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Female sexual function and sexual distress in married systemic lupus erythematosus (SLE) women at Sohag University Hospital.

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Abstract:
Sexuality is an important aspect of quality of life that is often neglected in research studies and is rarely assessed in routine clinical practice. Patients may feel embarrassed to mention their sexual concerns and many health care providers feel uncomfortable taking a sexual history [1]. This work aimed to estimate the prevalence of self-reported sexual problems and the sexual distress with SLE women and the correlation between them, as well as the correlation between sexual problems and associated factor.

METHODS: Descriptive design study was conducted on one hundred adult married women with systemic lupus erthematosus who were regular attendees at the outpatient clinic of the Rheumatology units of Internal Medicine and the department of Rheumatology and Rehabilitation at Sohag University Hospital, Sohag Egypt.Data was collected by a questionnaire for demographic characteristic and Female Sexual Function Index and Sexual Distress Scale. For data analysis descriptive analytic test were used.

Results: The mean age and range of patient with SLE were (33.3±10.1;19-56).The majority(56%)of these women were housewife, and secondary school education, the majority of the patient had duration of disease >2yrs (78%) and mean(4.5±2.4), ESR1mean and range ware (46.0±36.1;10-200).Among these women (82%)were knee joint affection;(42%)were hip joint affection.RAI mean and range had(9.2±6.9;1.0-34.0),CRPmean and range (13.0±17.9;.00-96).The frequency of sex activity was: (25%)had <once per month, (38%) 1-2 per month, and (37%) 3-4 per month. Also it was found (22%) of SLE was had lupus nephritis ,(10%) had DM. SLE women had more dysfunction of desire, arousal, lubrication, orgasm, satisfaction, and pain(2.9±1.1;2.0±1.3;2.1±1.4;2.2±1.5;2.5±1.7)and global sexual dysfunction (14.1±7.5) and sexual distress was (30.3±10.1). Age, education, occupation, and duration of disease did not have a significant effect on FSD, while Frequency of sexual activity, RAI, ESR1, CRP were of high statistical significant correlation with all sexual domain.

Conclusion: This is the first study to identify sexual dysfunction in women' with SLE. Sexuality-related aspects require special attention from health care professionals. Women with SLE have significantly more FSD and sexual distress. Associated factors such as frequency of sexual activity, RAI, ESR1, and CRP had high impact on the sexual function, and all respondent found difficulties to cross all sexual domains in women with SLE addition to higher indices of sexual distress.

Keywords: Female sexual function, Female Sexual Distress Scale , systemic lupus erthematosus women.

Introduction:

Sexual dysfunction in women is common and may affect 30-70% of women leading to personal distress and impaired quality of life. Sexual dysfunction is defined as “disturbance in sexual desire and psycho-physiological changes that characterize the sexual response and cause marked distress and interpersonal difficulty” (2,3). [4,5,6]. [7,8] added that sexual disorder can be classified into four groups: desire, arousal, orgasm, and sexual pain disorder and they are very common in public population. In Upper Egypt, a study applied on women who attended the outpatient clinic of Sohag University Hospital of the 601 participants, 462 women (76.9%) reported 1 or more sexual problems and low sexual desire was the most common sexual problem(66.4%) [9].Islam is a religion that esteems women and places importance on the marital relationship and foreplay in achieving satisfaction. Aspect like preparation for coitus and proper knowledge about marital relationships before getting married are integral parts of Islamic behavior [10]. Earlier studies attributed sexual problems to**,** fatigue and pain as two of the main reasons for individuals refrain from engaging in sexual intercourse. The same study shows that the pleasure of intercourse can be diminished by pain of joint movement or difficulty in finding a position that does not cause

discomfort. Sexuality is an often neglected area of quality of life in patients with rheumatic disease. Manifestations and symptoms of disease can impair sexual functioning, but this can be much improved by adequate intervention and counseling [11].Another study by Tristano, said that "difficulties in sexual performance are related to overall disability and hip involvement while demised desire and satisfaction were influenced more by prevalent pain, age, and depression [12]. SLE is a pervasive disease that results in variable and occasionally life-threatening manifestations.It afflicts young people disproportionately, the female to male ratio 9-1 and often at a crucial time in their lives when they are trying to establish relationships, start families and launch careers, but much lower in the prepuberal period and can be diagnosed at any time during a woman life , as a result, persons with SLE may experience a wide range of physical, psychological and social problems that are not always fully captured by descriptions of the disease's physiological consequences alone [13,14,15,16,17,18,19] .In a study by **Curry, et al., (1994)** of 100 lupus patients and 79 non-lupus patients, it was found that a number of gynecological problems were significantly correlated with diminished lubrication, subjective arousal, and low satisfaction. SLE had a significant impact on satisfaction of patients if they felt aroused or not. Patients with chronic illness may become disinterested in sex or may become sexually inactive because of misconceptions about ability to have sex or the safety of having sexual relation, or because of body-image concerns or grief related to the diagnosis of their disease [1,21]. Depression, fatigue, pain, stress, anxiety, deformities and generally associated with severe disturbance of body image may further contribute to sexual dysfunction. These problems may affect the willingness of patient or their partners to engage in sexual or other intimate relations. However, touch and physical intimacy are extremely important for severely debilitated or terminally ill patients, these symptoms drive the SLE woman to feel herself to be handicapped, severely handicapped women have to deal with anxieties about health and have sexual problem [21,22,23,]. SLE itself can cause symptoms that are similar to those seen during menopause as sleep disturbance, fatigue and mucosal dryness, including vaginal dryness and associated dyspareunia [25].Sexuality has been described as an essential part of the whole person and integral part of being human.Sexual expression has been cited as a crucial part of an individual's self identity and so is important in all stages of health and illness are reported .The management is a complex process that requires addressing underlying medical issues coupled with treatment of psychological or psychosexual barriers [26,27,2,28]. Sexual satisfaction has been described as "the individual's subjective evaluation of the positive and negative aspects of one's sexual relationship, and his/her subsequent affective response to this evaluation" [29]. [30] revealed that 71% of respondent believed that physicians would dismiss concerns about sexual problems and 68% were afraid of embarrassing physicians by discussing sexual dysfunction and most of them are not raised to discuss sexual matters openly, and when sexuality is taught, it is often done in negative terms.Clinician and system-related barriers also have a role in preventing open communication between clinicians and patient as discomfort with the subject, awkwardness with language, fear of offending the patient, confidentiality, documentation of details in medical records and legal risks [31, 32, 33]. [34,35] said that sexual counseling is a vital part of nursing practice. Nurses have long assumed educative and supportive role as they try to meet the educational and psychological need. **Royal College of Nursing,** added that "Nurses need to recognize that sexuality and sexual health is an appropriate and legitimate area of nursing activity, and that they have a professional and clinical responsibility to address it". However before nurses undertake this responsibility they must be competent. This means that further training and support need to be available to ensure that nurses are able to develop their professional competence.Guidance for nursing staff in this important area has recently been published(**Royal College of Nursing2001**).

Statement of the Research Problem :

About 70 to 90% of people who have lupus are young women in their late teens to 39 years, it often afflicts at a crucial time in their lives when they are trying to establish relationships, start families and launch careers. When diagnosed with systemic lupus erythematosus (SLE), they face

many illness related physical stresses and experience psychological distress and social well-being as a result of chronic illness, but no one touched the sexual problem experienced by the patient with SLE and their vulnerability to her family in Sohag governorate. This kind of research has not been performed before ***in our patients*** except few researches have evaluated sexual function with RE, or general married women. In other countries few studies exist on sexual activity and functioning in female patients with systemic lupus, lack of patient-physician communication is a major reason underlying the failure to identify sexual dysfunction (37). Patients may have difficulty talking to health care providers about sexuality and sexual health for many reasons, even when they clearly are sexually active. Most people are not raised to discuss sexual matters openly (38).Therefore, the purpose of this study is to estimate the prevalence of self-reported sexual problems (desire, arousal, lubrication, orgasm, satisfaction and pain) and the sexual distress, and associated factor among SLE women.

Research question

There are four primary research questions that will be addressed to fulfill the aim of the study. Research questions this study seeks to answer:

1- The prevalence of Female sexual problems associated with distress among systemic lupus erythematosus women.

2- Systemic lupus erythematosus woman's feelings concerning distress about her sex life as guilt, frustration, stress, worry, anger, embarrassment, and unhappiness.

3-Relation between Female sexual function domains and sexual distress.

4- Relation between sexual disorder and associated factor as age, duration of disease, CRP, ESR, education, occupation, frequency of sexual activity and Ritchie Articular index.

Subject and methods:

Research design:

Descriptive design was utilized in the current study.

Setting:

The study group were SLE women who were regular attendees at the outpatient clinics of the Rheumatology Units of the Department of Internal Medicine and the department of Rheumatology and Rehabilitation at Sohag University Hospitals, Sohag, Egypt.

Subjects: Total study subjects of one hundred married women were recruited in the study from the above mentioned settings, according to the following criteria: women aged from 19 to less 60 years, diagnosed with systemic lupus erythematosus and married, the exclusion criteria were, current sexual inactivity such as, divorced, widowed, seriously ill, maiden, and presence of gynecological disease or abnormalities can influence on sexuality as uterine prolepses, ovarian or cervical cyst.

Measures/Instrumentation:

Three tools will be utilized to collect data pertinent to the study, these are:

1. Sociodemogphics and medical data form: this was developed by researcher to elicit information about age, educational level, marital status, occupation, disease duration, frequency of sexual activity per month, duration of disease. Erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), Ritchie Articular index, these data gathered from the patient's clinical chart and hospital records.

2 .Female Sexual Function Index(FSFI) : this is a recently developed, brief (19-item) self-report questionnaire designed to assesses female sexual functioning and responses in women in six separate dimensions : desire[two items], arousal [four items], lubrication [four items], orgasm, satisfaction, pain[three items each].The Questionnaire was translated into Arabic by the researcher and tested for validity, reproducibility and necessary modification by panel of (10) expertise. Each question has a Likert scale score varying from 0 to 5. The total FSFI score is the sum of all scores obtained in each domain according to a simple scoring algorithm [**39**].The higher the score, the better is the sexuality. Subjects obtaining a total FSFI score of ≤ 26.55 were defined as having sexual dysfunction [**40; 41].**

3. Sexual Distress Scale (FSDS): a self-report sexually related personal distress was measured with the Female Sexual Distress Scale (FSDS),an instrument with high reliability, discriminative ability, and construct validity .The FSDS measures a woman's feelings concerning distress about her sex life,

assessing (guilt, frustration, stress, worry, anger, embarrassment, and unhappiness) using a 30-day recall period and a 5-point scale (0=never to 4=always) for each of the 12 items instrument. Responses are summed for an overall score (range 0–48). A score of 15 or higher indicates sexual distress. [42] A sexual problem of desire, arousal, or orgasm was considered distressing if associated with personal distress (FSDS score of 15 or more) in accordance with [43]

Procedure:

The following instruments carried out face-to-face interviews in two phases:

The first phase(preparatory phase): this phase included extensive reviewing of literature and theoretical knowledge of various aspect of this issue in order to select the appropriate tools for data collection, after the select the tool the researcher translate the tool items into Arabic and the content and construct validity was carried out by a panel of (10) expertise. By the end of this phase, a pilot study was executed on 5 patients using the developed tools in order to evaluate the feasibility and applicability of tool ,accordingly the necessary modification were further included in the final analysis.

The second phase (implementation phase): after taking permeation from the ethical committee at the previously mentioned research setting after explanation of the purpose of the study. The researcher selected patient who fulfilled the criteria from the medical ward(Rheumatology and Rehabilitation department unit) at Sohag University Hospital after being diagnosed as systemic lupus erythematosus (SLE) and free from gynecological disease ,based on full clinical history and rheumatology and gynecological assessment.Oral consent were granted from respondent before proceeding with the study after explanation of the purpose of the study . Interview was conducted individually with some privacy in about 30 minutes and the patient was confidentiality of their response will be assured. The data was collected over a period of 1 year.

Statistical Analyses:

The basic statistical analyses were performed using SPSS version (9).The exploratory factor analyses (EFA) were conducted using appropriated descriptive and inferential statistics through spss. A result was interpreted suit the problem under investigation and was summarized in appropriate table. The following tests for significance were used, mean, standard Deviation, range, the level of significance used was <0.05and <0.0001 for highly significant results. Pearson correlation coefficient to test the intercorrelation between domain and spearman rank test was used to measure association between sexual disorder and other factor such as duration of disease, CRP, ESR, education, occupation.

Table (1) Baseline Demographic and clinical characteristics of study patients.

Characteristic	Value
Age(y): Mean (SD); Range	33.3±10.1; (19-56)
Age group (No. %)	
19-39	75(75%)
40-56	25(25%)
Education: (No. %)	
- Ignorant	19(19%)
-Read &write	6(6%)
-Primary	7(7%)
-preparatory	8(8%)
-Secondary	47(47%)
-University	13(13%)
Occupation: (No. %)	
-Student	4(4%)
-Employee	31(31%)
- Housewife	65(65%)
Duration of disease (yrs): Mean (SD) ; Range	4.5±2.4; (6m-12y)
≤ 2yrs	22(22%)
>2yrs	78(78%)
Frequency of sexual activity: (No. %)	
<once per month	25(25 %)
1-2per month	38(38%)
3-4per month	37(37%)
Ritchie Articular index: mean (SD); Range.	9.2±6.9; (1.0 – 34.0)
Knee joint affection (No. %).	82(82%)
Hip Joint affection (No. %).	42(42%)
ESR:	
1st hours: mean (SD); Range	46.0 ±36.1;(10-200)
2nd hour: mean (SD); Range	62.2±40.7;(20-295)
CRP: Mean (SD); Range	13.0±17.8;(.00-96)
Diseases associated	
Lupus nephritis (No. %).	22(22%)
Hypertension (No. %).	10(10%)
DM (No. %).	2(2%)
Inflammatory bowel disease (No. %).	2(2%)
CRF (No. %).	2(2%)
Hepatosplenomegly, TB, Ascitis	2(2%)
Cardiomyopathy (No. %).	1(1%)
Serositis (No. %).	1(1%)
Cerbritis (No. %).	1(1%)
Vassculitis (No. %)	1(1%)

M=Month ; Y=years
ESR=Erythrocyte sediment rate; CRP=C- reactive protein

Results:

One hundred patients completed the questionnaire from 120 patients who were under screening among the non responders, 3 patients refused to share in the survey due to their opinion taking about sex openly is not easy, shame and embarrassment, 2 of women were widows, 10 were maidens and 5 divorced, and for that reason didn't fulfill the research questionnaire. The mean age of participants were 33.3±10.1years (range of 19-56). The majority (65%) of these women were housewives with

secondary school education, the majority of the patient had duration of disease>2yrs (78%) and the mean (4.5±2.4), also ESR1 mean (46.0 ±36.1) with range (10-200). Among these women the knee and hip affection were (82%;42%) and Ritchie Articular index mean & range (9.2±6.9); (1.0-34.0), CRP (13.0 ±17.8); (.00-96). Regarding the diseases associated it was found the majority of patients (22%) had Lupus nephritis, (10%) had hypertension. Other clinical characteristics are listed in Table (1).

Table (2) Sexual Function Domain intercorrelation (Pearson r: range=-1.00- +1.00).

Total group	D	A	L	O	S	P
D	1.00					
A	740**	1.00				
L	683**	910**	1.00			
O	638**	785**	825**	1.00		
S	586**	642**	674**	705**	1.00	
P	680**	868**	885**	766**	692**	1.00

FSFI:Female Sexual Function Index
KEY: D=Desire; A= Arousal; L=Lubrication; O=Orgasm ;S=Satisfaction ;P=Pain
**All correlation coefficient were statistically significant ,p≤0.01

Table (2) shows that the intercorrelation between Sexual Function Domain, it was found that the high statistically significant intercorrelation among all female sexual function domain (p≤0.01).

Table (3) Prevalence of Sexual dysfunction &Sexual distress among systemic lupus erythematosus women: total and domain obtained scores.

Sexual dysfunction &distress	Mean score (SD)	Median	Range	P value
Global dysfunction(FSD)	14.1±7.5	16.6	(2.0-24.0)	.000
Sexual desire disorder(SDD)	2.9±1.1	3.0	(1.2-5.4)	.000
Sexual arousal disorder(SAD)	2.0±1.3	2.4	(0.0-4.5)	.000
Disorder of lubrication(DOL)	2.1±1.4	2.4	(.00-4.5)	.000
Orgasmic disorder(OD)	2.2±1.5	2.8	(.00-4.8)	.000
Sexual dissatisfaction(SD)	2.3±1.0	2.4	(0.8-4.8)	.000
Sexual pain disorder(SPD)	2.5±1.7	2.8	(.00-6.0)	.000
Sexual distress scale(FSD)	30.3±10.1	33.0	(13.0-48.0)	.000

(SD=*Standard deviation)*

In this Table, total &domain score obtained with the FSFI and female sexual distress score are depicted in table(3) (Mean, stander deviation, Median and range) .The mean FSFI for all women 14.1±7.5, with median and range were (16.6;2.0-24.0).The mean score of sexual desire was2.9±1.1, with the median& range were (3.0;1.2-5.4).The mean score of sexual arousal was 2.0±1.3, and median and range were(2.4; 0.0-4.5). The mean score of sexual lubrication was 2.1±1.4, and median and range were(2.4; 0.0-4.5). The mean score of sexual orgasms was 2.2±1.5, and median and range were(2.8;0.0-4.8). The mean score of sexual dissatisfaction was 2.3±1.0, and median and range were(2.4; 0.8-4.8). The mean score of

sexual pain was 2.5±1.7, with median and range were(2.8;0.0-6.0).The finally mean score of sexual distress scale for all women was 30.3±10.1, with median and range were(33.0; 13.0-48.0).

Table 4: Correlation between domains of Female sexual function and associated factors.

Variable	Sexual Function	Desire	Arousal	Lubrication	Orgasm	Satisfaction	Sexual Pain
Age	.063	.138	.082	.072	.086	.121	.095
Education	.050	.013	.006	.026	.102	0.44	.036
Occupation	.065	.106	.044	.001	.030	.001	.103
Duration of disease	.001	.138	.0.61	.020	.070	.127	.033
Frequency of sexual activity	.460**	.728**	.831**	.822**	.823**	.695**	.817**
Ritchie Articular index	-.317**	-.299**	366**	-.299**	-.372**	-.379**	-.513**
ESR: (mm)							
1st hours	-.365**	-.530**	-.540**	-.518**	516**	-.553**	-.627**
2nd hour	-.351**	-.457**	-.492**	-.489**	477**	-.432**	-.513**
CRP	-.292**	-.487**	-.502**	-.472**	466**	-.466**	.-485**
(** p < 0.0)							

Further analysis was conducted using spearman's rank test to determine the correlation between sexual function score , and associated factors as socio- demographic, frequency, history, CRP, ESR, and Ritchie Articular index (RAI). Results are summarized in table(4)This study highlighted that the age, education, occupation, and disease history, were no significant correlation with all sexual domain. On other hand the other associated factor as frequency, CRP, ESR, and Ritchie Articular index ,were highly statistical significant correlation with all sexual domain.

Table (5): Correlation between Female sexual function domains and sexual distress.

Variable	Sexual Function	Desire	Arousal	Lubrication	Orgasm	Satisfaction	Sexual pain
FSDS	-.623**	-.505**	-.635**	-.613**	-.620**	-.545**	-.646**
FSDS= Female sexual distress;(** p < 0.01)							

In this table it was found that there is high statistically significant correlation between all female sexual function domains and sexual distress (Table 5).

Discussion:

It is now increasingly recognized worldwide that sexual health is important for overall good health and well-being after years of neglect in the medical health fields, but in Egypt the research in this topic is still difficult to do survey to determine the incidence or prevalence of FSFD between the Egyptian women, the most previous studies have focused in uremic and little on RE, this is due to that the patient may have difficulty talking to health care provider about sexuality and sexual health. Most

people are not raised to discuss sexual matter openly, when sexuality is taught, and if done a negative term is often used, this due to modesty of the Egyptian women, fear of offending, confidentiality, documentation of details in medical record, to legal risk.Local religious leaders play an important role around talking about sexual issues, and believe that talking about this is taboo and ashamed. This study was aiming to evaluate female sexual function and sexual distress in women diagnosed with SLE. Regarding to age, the current study revealed that the majority (75%) of the study group were in the age group between (19-39years).The explanation for this result due to the SLE, it occurs at the child-bearing age or crucial time in their lives when they try to establish relationships, start families and launch careers. The result of present study was supported by **North American Menopause Society Congress**, nearly 60%of middle-age women (35or more years) reported vaginal dryness, pain during sex, vaginal narrowing, or vaginal shrinkage or increased urinary tract infection. This condition affected their sex since they had stopped or avoided sex due to discomfort [44]. Similer results have been obtained in many studies and reflect that about 30%-35% of women aged 18-70 have reported lack of sexual desire during the previous 1-12 month [45,46,47] .On the contrary,[48] found that the FSFD score was negatively affected by age and improved by HT use.Our study highlighted that the majority of respondents hold secondary school degree, The explanation for this result is due to the disease occurrence in juvenile and young age, therefore it affects the concentration and cognitive function, in addition, the psychiatric condition also affects their ability to progress and complete education. This result is supported by [7,49] who found that the females holding a diploma degree had FSD more than others. [50,51] told that high prevalence of cognitive impairment and slowed thought processes in SLE may be explained by coexisting psychiatric disorder than reflecting subclinical central nervous system (CNS) involvement, and the aetiopathogenesis are not understood. [52,53] added that the function impairment refers to diminished ability to perform activities of daily living, employment and other tasks. A study by [54] revealed that 20% of SLE patients thought that their illness had driven their family apart or worsened their relationship with their partner. In contrast to the findings of **El Nashar et al,** it found that socioeconomic status did not have a significant impact on FSD,[55]. Our study revealed that the knee and hip joint are more affected than other joints in disease activity (DAS28), the results of the present study are consistent with the finding of [56,57]who stated that the sexual desire of most patient diminished, and intercourse become less frequent and less satisfying in affected hip and knee joint made by pain and restriction. Movement not only affect every activities, but also found it difficult to assume sexual intercourse positions and the patient who had unsatisfying sexual relationship reported a decrease demand for intercourse by their spouses and diminished frequency of their own orgasms.[11,46]added that the patient with musculoskeletal disease should be educated about positional change by use muscle relaxants, and expansion of their sexual repertoire, this may improve comfort during sexual activity. On the line of this study [58,59,60] reported that pain, stiffness, fatigue, joint swelling, weight loss, elevated erythrocyte sedimentation rate (ESR), anemia, and disease activity (DAS28) may fluctuate widely during course of disease. Other authors have reported similar finding (61,62,63) **.**As regards sexual function and sexual distress, it was found that all respondent found difficulties to cross all sexual domains, the mean score were (14.1±7.5) and high prevalence of sexual distress, the mean score were (30.3±10.1) associated with all SLE women. Comprehensive literature review by [64]notes that an overall prevalence of the following disorder: desire disorder 5-46%; arousal disorder7-10% and orgasmic disorder7-10%. Other study by **Shokralahoi et al**., in Iran was done and revealed that the prevalence of inhibited desire15%, inhibited orgasm 26%, lack of lubrication 15%, vaginism8 % and dyspareunia 10%; 38% of the women had at least one sexual dysfunction[65].Based on the few community study conducted by [67] revealed that the sexual disability and lass sexual desire or satisfaction among RA patient, 79% had sexual disability with mild and moderate grade, 17% of patient completely unable to do sexual relation, and the majority of patients complain from loss of sexual desire 87%. Among this small number of participants to determining factors associated with reduce of sexual function, it was found that aging as associated factor is no significant correlation with all sexual domain. An explanation may be due to

the disease is active in young or child bearing age. [68]highlighted that psychological factor, pain, medication certainly play a role in causing sexual dysfunction, mechanical factor such as loss of overall mobility, restricted range of motion of the hip joints and fatigue have been implicated as important etiologic factor [69].The former study by [70,71]about 95% of SLE patient experience joint pain, physical disability, and depression at same time in the course of their disease ,chronically ill patients often experience comorbid dysphonic mood and or a tendency towards somatization. [42]added that sexual difficulties are particularly prevalent among women seeking routine gynecological care. This is on contrary with [72,73]who said that the age makes the sexual relationship unimportant, desire and arousal disorder were significantly interrelated with age, educational level, economic and marital status. Lubricating and orgasmic disorder were significant interrelated with age also. Patients with FSD were significantly more likely to be older than 40 years, have sexual intercourse fewer than 3 times a week, lower educational level, chronic disease [8,74]. Our study revealed the highly significant correlation between the frequency of intercourse and the low of all sexual domain function and sexual distress. Some studies have focused on the frequency of sexual intercourse and satisfaction with it. Lower frequency of sexual intercourse, orgasm and decrease desire in female following the onset of disease [56].

[27] reported that just over half (56%) of the respondents found that their arthritis limited sexual intercourse and this limitation was in general symptom-related, fatigue, pain, depression, and reduced joint function being the primary culprits. [11]added that normal sexual function passes through transition from arousal to relaxation with no problem, and with feeling of pleasure, fulfillment and satisfaction. In **1970, Currey** noted that sexual difficulties were more common and more severe among women, primarily due to pain and stiffness in the hip joint, and the frequency of marital problem encountered was proportional to the degree of sexual difficulty. **WHO** added that many women experienced considerable discomfort during sexual intercourse[76]. An explanation of the reasons or causes in our series are undeniable muli-factorial that affect sexual domain not only disease but also several factor effect on sexual function one of the factors is found more than type of disease associated with SLE as (22%) had lupus nephritis, (10%) had hypertension, (2%) had DM , (2%) had CRF ,in addition to common side effect of medications used for treatment of SLE or associated disease. Nevertheless, similar to this result, [77] found that the arthritis was present in 52% of SLE patients, while serositis (cardiopulmonary involvements) was present in 44.1%.10.2%of the patient had persistent proteinuria > 0.5grams/day or greater than 3+,23.7% had cellular casts, and 54.2% had both proteinuria and urinary casts. About 51% of the patients had anemia, 55.9% had leucopenia and 33.9% had thrombocytopenia. [24] reported that SEL is mulisystem disorder, and can cause symptoms that are similar to those seen during menopause as vaginal dryness, associated dyspareunia. [46]added that treatment of chronic illness also can disrupt the sexual response cycle. Other authors have reported similar finding [78,79 ,80]. Also from researcher point view the most important causes may help in decrease of sexual function in addition to practice of female genital mutilation is still widespread in Egypt, as well as social and cultural issues may also be contributing factor to female sexual dysfunction. Some cultures teach women that sex is only for procreation not be enjoyed, or that the most importer issue in a sexual encounter is pleasing the male partner, at her own expense this issues are relevant in male-centric cultures,these causes make women believing that the problem is not serious.Several authors have found that low satisfaction with the relationship is a prominent risk factor for high sexual distress, and that factor such as a history of vaginal orgasm and low frequency of anal sex are protective against female sexual arousal disorder with distress, but not without distress [81,82]**.**Present research showed a meaningful highly statistical relation between domain of sexual function and sexual distress. This result are supported by [83]the sexual dysfunction was also associated with greater overall disability and greater levels of depression. [84]added that psychological and social factor exert a strong impact on the sexual functioning of women with physical disabilities. [85] said that desire disorder is the most prevalent of sexual disorder between all domain of sexual dysfunction. Several authors [10,19,86] reported that women with SLE have impaired sexual function

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in different way. Physical problem (i.e. chronic pain and fatigue) and emotional problem (i.e. low self esteem and depression) can decrease sexual interest and reduce intercourse frequency. Disturbance of hormonal status by corticosteroid treatment and disease activity can reduce libido and interfere with successful reproduction. Partnership difficulties arising from disease-related stress can also contribute to a less active sexual life. [19] said that compared with controls, patients with SLE had a significantly higher rate of abstention (26 vs 4%, p < 0.01), a lower frequency of sexual activity among the sexually active (p < 0.05), diminished vaginal lubrication (p < 0.01), and poorer general sexual adjustment (p < 0.01). Greater disease severity was associated with more impairment in sexual function (p < 0.01). Variables mediating the relationship between diagnostic status and sexual outcome included age (delta R2 = 0.04, p < 0.01), relationship status (delta R2 = 0.03, p < 0.05), weight concerns (delta R2 = 0.05, p < 0.01), premorbid sexual adjustment (delta R2 = 0.04, p < 0.01), and depression (delta R2 = 0.03, p < 0.05). Seventy-two percent of patients with SLE were receptive to physician inquiry about sexual functioning and 82% desired further education about the sexual impact of the disease. In **Wendt's** research, 92% of women consider it appropriate to be asked about sexuality in general.However, 76-99% had never been asked such question [87]. [88,89,90] added that sexuality remains an area that many feel unable to discuss. Nurses need to recognize that sexuality and sexual health is an appropriate and legitimate area of nursing activity, and that they have a professional and clinical responsibility to address it.

Limitation of the Research:

There are many limitations to our study. Firstly, this study was a preliminary study representing a small group of SLE women, this due to increase prevalence of maiden, and sex in Islamic and Arabic countries are not practiced out of marriage frame. Lack of privacy during interviews could also result in underreporting. Topic of sexual health is still a taboo in Egypt and this may contribute to poor response from the community and the nature of the Arab people. One of the limitations in this research was disease activity was assessed by the physicians in retrospect (relying on patient chart review& knowledge of the patient). Finally the other limitation in this study, the patient may feel embarrassed to mention their sexual concerns and the researcher uncomfortable taking a sexual history, as well as the exact incidence of sexual dysfunction in the SLE or general population in Egypt is not clear.

Conclusion:

In conclusion, Sexual dysfunction was highly prevalent in the SLE women and it is strongly associated with increasing ESR and CRP. When assessing the joint by use of Ritchie Articuler Index, it was found that the more affected joints are knee and hip. Also the majority of SLE women at age 19-39 years and secondary school graduates, and the study showed some diseases associated with the systemic lupus erthematosus women as nephritic syndrome, hypertension, DM. As well as the study highlight that all respondents did not cross all sexual domain, and found significant correlation between female sexual dysfunction and sexual distress.Future research should include evaluation of the all diseases can affect sexual function.

Recommendation:

1-Establishing a good nurse-patient relationship is essential for basic sexual and psychological needs counseling to helping the patient feel comfortable talking about their concerns may be achieved through normalizing their concerns and educated about the frequency, therapy and variety of sexual health concerns in the general population, and understand that asking about sexuality.

2-Nurses should understand and support patients during SLE disease exacerbations has been cited as the most important factor leading to an adequate sexual lifestyle adjustment.

3- Stimulate and encourage SLE women to discuss sexual issues openly.

4-Sexual counseling should be introduced early in the SLE patients' hospitalization and should continue to meet the sexual integrity and quality-of-life needs of the SLE patient and her partner, as part of nursing intervention, and rehabilitation , plan future instruction and arrange for post-discharge follow-up.

6-Nurses must be aware of what resources and aids are available and be creative in using them to ensure that the patient's sexual concerns are addressed.
7-Encourge nurses to using education programmes and teaching media to equip nurses with the knowledge and skills for providing sexual counseling.
8-Health-care providers should receive comprehensive training on all aspects relevant to FSF, to deal with couples' sexual problems result of disease including its relationship with sexuality.
9-Mainstreaming comprehensive sexuality education in schools will help youth to understand the functions of the reproductive system and correct existing misconcepts about sexual desire,sexual anatomy and sexual practice and morality.

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