



Original Article

# Correlations among Total Symptom Distress, Uncertainty and Quality of Life among Women With Endometriosis

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## Abstract

**Purpose:** The purpose of this study was to explore the relationships among women's total symptom distress, uncertainty and quality of life in women with endometriosis. **Method:** A total of 121 women who had been diagnosed with endometriosis was given a questionnaire. Data was collected from August 2004 to January 2005. The data was analyzed by frequency, mean, t-test, ANOVA, Pearson correlation coefficient, and multiple linear regression analysis using SPSS WIN 10.0 software. **Result:** The mean score of TSD was 3.23. 'Menstrual cramping' showed the highest score. The mean score of uncertainty, and quality of life of the subject was 56.6, and 38.3 respectively. TSD was significantly related with coffee intake and uncertainty was significantly related with marital status, economic status, alcohol intake, diagnosis after period, and family history. Quality of life was

significantly related with age, and dysmenorrhea. There were significant relationships between total symptom distress and uncertainty, and quality of life. There were significant relationship between uncertainty and quality of life. **Conclusion:** Endometriosis symptoms showed a significant relationship with uncertainty and quality of life. This study will help to manage women with endometriosis.

Key words : Endometriosis, Symptom, Distress, Uncertainty, Quality of life

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2  
10% 가 . 25 (Braden, 1990; Carroll et al., 1999).  
가 30-40% 가  
가  
(Endometriosis association, 2005).

(Strathy et al., 1982).

(Denny, 2004),  
100% 가 가  
(Korean Endometriosis Society, 2004). 가

(symptoms) 1.  
가

(The University of California San Francisco Symptom Management Faculty Group, 1994). O'Neil Morrow (2001)

- 가
- 가
- 가

Lemaire(2004) 가

2.

(Total Symptom Distress: TSD)

1) (Total Symptom Distress: TSD)

가

(Lemaire, 2004),

20% 12  
, 50% 5

Lemaire(2004) symptom checklist 가  
23

(Garner, 1996; Henderson & Wood, 2000).

가  
(Garner,

가  
(TSD)가

1996).

가

2)

가  
, 가

가

가

가 (Lemaire, 2004).

(Mishel, 1988).

Garry, Clayton Hawe(2000)

Mishel uncertainty in illness scale-community form(MUIS-C)(Mishel, 1990), 가

3) (subjective wellbeing) 가 (TSD) TSD  
0 9 가 Lemaire(2004) TSD  
Cronbach's  $\alpha$  .94  
Cronbach's  $\alpha$  .95

Jones (2004) Short-Form Endometriosis Health Profile Questionnaire: the EHP-5 가 2)  
Mishel (1990) 가 23 , 5  
' 1 , ' 5  
23 115 가  
Mishel(1990) .74-.92  
Cronbach's  $\alpha$  .85

1. 가 3)  
Jones (2004) Short-Form Endometriosis Health Profile Questionnaire: the EHP-5 가  
5 5 , ' 1  
' 5 25 100  
7 , 가

121 2004 8 1 Cronbach's  $\alpha$  .82  
2005 1 31 가 Cronbach's  $\alpha$  .80

2. 가 4.  
20 SPSS WIN 10.0

3. 가 14  
, , t-test One-way  
ANOVA

1) Lemaire(2004)가 symptom  
checklist 가 20  
가 3  
23 1.  
' 0 , ' 3  
, ,

<Table 1>  
(TSD)

3.26±1.38 (range 0-9) TSD가 가 23-115) , 38.3±4.8 (range; 0-100) <Table 2>. 6.23±2.68 , 5.79±2.55 . 가 0.97±1.53

<Table 1> Total Symptom Distress(TSD) of subjects (N=121)

Symptom	Range	Mean	SD
Menstrual cramping	0-9	6.23	2.68
Lower back pain	0-9	5.79	2.55
Fatigue/weariness	0-9	5.28	2.44
Heavy menstrual flow	0-9	4.53	2.94
Depressed feeling	0-9	4.30	2.80
Anxious feeling	0-9	4.09	2.95
Headache	0-9	3.91	2.58
Muscle/bone pain	0-9	3.47	2.85
Infertility <sup>a</sup>	0-9	3.41	3.65
Urinary frequency	0-9	3.32	2.73
Constipation	0-9	3.24	2.80
Leg pain	0-9	3.23	2.74
Non-period pelvic pain	0-9	3.00	2.65
Pain with intercourse	0-9	3.00	2.47
Joint pain	0-9	2.93	2.92
Epigastric pain	0-9	2.67	2.16
Right low abdominal pain	0-9	2.33	2.30
Diarrhea with period	0-9	2.13	2.37
Rectal pain	0-9	2.05	2.48
Spotting between period	0-9	1.90	2.43
Yeast infection	0-9	1.74	2.32
Allergy	0-9	1.51	2.07
Urinary infection	0-9	0.97	1.53
Total	0-9	3.26	1.38

<sup>a</sup> has missing value

2.

56.6±12.5 (range; (t=3.004, p<0.01), (F=2.367, p<0.05),

<Table 3> TSD, uncertainty and quality of life according to general characteristics (N=121)

Characteristics	Category	f(%)	TSD		Uncertainty		Quality of life	
			Mean ±SD	t or F	Mean ±SD	t or F	Mean ±SD	t or F
Age (year)	20-29	27(22.3)	3.57±1.25	1.740	60.2±11.4	2.606	46.5±20.6	3.754**
	30-39	63(52.1)	3.31±1.46		56.9±13.1		34.6±20.1	
	40 over	31(25.6)	2.28±1.26		52.7±11.5		39.0±13.4	
Marital status	Unmarried	24(19.8)	3.46±1.34	0.716	63.3±11.8	3.004**	43.5±23.2	1.494
	Married	97(80.2)	3.23±1.40		55.0±12.2		37.0±17.9	
Education	High school ↓	50(41.3)	3.04±1.37	2.078	58.0±13.9	1.081	39.9±19.0	0.569
	College ↑	71(58.7)	3.42±1.37		32.5±11.4		37.2±19.3	
Religion	Yes	88(72.7)	3.27±1.40	0.099	56.8±12.3	0.368	39.8±19.6	1.390
	No	33(27.3)	3.24±1.35		55.8±13.4		34.4±17.8	
Job	Yes	57(47.1)	3.19±1.40	-0.622	58.2±12.4	-1.393	40.6±18.5	-1.241
	No	64(52.9)	3.35±1.36		55.0±12.5		36.3±19.7	

<Table 2> Mean score of uncertainty and quality of life in endometriosis

Variable	Range	Min	Max	Mean	SD
Uncertainty	23-115	30	85	56.6	12.5
Quality of life	0-100	0	85	38.3	4.8

3.

<Table 3>

30-39 가 63 (52.1%), 40 31 (25.6%), 20-29 27 (22.3%) . 가 97 (80.2%) , 71 (41.3%) 50 (41.3%) . 가 88 (72.7%) 가 64 (52.9%), 가 57 (47.1%) . 200-300 46 (38.0%) 가 , 가 72 (59.5%) 49 (40.5%) . 가 63 (51.2%), 가 58 (47.9%) , 가 93 (76.9%), 가 28 (23.1%) . (t=2.699, p<0.01) 가 3.88±1.49 3.08±1.30

<Table 3> TSD, uncertainty and quality of life according to general characteristics(continued)

(N=121)

Characteristics	Category	f(%)	TSD		Uncertainty		Quality of life	
			Mean ± SD	t or F	Mean ± SD	t or F	Mean ± SD	t or F
Income (million won)	1 ↓	11(9.1)	3.53±1.71	0.451	60.2±14.4	2.367*	49.5±19.6	1.884
	1-2 ↓	26(21.5)	3.11±1.15		53.9±12.9		36.7±27.1	
	2-3 ↓	46(38.0)	3.15±1.58		58.2±12.7		34.8±16.5	
	3-4 ↓	19(15.7)	3.45±1.20		61.1±9.98		44.4±9.98	
	4 ↑	19(15.7)	3.48±1.19		51.1±10.0		36.6±17.5	
Exercise	Yes	72(59.5)	3.41±1.10	1.008	55.9±11.9	0.596	38.5±17.5	-0.145
	No	49(40.5)	3.16±1.54		57.4±13.4		38.0±21.6	
Alcohol	Yes	63(52.1)	3.22±1.29	0.519	59.6±12.5	-2.726**	40.3±18.5	-1.001
	No	58(47.9)	3.36±1.43		53.4±11.9		36.8±19.4	
Coffee	Yes	93(76.9)	3.08±1.30	2.699**	57.3±12.4	-1.354	36.9±18.0	1.489
	No	28(23.1)	3.88±1.49		53.6±12.8		43.1±22.5	

\* p<0.05 \*\* p<0.01

TSD : Total Symptom Distress

(t=-2.726, p<0.01) 가 (67.8%) , 가 62  
 400 (51.2%) , 1-3 가 52 (46.3%) 가  
 가 1-3 가 110 (90.0%)

(F=3.754, p<0.01) 20-29

가

4. , (F=4.009, p<0.01), 가 (F=-2.942, p<0.01) ,  
 1-3 가

<Table 4>

가 82

<Table 4> TSD, uncertainty and quality of life according to disease characteristics

(N=121)

Characteristics	Category	f(%)	TSD		Uncertainty		Quality of life	
			M ± SD	t or F	M ± SD	t or F	M ± SD	t or F
<sup>a</sup> Menstrual cycle	Regular	82(67.8)	3.29±1.34	0.284	55.7±12.4	-1.208	37.3±18.8	-0.967
	Irregular	38(31.4)	3.21±1.49		58.6±12.6		40.9±20.2	
Menstrual amount	Much	34(28.1)	3.46±1.29	1.790	57.7±11.9	0.340	42.2±17.3	1.409
	Moderate	62(51.2)	3.02±1.41		56.2±13.3		35.0±19.1	
	Less	23(19.0)	3.73±1.34		56.6±11.7		42.3±21.9	
<sup>a</sup> Period after diagnosis(year)	1 ↓	9( 7.4)	2.45±1.46	1.673	52.8±10.8	4.009**	41.7±12.9	0.890
	1-3 ↓	56(46.3)	3.35±1.16		60.6±13.4		40.3±18.5	
	3-5 ↓	38(31.4)	3.28±1.48		52.2±10.9		34.7±21.9	
	5 ↑	13(10.7)	3.81±1.64		57.7±9.25		42.3±16.1	
<sup>a</sup> Period of treatment(year)	1 ↓	27(22.3)	3.56±1.34	1.406	55.6±13.7	0.431	38.3±22.4	0.515
	1-3 ↓	52(43.0)	3.08±1.38		55.1±12.2		39.0±18.4	
	3 ↑	27(22.3)	3.53±1.46		58.4±11.5		34.4±17.3	
Family history	Yes	11(10.0)	4.01±1.87	-1.558	68.1±12.9	-2.942**	49.4±26.9	-1.795
	No	110(90.0)	3.22±1.34		55.7±12.1		27.5±18.4	

\*p<0.05 \*\*p<0.01 \*\*\*p<0.001 <sup>a</sup> has missing value

5.

TSD

TSD  
(t=2.669, p<0.01)

TSD가

가

가

<Table 5>

0.372, 0.510

가

0.324

가

56.6

가

Lemaire(2004)

65.03

Lemaire

Lenz(1995)

63.37

가

Deane

Degner(1998)

<Table 5> Correlations among TSD, Uncertainty and Quality of life

55.35

(t=3.004, p<0.01),

Variables	Uncertainty	Quality of life
TSD	0.372**	0.510**
Uncertainty		0.324**

(t=2.367, p<0.05),

(t=-2.726, p<0.01),

(t=4.009, p<0.01), 가

(t=-2.942, p<0.01)

\*\*p<0.01

1-3

가

가

가

Kim (1998)

가

가

(TSD)

3.26±1.38

가

가

6.23

5.79

5.28

Lemaire(2004)

TSD가

가

6.24

6.23

(Korean Association of Obstetric & Gynecology,

5.41

TSD

1997)

가

TSD

3.0

Lemaire(2004)

400

가

가

가

Lemaire(2004)

1-3

(Denny, 2004)

가

가

가

가

가

가

가

가

(Kim et

가

al., 1998; Malinak, 1980)

가

가  
(Coulter et al., 1994).  
38.3  
가  
Power가 Ferrans 121 가  
Quality of Life Index 2004 8 2005  
Rannestad (2000) , SF 36 1 SPSS  
Miller(2000) , Pearson correlation coefficient, t-test, ANOVA

가 (TSD)  
3.26 , 23 TSD가 가  
6.23±2.68  
(F=3.754, p<0.01) 20-29 56.6±12.5 , 38.3±4.8  
Kim (1998)

30-39

30-39 가

가

가

가

가

가

Lemaire(2004)

0.510

가

(Braden, 1990; Carroll et al., 1999).

Cox (2003)

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