addiction can influence erectile dysfunction. About 40% of erectile dysfunction (ED) cases are considered psychogenic. Increasing importance is being attached to the psychological aspects in the diagnosis and management of erectile dysfunction in recent years (Wang W., 2011).Erectile dysfunction can be caused by an underlying medical condition. To determine if erectile dysfunction is psychogenic, a healthcare provider will seek to explore and rule out any medical conditions that could be causing the problem. Here we are discussing the psychogenic factors that lead to erectile dysfunction. Psychological impotence affects between 10% and 20% of men, a number that may not seem significant until you consider that erectile dysfunction, on the whole, may affect roughly 50% of men in their thirties and over 40% of men in their 40s and fifties.

### 3.1 Hyposexuality

Hypo sexuality is used by sexual health professionals to describe a condition characterized by decreased libido which can be experienced at different degrees and time periods for various reasons. It is an abnormally low level of sexual behavior. Hypo sexual individuals may show no sex drive or interest in sexual activity (APA Dictionary). It is occasionally wrongly aligned with asexuality - whereby someone does not experience sexual attraction towards others. The hypo sexuality is more common in men than we think. It is around 1.5% and low sexual desire is more common about 15-17%.Low sex drive is estimated to affect about 30 per cent of men (The

Irish times,2017). It affects 30 million men around the world. Normal sex needs the mind and the body together. If we have low sexual desire, it will cause or worsen erectile dysfunction. Hypo sexuality may accompanied by erectile dysfunction (Blumer, D., 1970). When the libido is low, it manifests itself in a reduction in the frequency of erection. (Nițescu, N, &Ramba, D N, 2020). The importance of sex hormones in determining male libido is undeniable, testosterone and other testicular androgens having an essential role in inducing erotic status, penis erection and the onset of copulation. In adults, sexual desire is manifested bipolar, both cerebral and local, through the erection of the genitals, thus preparing them for sexual intercourse. The eroticization of the brain occurs as a result of the excitation of the receptors in the genital areas and organs by imaginary factors or by the information of the erotic elements received by the analyzers and transmitted to the brain, which give the perception of female sensuality to the man. In the absence of brain eroticization, the exciting stimuli remain simple information, without erotic impulse, without erection and therefore, without finality (Nițescu, N, &Ramba, D N, 2020).

### 3.2 Stress

Stress is a physiological or psychological response to internal or external stressors. Stress involves changes affecting nearly every system of the body, influencing how people feel and behave. For example, it may be manifested by palpitations, sweating, dry mouth, shortness of breath, fidgeting, accelerated speech, augmentation of negative emotions (if already being experienced), and longer duration of stress fatigue. Severe stress is manifested by the general adaptation syndrome. By causing these mind–body changes, stress contributes directly to psychological and physiological disorder and disease and affects mental and physical health, reducing quality of life [first described in the context of psychology around 1940 by Hungarian-born Canadian endocrinologist Hans Selye (1907–1982)] (APA Dictionary). Stress can be acute or chronic. Acute stress is a very short-term type of stress that can either be positive or more distressing; this is the

type of stress we most often encounter in day-to-day life. Chronic stress is stress that seems never-ending and inescapable, like the stress of a bad marriage or an extremely taxing job; chronic stress can also stem from traumatic experiences and childhood trauma. (Scott, E., 2020).

When outside stressors and other psychological factors are behind erectile dysfunction, it's categorized as psychogenic erectile dysfunction. It generally happens in two ways. Anxiety causes a mental distraction, making it challenging to focus on sex. Or, stress can cause an increase in sympathetic nerve activity (think: the fight-or-flight response) Interestingly, the part of the autonomic nervous system that stimulates an erection is the parasympathetic nervous system, which is what is at work when we resting or sleeping," explains Dr. Berglund. Our body's stress response counteracts the parasympathetic system, which works when we at rest. Meaning, it's nearly impossible to stay aroused when we seized with fear and panic.

Mental health conditions like stress can also affect how our brain signals our body's physical response. In the case of an erection, stress can interrupt how our brain sends messages to the penis to allow extra blood flow. Stress about ED can also contribute to a cycle of ongoing ED. Experiencing ED can lead to behavioral changes that contribute to anxiety and incidences of ED. The reasons for ED vary per age group, but generally follow: Psychological ED (mainly nervousness and anxiety) affects about 90 percent of teenagers and young men. These events are fairly short-lived. Personal and professional stress, such as relationship trouble, is the main reason for ED in middle-aged men. Physical impotence is the most common cause for older men, but the loss of a partner and loneliness can also cause psychological stress. Posttraumatic stress disorder (PTSD) found that PTSD increased the risk for sexual dysfunction can also lead to other health conditions that may cause erectile dysfunction.(Breyer, B.N., Cohen,B.E., Raymond, C. R.,Neylanc.T.&Seal,K.H., 2013). Clinical data have indicated increased rates of sexual dysfunction, including erection and ejaculation difficulties in patients with PTSD. (Cosgrove, D.J.,

Gordon. Z., Bernie, J.E., Hami, S., Montoya, D., et al., 2002). Most combat veterans with PTSD experience clinically relevant sexual difficulties and 69% have erectile dysfunction Letourneau, E.J., Schewe, P.A., Frueh, B.C. (1997). Previous studies of stress and the hypothalamic- pituitary-gonadal axis have indicated that circulating testosterone (T) fluctuates in response to physical and psychological stress lead to erectile disfunction. (Retana-Marquez, S., Bonilla- Jaime, H., Vazquez-Palacios, G., Martinez-Garcia, R., Velazquez-Moctezuma, J.,2003).

Stress causes the release of brain chemicals that can keep an erection from even getting started. Erectile dysfunction (ED) is a complex disorder with various biopsychosocial implications leading the individual into a state of chronic stress that further worsens ED symptoms. ( Kalaitzidou, I.,Venetikou, M.S, Konstadinidis, K., Artemiadis, A.K, Chrousos,G., & Darviri, C.,2013).A study investigates the effects of an 8-week stress management programme on erectile dysfunction (ED). Stress management group showed a lower daily exposure to cortisol compared with the control group. After 8 weeks the experimental group shows improvement of both perceived stress and erectile function( Kalaitzidou, I.,Venetikou, M.S, Konstadinidis,K.,Artemiadis, A.K,Chrousos,G.,& Darviri, C.,2013). Psychogenic factors are involved alone or in combination with organic causes in a substantial number of cases of erectile dysfunction. Epidemiologic studies have implicated the role of depressed mood, loss of self-esteem, and other psychosocial stresses in the cause of erectile dysfunction ( Rosen, R.C.,2001)

Many studies prove the relation with erectile dysfunction with stress. Overall, 32.2% of men in a study conducted in aged 20–80 years had ED according to the IIEF-5 scale. One of the most important risk factors for ED is psychological stress (Ponholzer, A., Temml, C., Mock, K., Marszalek, M., Obermayr, R., & Madersbacher, S., 2008). In another study conducted in Korean men, ED prevalence was positively associated with risk factors such as diabetes, hypertension, heart disease, psychological stress, and obesity (Ahn, T.Y., Park, J.K., Lee, S.W., Hong, J.H., Park, N.C., Kim, J.J., Park, K., Park, H., & Hyun,

J.S.,20007). Recently, the prevalence of hypogonadism in primary care practices mirrored that in our population of men with erectile dysfunction. The prevalence of hypogonadism observed an association between work stresses. Guay *et al.* have reported a prevalence of hypogonadism of 36.0% in men with ED seen in an endocrinology specialty center for sexual function and dysfunction. Men who report life and work stresses also have a high prevalence of hypogonadism. (Guay,A.T., Velasquez, E., & Perez, J.B,1999). Stress and stressful life events shows change semen quality, serum reproductive hormones, and erectile dysfunction (Elvira, V., Bräuner, Nordkap,L., Priskorn,L., Hansen,A.M, Bang,A.K., Holmboe,S.A., Schmidt,L., Tina Jensen,T.K., & Jorgensen,N.,2020).

### 3.3 Anxiety

Anxiety is a normal and often healthy emotion. When an individual faces potentially harmful or worrying triggers, feelings of anxiety are not only normal but necessary for survival. However, when a person regularly feels disproportionate levels of anxiety, it might become a medical disorder. (Browne, D., 2020).The American Psychological Association (APA) defines anxiety as “an emotion characterized by feelings of tension, worried thoughts and physical changes like increased blood pressure.”Anxiety plays a major role in the development of the problems associated with erectile dysfunction (ED). Psychological and behavioral responses to ED can lead to a vicious cycle of increased uneasiness, distance and conflicts. This in turn leads to a lower frequency of sexual encounters, less time spent together and lack of communication between partners in a relationship. ED often results from a combination of different causes, which comprise of organic and psychogenic factors that occur at the same period of a man's life. (Rosen, R.C., 2001). There are multiple life stressors that can lead to anxiety and in turn induce secondary ED (someone who had achieved and sustain an erection for a long time before recent events). In addition to life stressors resulting in anxiety, erectile problems themselves can lead to specific anxiety. The vicious cycle of failure and escalating anxiety resulting from ED affects not only the patient but also the patient's

partner(Beutel, M.,1999). Typical concerns of the female partner are that she is no longer attractive to her partner; that she is getting too old for him to desire her; that her partner no longer loves her. In addition, she may also worry about her partner's fidelity. Frustration, not just sexual frustration, but a frustration at the lack of tenderness in the relationship can develop. As with the patient, the resulting partner's anxiety may lead to behavioral modifications, for example she may become clumsy and unsure how to behave with her partner, particularly in bed (Hedon, F.,2003).

A study done by Beck,J.C.,&Barlow,D.H 1986, defined relevant ‘anxiety’ and distraction processes occurring in sexual dysfunction including erectile dysfunction. A study aimed to elucidate the relationships between erectile dysfunction (ED) and depression or anxiety, and it finds ED associated significantly with depression and anxiety status only in late 40s to early 50s (45–55 years) in male Japanese. (Sugimori,H., Yoshida,K., Tanaka,T., Baba,K., Nishida,T., Nakazawa,R., &Iwamoto,T.,2005).

In a study conducted in Italy patients with severe anxiety and ED is related. Dynamic Penile echocolor Doppler ultrasound could be considered an accurate diagnostic test in patients with non-organic ED.(Cannarella, R., Calogero, A. E., Aversa, A., Condorelli, R. A., & La Vignera, S., 2021). A study entitled “Association between psychiatric symptoms and erectile dysfunction” find erectile dysfunction (ED) is often associated with a wide array of psychiatric symptoms, including phobic anxiety and free-floating anxiety etc. The aim of this study is to explore the relationship between ED and different psychopathological symptoms. They concluded that psychiatric symptoms can be found among ED patients.(Corona, G., Ricca, V., Bandini, E., Mannucci, E., Petrone, L., Fisher, A.D., Lotti, F., Balercia, G., Faravelli, C., Forti, G., and Maggi, M., 2007). A cross-sectional survey was performed to evaluate the prevalence and correlations of depression and anxiety among Chinese erectile dysfunction (ED) men. They found the prevalence and severities of anxiety increased as the ED severity increased.Yang,Y.,Song,Y.,Lu,Y., Xu,Y.,

Liu, L., & Liu, X., 2009). A study done by Beck, D. J. & Barlow, D. H. in 1986, present investigation explored the interactive effects of an anxiety-producing demand for performance and two forms of attention focus on men with secondary erectile dysfunction. Penile tumescence and subjective arousal were monitored continuously. The result shows impairment in ED during anxiety producing condition. In another study conducted with the aim of investigate the prevalence of anxiety and depression symptoms among patients with primary ED and premature ejaculation find that greater levels of state anxiety were reported among the ED patients. (Mourikis, I., Antoniou, M., Matsouka, E. *et al.*)

The findings of reviews suggest that the anxiety disorder populations are at a higher risk of developing ED. The role of anxiety in sexual functioning in this population has not been clearly established but it is thought that an abnormal anxiety response causes an increase in sympathetic tone, resulting in a distraction from erotic stimuli leading to impaired arousal and erection (Corretti G., 2007).

### 3.4 Depression

Depression (major depressive disorder) is a common and serious medical illness that negatively affects how you feel the way you think and how you act. Fortunately, it is also treatable. Depression causes feelings of sadness and/or a loss of interest in activities you once enjoyed. It can lead to a variety of emotional and physical problems and can decrease your ability to function at work and at home. (American psychiatric association). The prevalence of depression in males is 3.6% (WHO).

Studies show that 35 to 47 percent of people with depression have problems with their sex life, 61 percent of people with severe depression have sexual problems. (Iliades, C, 2013, Every day health). The sexual urge that causes us to have an erection starts in our brain. When there aren't enough brain chemicals to stimulate the blood flow needed for an erection, erectile dysfunction results. Depression causes these brain chemicals to get out of balance, and that can mean us have

less desire for sex — and can't perform well. Erectile dysfunction is a common problem. It is estimated that half of all men over age 50 will experience erectile dysfunction from time to time. To know if depression is part of the sexual problem, focus on these warning signs: lost the desire for sex, and sex no longer feels pleasurable, doctor has prescribed an antidepressant and it is affecting your sex life, start to experience erectile dysfunction after a stressful life event, such as the loss of a job or a loved one or another family trauma, erectile dysfunction along with strong feelings of anxiety, frustration, and stress and Erectile dysfunction is associated with feeling negative about yourself (Iliades, C, 2013)

Normal sexual function is a biopsychosocial process; sexual dysfunction almost always has organic and psychological components and requires multidisciplinary, goal-directed evaluation and treatment. A study entitles "Exploring the relationship between depression and erectile dysfunction in aging men" shows Erectile dysfunction is one of the more common male sexual dysfunctions encountered in the clinical setting. Comorbidity between erectile dysfunction and depressive illness is high. Finally they are saying that the causal relationship is unclear. (Seidman, S.N., 2002). In a study The findings of the meta-analysis indicate that exposure to depression increases the risk of ED. demonstrated that the risk of ED increases by 39% in patients with depression, and that the incidence of ED is 1.39 times higher in patients with depression than in those without depression. (Liu, Q., Zhang, Y., Wang, J., Li, S., Cheng, Y., Guo, J., Tang, Y., Zeng, H., & Zhu, Z., 2018). The behavioral model postulates that patients with depression tend to engage in negative thought and are less confident, which results in performance anxiety that further reduces erectile function (Makhlouf, A. & Kparker, C.S., 2007). The biological model postulates that depression affects the hypothalamic-pituitary-adrenocortical (HPA) axis, leading to excess catecholamine production, which in turn, leads to poor cavernosal muscle relaxation and ED (Goldstein, I., 2000). Moreover, most antidepressant drugs have adverse effects on

erectile function (Shiri, J.R., Koskimaki, T.L. & Tammela). In addition, low testosterone is a possible explanation for the exacerbation of depression by ED (Chou, P.S., Chou, W./P., Chen, M. *et al.*, 2015). Previous studies have suggested that testosterone plays a key role in ED development and that low testosterone levels are associated with ED (Tsuji-mura, A., 2013). The Massachusetts Male Aging Study showed that men with untreated depression had a 1.8-fold greater chance of experiencing erectile dysfunction than men without depression, and erectile dysfunction increased with increasing degree of depression (Araujo, A.B., Durante, R., Feldman, H.A., Goldstein, I., McKinlay, J.B., 1998). A strong association has been observed among erectile dysfunction, overall lack of life satisfaction, and symptoms of depression in the study of Shabsigh, R., Klein, L.T., Seidman, S., Kaplan, S.A., Lehrhoff, B.J. & Ritter, J.S., (1998).

Improvements in life satisfaction may result from positive changes in self-confidence, mood, and family and sexual relationships, and improved erectile function in men with erectile dysfunction may play a decisive role in the complex network of factors that contribute to overall quality of life (Rosen, R.C., Seidman, S.N., Menza, M.A., Shabsigh, R., Roose, S.P., Tseng, L.J., Orazem, J., Siegel, R.L., 2004). The results presented here strongly support the hypothesis that improvements in sexual function in men with erectile dysfunction are associated with a lessening of depressive symptoms, which may have clinical implications for the management of a broad population of men with mild depression who may also suffer from erectile dysfunction.

### 3.5 Sleep disorders

Good sleep is necessary for good health and well-being (Buysse, D.J., 2014). Sleep is defined on the basis of behavioral and physiological criteria dividing it into two states: non rapid eye movement (NREM) sleep which is subdivided into three stages (N1, N2, N3); and rapid eye movement (REM) sleep characterized by rapid eye movements, muscle atonia and desynchronized EEG. Circadian rhythm of sleep-wakefulness is controlled by the master clock located in the suprachiasmatic nuclei of the hypothalamus.

(Chokroverty, S., 2010). Adults need 7 or more hours of sleep per night for the best health and wellbeing. Sleep disorders are a group of conditions that affect the ability to sleep well on a regular basis. Whether they are caused by a health problem or by too much stress, sleep disorders are becoming increasingly common. Depending on the type of sleep disorder, people may have a difficult time falling asleep and may feel extremely tired throughout the day. The lack of sleep can have a negative impact on energy, mood, concentration, and overall health. There are different causes for different sleep disorders, including: Other conditions, such as heart disease, lung disease, nerve disorders, and pain, Mental illnesses, including depression and anxiety, Medicines, Genetics, etc (Mayo Clinic, 2021). Most sleep disorders can be characterized by one or more of the following four signs: trouble falling or remaining asleep, difficult to stay awake during the day, there are imbalances in circadian rhythm that interfere with a healthy sleep schedule, prone to unusual behaviors that disrupt sleep. (Sing, A., 2020). Sleep problems, including snoring, sleep apnea, insomnia, sleep deprivation, and restless legs syndrome, are common. 35% of people in the world do not feel they get enough sleep. Adults of 33% are struggling with chronic insomnia. (Bhaskar, S., Hemavathy, D., & Prasad, S., 2016)

Sleep-related erection (SRE) is a natural and involuntary phenomenon occurring typically during REM sleep in healthy males. SRE was called 'nocturnal penile tumescence' in work by Karacan, 1982. But sleep disturbance causes ED. Sleep disorders can impact our testosterone and oxygen levels. That can lead to many different issues, including erectile dysfunction (ED). Research has found a high prevalence of ED in men with obstructive sleep apnea, but doctors are not exactly sure why that's the case. Researchers have found evidence that men who have obstructive sleep apnea are more likely to have ED, and vice versa. A 2009 Trusted Source found that 69 percent of male participants diagnosed with Obstructive Sleep Apnea also had ED (Budweiser, S., Enderlein, S., Jörres, A. R., Hitzl, A.P., Pfeifer, W.F & Arzt, M., 2009). A 2016

study found erectile dysfunction in about 63 percent of study participants with sleep apnea (Tsujimura, A., 2013). Research has shown a link between dysfunction with the endocrine system and sleep disorders. Hormone over activity between the brain and the adrenal gland may affect sleep function and cause wakefulness. A 2014 also found that low testosterone levels can lead to poor sleep. Decreased testosterone can lead to erectile dysfunction (ED). However, there's no evidence that obstructive sleep apnea impacts testosterone production. (Wittert, G., 2014). Testosterone plays an important role in sexual function, muscle mass, bone mineral density, and even mood. Chronic insomnia or chronic sleep restriction could therefore not only cause decreases in testosterone levels, but could also have marked implications for health and quality of life, including sexual function. The low level of testosterone pay a major role in ED, it seen in insomnia and chronic sleep insufficiency. (Auyeung, T.W., Lee, J.S., Kwok, T., Leung, J., Ohlsson, C., Vandenput, L, et al.,2011). Circadian rhythm sleep disorders are problems with sleep characterized by an inability to sleep at the desired time, rather than a dysfunction with the underlying mechanisms generating sleep. (American Sleep Disorders Association) The interactions between the circadian clock and erectile function, is existing while focusing on how disturbed rhythms contribute to risk factors of ED. (Tao, L.i., Bai,Y., Jiang,Y., Jiang, K., Ye Tian, Wang, Z., BanY.,, Liang, X., Luo ,G.,& Sun.F,2022)Although there are only a few studies about Rest leg syndrome(RSL) and ED, it is thought that RLS is associated with ED The mechanism of interaction has not been clarified yet, but it may be because RLS and ED have similar biological processes, including autonomic dysfunction and dopamine deficiency. (Gao, X., Schwarzschild, M.A., O'Reilly, E.J., Wang, H., &Ascherio, 2010).In a recent case-control study with 50 subjects each, Kurt reported ED in Control group.( Kurt, O., Yazici, C.M., Alp, R., Sancak, E.B., &Topcu, B.,2019). Periodic limb movements during sleep (PLMS) is a type of movement disorder consisting of repetitive limb movements most often impacting the lower limbs, especially as extension of the toes, flexion of the

ankles and knees and sometimes even the hips, during sleep. These movements consist of bursts of muscle activity throughout sleep, and can cause both EEG arousals as well as autonomic arousals. Usually, RLS patients tend to have PLMS once they fall asleep (Wijemanne, S., Ondo,2017) PLMS is a relatively common sleep disorder with a prevalence ranging between 3% to 26% of the general population. The prevalence of PLMS has been known to be higher among ED patients, affecting 54% to 60%, especially men aged greater than 70 years (Hirshkowitz, M., Karacan, I., Arcasoy, M.O., Acik, G., & Williams, R.L., 1989).Another disorder nocturia is the need to wake up one or more times to void urine during sleep (van Kerrebroeck, P., Abrams, P., Chaikin, D., Donovan, J., Fonda, D., Jackson, S., et al, 2002). Nocturia is a common complaint in middle-aged and older patients. While young adults rarely report symptoms of nocturia, urological surveys find that approximately half of adults age 60 or older report nocturia, and the prevalence increases with advancing age. Frequent nocturia could produce fragmented sleep and consequentially decrease the level of testosterone(Kim, M.K., Zhao, C., Kim, S.D., Kim, D.G., & Park, J.K.).A study of type 2 diabetes patients also found nocturia was associated with ED, and patients with lower levels of testosterone had a higher prevalence of nocturia (Liao, C.H., Chiang, & H.S., Yu, H.J, 2011). Narcolepsy is a rare chronic sleep disorder with a prevalence of 0.02% to 0.06%.The main symptom is excessive daytime sleepiness or unexpected sleep attacks. It affecting both sexes equally (Abad, V.C, 2017). Finding suggested a connection between ED and the medications such as stimulants and antidepressants used to treat narcolepsy.

### *3.6 Eating disorders*

In today's generation, many people suffer from eating disorder. Eating disorder is one of the most complicated issues. This trouble can lead to severe physical and emotional damage if not treated at the right time. The DSM-5 contains diagnostic criteria for mental health disorders, to assist clinicians in effective assessment and diagnosis. Outlined below are the diagnostic criteria for eating disorders: Anorexia Nervosa (AN), Bulimia

Nervosa (BN), Binge Eating Disorder (BED), Other Specified Feeding and Eating Disorder (OSFED), Pica, Rumination Disorder, Avoidant/Restrictive Food Intake Disorder (ARFID) and Unspecified Feeding or eating disorder (UFED).

Eating disorder might trigger erectile dysfunction. Studies shows that people with obesity have a higher risk for erectile dysfunction (ED) (Yafi, F. A., Jenkins, L., Albersen, M., Corona, G., Isidori, A. M., Goldfarb, S., Maggi, M., Nelson, C. J., Parish, S., Salonia, A., Tan, R., Mulhall, J. P., & Hellstrom, W. J. 2016). Changes to diet, maintaining unhealthy weight can develop the risk of developing conditions that lead to ED. ED is less common among those who follow a Mediterranean diet- a Mediterranean diet favors fresh, plant-based foods with fish and a little meat over processed foods and a high intake of meat. (La, J., Roberts, N. H., & Yafi, F. A., 2018). Obese patients have an increased prevalence of vascular risk factors. Obesity in itself does not seem to be an underlying factor, but does impose a risk to vasculogenic impotence by developing chronic vascular disease, which may lead to erectile dysfunction (Chung, W. S., Sohn, J. H., & Park, Y. Y., 1999). Sleep-related eating disorder (SRED) is a parasomnia characterized by clinically consequential involuntary eating emerging from sleep with partial or full unconsciousness. It may lead one person obese and the chance for ED is high. (American Academy of Sleep Medicine International Classification of Sleep Disorders, 2014). It can be said that taking care of our overall health and eating a varied and nutritious diet can help prevent or manage ED.

### 3.7 Substance addictions

Men are more likely than women to use almost all types of illicit drugs (Center for Behavioral Health Statistics and Quality. Results from the 2016 National Survey on Drug Use and Health). Drugs can be addictive. Drug addiction, also called substance use disorder, is a disease that affects a person's brain and behavior and leads to an inability to control the use of a legal or illegal drug or medication. Substances such as alcohol, marijuana and nicotine also are considered drugs.

When you're addicted, you may continue using the drug despite the harm it causes. (Mayo clinic). The DSM 5 recognizes substance-related disorders resulting from the use of 10 separate classes of drugs: alcohol; caffeine; cannabis; hallucinogens (phencyclidine or similarly acting arylcyclohexylamines, and other hallucinogens, such as LSD); inhalants; opioids; sedatives, hypnotics, or anxiolytics; stimulants (including amphetamine-type substances, cocaine, and other stimulants); tobacco; and other or unknown substances. Some of the causes that men use substances are Expectations of Masculinity and Self-Medication, Pressure Relating to Life Circumstances, Genetic Predisposition to Substance Use, Health Conditions, Trauma or Adverse Childhood Experiences, Grief, etc. Alcohol use disorder is still the most common form of substance use disorder around the world (Glazer, G., 2015).

Sexual dysfunction is commonly associated with the use of substances, in both men and women. A study conducted by Bang-Ping, J, in 2009 proved that illicit drug male abusers were prone to have ED. ED and decreased sexual desire were most commonly seen in heroin, followed by amphetamine and MDMA (Methylenedioxy-methamphetamine) mono-users. A mechanism that may be involved in testosterone suppression include the decreased release of vasodilator molecules like nitric oxide and the toxic effects of the oxidants produced during the metabolism of alcohol. Erectile dysfunction may result from alcohol-induced neuropathy or because of the cardiovascular complications caused by chronic use of alcohol. Chronic use of cannabis may lead to decreased testosterone. Animal studies involving the endocannabinoid system have shown inhibitory effects of cannabis on erectile function. (Gratzke, C, Christ, GJ, Stief, CG, K-E, Andersson, Hedlund, P., 2015). Chronic use of opioids such as morphine and heroin reduce the release of luteinizing hormone further leading to decreased testosterone and estradiol with an increase in free sex hormone binding globulin causing hypogonadism. This is associated with reduced sexual desire, erectile dysfunction, and infertility. (Vuong, C, Van Uum, SHM, O'Dell, LE,

Lutfy, K, Friedman, TC, 2010). Prolonged use of cocaine decreases sexual desire and erectile function and causes delayed orgasm/ejaculation. This effect is noted to be worse when cocaine is used along with other psychoactive substances, including alcohol. Prolonged use of methamphetamine, however, may lead to difficulty in achieving a full erection, decreased sexual desire, and anorgasmia. (Buffum, J., 1982). Methylendioxyamphetamine (MDMA), popularly known as “ecstasy” or “love drug” causes improved sexual experience. However, chronic use leads to impaired erection and delayed orgasm. (Beck, J, Rosenbaum, M, 1994). Some types of antidepressants can cause erectile dysfunction, such as: tricyclic antidepressants, monoamine oxidase inhibitors (MAOIs), selective serotonin reuptake inhibitors (SSRIs) and selective serotonin-norepinephrine reuptake inhibitors (SSNRIs). These drugs alter levels of different chemicals in brain, such as dopamine, prolactin, and serotonin. However, it isn't fully known how these chemicals regulate sexual function. Some chemotherapy drugs, such as cisplatin, vincristine, and bortezomib can cause peripheral neuropathy. This is damage to parts of the nervous system. Peripheral neuropathy can sometimes affect nerves in the penis that control erections. Some types of drugs used to treat high blood pressure may prevent smooth muscle in your penis from relaxing. This effect prevents enough blood from reaching the penis. Without proper blood flow, can't maintain an erection. (Rodriguez, A, 2020). Some studies have shown that smoking is not associated with ED. (Johannes, C.B., Araujo, A.B., Feldman, H.A., Derby, C.A., Kleinman, K.P., & McKinlay, J.B., 2000) However, the Massachusetts Male Aging Study found that the incidence of ED doubled in a sub-group of men smokers free from vascular-disease. (Feldman, H.A., Johannes, C.B., Derby, C.A., Kleinman, K.P., Mohr, B.A., Araujo, A.B., & McKinlay, J.B., 2000) Little is known about the effect of smoking on the recovery from ED and that of ED on starting or stopping smoking. It has also been shown that past smoking is also associated with ED. The use of certain substances may be related to the user's positive sexual expectancies from such use.

However, it is evident that all substances used for their mind-altering properties have a variety of adverse consequences on different phases of the sexual cycle. (Ghadigaonkar, D. S., & Murthy, P., 2019).

### *3.8 Marital adjustment*

According to APA dictionary of psychology marital adjustment is “the process by which married couples attain mutual gratification and achieve common goals while maintaining an appropriate degree of individuality” Especially important to marital adjustment are the sharing of experiences, interests, and values, respect for the partner's individual needs, aims, and temperament, maintenance of open lines of communication and expression of feeling, clarification of roles and responsibilities, cooperation in decision making, problem solving, and rearing of children, attainment of mutual sexual gratification. Infidelity, Sexual differences, Values and beliefs, Life stages, Traumatic situations, Stress, Boredom, Jealousy, Trying to change each other, Communication problems, Lack of attention, Financial issues, Lack of appreciation, Technology and social media, Trust issues, Selfish behavior, Anger issues, Lying, Unrealistic expectations are some common issues that lead to marital discards. (Pace, R, 2021). Other than that erectile dysfunction, or ED, is a common condition that can make sexual activity difficult. It may lead to a loss of intimacy in a marriage or long-term relationship, affecting the mental well-being of both partners. In a study of 28 attendees of a sexual and marital clinic, the relationship between marital distress and both general and specific sexual dysfunctions was investigated. , it was noted that the specific male sexual dysfunctions of erectile dysfunction and premature ejaculation played a much larger part in marital discord. (Rust, J et al. 1988).

Arguments, poor communication, and anger can affect your sexual desire and sexual function. Working through these problems with your partner can help ease your symptoms of ED. Marital discard may lead to stress and strain in men may lead to ED. Sometimes selective patterns of erectile dysfunction happen. It

include: the man who is unable to obtain an erection with his wife but who regularly obtains a firm erection with another partner. (Levine, S.B., 2016). In a case study, the deterioration of the relationship is revealed by the words and tone used in the patient's responses to the physician's questions about the quality of the marriage. The patient may recount his wife's deficiencies, their fights, the cold, silent interactions, the infidelity, and thoughts of divorce. Even without such obvious evidence, his sarcastic, bitter, accusatory, or coldly indifferent tone conveys the lack of affection. His undisturbed potency before the relationship deterioration completes the pattern of erectile dysfunction due to interpersonal causes. (Hallbook, t, & Holmquist, B) A study shows that poor communication were the major factors contributing to ED (Rew, K, T & Heidelbaugh, J.J., 2016).

### 3.9 Sexual performance anxiety

Sexual performance anxiety (SPA) can be defined as extreme nervousness experienced before or during sexual activity, typically affecting one's ability to have successful or satisfactory sex. SPA is a type of performance anxiety that affects sexual activity in particular. A person who has this condition will often be overcome by a fear that they'll be unable to perform either before sexual activities or during them. Performance anxiety, resulting from the man's concerns over his erectile response and durability of his erection, is always present even if at different levels (Beutel, M., 1999). The classic example is performance anxiety. "One erection failure can lead to fear and anxiety that can produce a temporary problem with erectile dysfunction," says Montague. Performance anxiety is caused primarily by negative thoughts. These thoughts can be related to sex or issues in your daily life. Men can feel pressured to please their partners or feel insecure about their ability to perform sexually. Fear and anxiety about penis size and body image could also play a role in performance anxiety. Causes of Sexual Performance Anxiety include: Fear that won't perform well in bed and satisfy partner sexually, Poor body image, including concern over weight, Problems in relationship, Worry that your penis won't "measure up", Concern about

ejaculating too early or taking too long to reach orgasm, Anxiety about not being able to have an orgasm or enjoy the sexual experience. Previous negative sexual experiences/trauma, a lack of sexual experience, Feeling emotionally disconnected from your partner. One of the effects of the stress hormones is to narrow blood vessels. When less blood flows into your penis, it's more difficult to have an erection. Even guys who normally don't have any trouble getting excited might not be able to get an erection when they're overcome by sexual performance anxiety. Sexual performance anxiety leads to a cycle of troubles. You might become so anxious about sex that you can't perform, which leads to even more sexual performance anxiety. (Watson, S, 2020).

The heightened sympathetic activity associated with sexual performance anxiety may be a key early component of this disruption of normal erectile responses. (Brien, S., Smallegange, C., Gofton, W. et al., 2002). Some research has shown a link between performance anxiety and erectile dysfunction. Stress about sex can lead to performance anxiety. This, in turn, can lead to erectile dysfunction (ED). When a person feels unable to meet a partner's sexual expectations, they may start feeling unworthy or incapable. These feelings of inadequacy and low self-esteem may lead to physical symptoms, such as ED. SPA affects 9-25% of men and contributes to premature ejaculation and psychogenic erectile dysfunction (ED) (Pyke, E.R., 2020). A recent study from 2015 found a connection between depression and performance anxiety and noted that there may be a link between performance anxiety and ED. (Rajkumar R, P. & Kumaran, A.K., 2015). A study evaluated the association between attitudes toward sex, stress, relationship quality, performance anxiety, and sexual dysfunction resulted in main factors related to all types of sexual dysfunction among men. Results demonstrate the central role of performance anxiety in either the development or maintenance of sexual dysfunction including ED. (McCabe, M. P., 2005). Liu, M., 2002 conducted a study and results show that high sexual performance anxiety affected the ED, patients' self-evaluation and coping response; and that sexual performance

anxiety, deficient sexual sensitivity, and poor communication were the major factors contributing to ED. The study concludes that sexual performance anxiety is a significant factor in the cause of ED. Based on The five-question International Index of Erectile Function allows rapid clinical assessment of ED find out that Performance anxiety and relationship issues are common psychological causes for ED. (Rew, K, T & Heidelbaugh, J.J, 2016).

### 3.10 Early trauma

Trauma is an emotional response to a terrible event like an accident, rape or natural disaster. Immediately after the event, shock and denial are typical. Longer term reactions include unpredictable emotions, flashbacks, strained relationships and even physical symptoms like headaches or nausea. While these feelings are normal, some people have difficulty moving on with their lives (American Psychological Psychology). Trauma can be three types. Acute trauma results from a single incident. Chronic trauma is repeated and prolonged such as domestic violence or abuse. Complex trauma is exposure to varied and multiple traumatic events, often of an invasive, interpersonal nature. There are five steps in trauma. Denial, Anger and Acceptance. Early childhood trauma generally refers to the traumatic experiences that occur to children aged 0-6. Because infants' and young children's reactions may be different from older children's, and because they may not be able to verbalize their reactions to threatening or dangerous events, many people assume that young age protects children from the impact of traumatic experiences. A growing body of research has established that young children may be affected by events that threaten their safety or the safety of their parents/caregivers, and their symptoms have been well documented. These traumas can be the result of intentional violence—such as child physical or sexual abuse, or domestic violence—or the result of natural disaster, accidents, or war. Young children also may experience traumatic stress in response to painful medical procedures or the sudden loss of a parent/caregiver. Some individuals latterly may clearly display criteria associated with

posttraumatic stress disorder (PTSD). Around the world 60.7 percent of men reported experiencing at least one trauma in their lifetime. The most common trauma was witnessing someone being badly injured or killed (cited by 35.6 percent of men), The second most common trauma was being involved in a fire, flood, or other natural disaster (cited by 18.9 percent of men), The third most common trauma was a life-threatening accident/assault, such as from an automobile accident, a gunshot, or a fall (cited by 25 percent of men). Childhood trauma include Physical abuse, Sexual abuse, Emotional abuse, Physical neglect, Emotional neglect, Mental illness, Divorce, Substance abuse, Violence against your mother, Mental illness, having a relative who has been sent to jail or prison.

Post-traumatic stress disorder (PTSD) is a mental health condition that's triggered by a terrifying event — either experiencing it or witnessing it. Symptoms may include flashbacks, nightmares and severe anxiety, as well as uncontrollable thoughts about the event (APA). In a 2002 study published in the journal *Urology*, 85% of combat veterans undergoing treatment for PTSD reported symptoms of erectile dysfunction (Cosgrove, D. J., Gordon, Z., Bernie, J. E., Hami, S., Montoya, D., Stein, M. B., & Monga, M. 2002).

Childhood trauma. And that doesn't include only childhood sexual abuse (although that's a large and pervasive type of childhood trauma). It also includes being neglected by your parents, seeing aggressive or emotionally abusive behavior between your parents, getting bullied or mistreated by peers, dealing with identity-related discrimination, and more. These early negative experiences can psychologically shape us and the way we behave, think, and move throughout the world. And new research suggests those traumas can actually affect the way we experience our sexuality in a very specific way. It influences penial erecting. survivors' availability and receptiveness to pleasant stimuli, including sexual stimuli, therefore leading to a sex life perceived as empty, bad, unpleasant, negative, unsatisfying, or worthless. Depression, anxiety, and anger are the most commonly reported emotional responses to childhood sexual abuse. This will definitely

influence erectile dysfunction. This study explores the impact of childhood sexual assault (CSA) on men's sexual function done by Kamnerdsiri, A, D, Fox, C. & Weiss, P., 2020, they find that when taking a sexual history, it is recommended to practitioner to include questions about CSA, considering its correlation with erectile dysfunction. They find out that correlation between the two. Child sexual abuse (CSA) is strongly associated with sexual dysfunction. Studies confirmed that CSA is a risk factor for sexual dysfunction in adult male survivors, including low sexual drive, problems with arousal, and difficulties with orgasm and pain, other studies failed to find a correlation between sexual dysfunction and CSA. (Gewirtz-Meydan, A. & Opuda, E, 2020).

### 3.11 Guilt

Guilt is a feeling of deserving blame especially for imagined offenses or from a sense of inadequacy. It is a self-conscious emotion characterized by a painful appraisal of having done (or thought) something that is wrong and often by a readiness to take action designed to undo or mitigate this wrong. It is distinct from shame, in which there is the additional strong fear of one's deeds being publicly exposed to judgment or ridicule. (APA Dictionary). If guilt is strong enough, it interrupts the signals between brain and body, stopping one from getting an erection. It's almost as if the unconscious mind punishes by denying pleasure in response to the guilt that feel. Guilt can also cause impotence in men who view sex as being shameful for religious or cultural reasons. A man may feel guilty that they are not satisfying their partner. Guilt dominates the lives of some impotent men. Their consciences repeatedly drive them to deny themselves pleasure, spoil nice things in their lives, or compulsively perform works of social benefit. Impotence is an aspect of the same neurotic patterns that characterize the rest of their lives. Guilty men experience considerable shame and self-degradation about sexual expression. (Cleveland Clinic medical professionals, 2019). A study done by Chakrabarti, N., Chopra V, K., & Sinha, V, K, 2002, shows Masturbatory guilt (Some people may feel guilty about masturbating because of cultural,

spiritual, or religious beliefs) leading to severe depression and erectile dysfunction.

Sexual guilt is a negative emotional response associated with the feeling of anxiety, guilt or shame in relation to sexual activity. It is also known as "sexual shame". It is linked with the negative social stigma and cultural expectations that are held towards sex as well as the historical religious opposition of all "immoral" sexual acts. Participation in sexual intercourse does not need to occur to experience sexual guilt; however, self sexual pleasure or sexual activities with others are major causes. Sexual guilt can also be felt by an individual who feels guilty about the idea of sex. Sexual guilt can be derived from the negative pressures placed upon individuals throughout a lifetime of parental messages or religious teachings surrounding sexual activity and expression. (Ley, D.J.) Sexual Guilt can be a reason for erectile dysfunction. A study explored how guilt feelings about having sexual fantasies during intercourse are related to frequency of fantasizing, to sexual satisfaction and sexual dysfunction occurred. The high-guilt subjects believed that sexual fantasies during intercourse were significantly more abnormal, immoral, uncommon, socially unacceptable, and harmful to themselves, their partner, and their relationship. These guilty feeling leads to sexual dysfunction including ED. (Cado, S. & Leitenberg, H., 1990). Negative, confusing, guilt-inducing, or traumatic sexual experiences are almost universal for both females and males. It causes sexual dysfunction. (McCarthy, B.W., 2008)

### 3.12 Low self-esteem

According to Rosenberg, (1965a), self-esteem is one's positive or negative attitude toward oneself and one's evaluation of one's own thoughts and feelings overall in relation to oneself. Self-esteem is regarded as a personal psychological characteristic relating to self-judgment based on one's values about humans (Alesi et al., 2012). Self-esteem implies an awareness of one's value system and one's emotional evaluation of one's self-worth (Schunk, 1985). An individual with high self-esteem and an individual with low self-esteem may respond similarly to positive

input, but they could exhibit different responses to negative input. Specifically, people with low self-esteem tend to exhibit negative responses, while those with high self-esteem tend to be less affected, as they are inclined to reject or restrict the scope of negative feedback (Brown, J. D., and Mankowski, T. A. 1993).

Low self-esteem may manifest in a variety of ways. If you have low self-esteem: you may believe that others are better than you, You may find expressing your needs difficult, You may focus on your weaknesses, You may frequently experience fear, self-doubt, and worry, You may have a negative outlook on life and feel a lack of control, You may have an intense fear of failure, You may have trouble accepting positive feedback, You may have trouble saying no and setting boundaries, You may put other people's needs before your own, You may struggle with confidence. Low self-esteem has the potential to lead to a variety of mental health disorders, including anxiety disorders and depressive disorders. Difficult to maintain healthy relationships. Having low self-esteem can seriously impact quality of life i.e. our sexual life also. (Cherry,K.,2021)

Low self-esteem and erectile dysfunction feed off one another. One study of Brazilian men showed that 95% of those with ED also had poor self-esteem! While it's no surprise that sexual dysfunction or erectile dysfunction can cause low self-esteem. For example, men who start out with a low self-esteem may see themselves as unsexy or inadequate. This can lead to erectile problems in bed. Furthermore, people with a low self-esteem are more vulnerable to experiencing guilt, depression, anxiety and fear of rejection. A study conducted by Feldman, H.A, Goldstein, I., Hatzichristou, D.G, Krane, R.J., & McKinlay, J.B. in 1994, ED impacts a patient's and his partner's sexual life and is associated with depression, anxiety, and low self-esteem. In a study entitled "Is erectile dysfunction related to self-esteem and depression? A prospective case-control study" aimed to evaluate the relationship of erectile dysfunction (ED) with self-esteem, symptom severity and depression. The result shows the patients with mild ED are not entirely satisfied in

spite of normal sexual frequency. This situation causes significantly low the self-esteem of men. Prevention of ED will contribute to increased self-esteem and happy lives. (Özkent, M.S. et al. 2021). If one feels that he is unattractive, or undesirable, it'll likely put a damper on sexual encounters. Low self-esteem may also cause anxiety about sexual performance, which can lead to issues with ED and reduced sexual desire. Over time, self-esteem issues can result in larger mental health problems, such as depression, anxiety, and drug or alcohol abuse — all of which have been linked to low libido and ED.(Murrell,D, 2019). Sexual self-confidence (few ways people can boost their confidence in bed and ready themselves for hits to self-esteem that may come their way) has been shown to be associated with erectile function. (Sontag, A., Ni, X., Althof, S. *et al.*,2014).

### 3.13 Indifference

Sexual indifference may come as a result of age and a subsequent loss of interest in sex, be the result of medications or stemming from problems in a couple's relationship. There are many reasons that could lead a man to become sexually indifferent. Thinking about sex creates a burst of dopamine, which is a brain chemical that's linked to excitement, motivation and pleasure. It also plays a crucial role in helping you to get an erection! In a man who is bored with or indifferent about sex, thinking about the act is unlikely to be accompanied by that dopamine burst, which in turn can cause erectile dysfunction.

### 3.14 Pornography addiction

Pornography addiction is characterized by the compulsive and repeated use of pornographic material, causing negative consequences to the viewer's physical, mental, social and/or financial wellbeing. A lot of time spent watching and masturbating to pornography can cause unrealistic expectations about sex or sexual partners. The brain can become "trained" to expect and need that kind of experience in order to achieve arousal for ED. This effect is so common it has its own diagnosis – pornography

induced erectile dysfunction or (PIED). A survey of 28,000 users found that many Italian males started an "excessive consumption" of porn sites as early as 14 and after daily use in their early to mid-20s became inured to "even the most violent" images, said Carlo Foresta, head of the Italian Society of Andrology and Sexual Medicine (SIAMS). According to new research presented July 16, 2020, at the European Association of Urology (EAU) Virtual Congress, too much pornography watching can lead to trouble: It is linked to increased cases of erectile dysfunction (ED), The research team defined porn addiction among their participants by using a specific validated cyber porn addiction score which consist of eleven questions. In the group below age 35, with a high porn addiction score, 45 percent had ED.

A new German study in JAMA Psychiatry found men who watch an excessive amount of pornography tend to have less volume and brain activity in regions linked to reward and motivation. Their data also showed porn addiction weakened the area of the brain associated with behavior and decision making. As men continually watch porn to feel stimulated, their ability to become naturally stimulated is severely hampered. One of the most disturbing effects of porn addiction is porn-induced erectile dysfunction. This form of erectile dysfunction prevents men from engaging in ordinary sexual relations. An Italian study revealed up to 70 percent of young men with erectile dysfunction began habitually watching porn in their mid-teens.

#### IV. CONCLUSION

Erectile dysfunction (ED) is a significant problem, with over millions of men around the world. , it may have a dramatic impact on the quality of life of many men as well as their sexual partners. All men, at some point, will experience erectile dysfunction. It may be due to organic cause or psychological cause or the combination of both. The main Psychological factors such as hyposexuality, stress, anxiety, depression, sleep disorders, eating disorders, substance addictions, marital adjustment, sexual performance anxiety,

early trauma, guilt, low self-esteem, indifference Pornography addiction can influence erectile dysfunction. About 40% of erectile dysfunction's cases are considered psychogenic. Increasing importance is being attached to the psychological aspects in the diagnosis and management of erectile dysfunction in recent years. If the problem ED becomes persistent or becomes stressful, then it's appropriate to seek out medical care to discuss possible ED treatment options to uncover, address and decrease the psychosocial and psychological barriers causing ED. Recommended treatment options may include medications, breathing techniques, meditation, guided imagery, exercise, discussion with your partner or therapy.

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