



## Gender Differences: Paranormal Beliefs and Maladaptive Emotional Schemas

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### ABSTRACT

*This study aimed to assess and compare the level of paranormal beliefs and maladaptive emotional schemas between both genders, males and females suffering from Functional Neurological Symptom disorder (FNSD). One hundred thirty-four patients (67 males & 67 females) between 14 years to 24 years having functional neurological symptoms disorder were approached through a purposive sampling strategy from the psychiatric wards of the government and private hospitals in Lahore. The questionnaires of RPBS (Toback, 2004) and LESS-II (Leahy, 2002) were applied to assess paranormal beliefs and maladaptive emotional schemas, respectively. The results of the Independent sample t-test show that female patients experience a significantly different paranormal witchcraft beliefs;  $t(132) = 18.15, p = .000$ , two-tailed, and superstitions beliefs;  $t(132) = 33.704, p = .000$ , two-tailed. The effect of Cohen ( $d = 1.705$ ) is higher and more in females than males. In addition, findings also show the statistically significant gender difference on emotional schemas of invalidation;  $t(132) = 2.25, p = .026$ , two-tailed, on a simplistic view of emotions;  $t(132) = 33.704, p = .000$ , two-tailed, on low expression;  $t(132) = 5.716, p = .000$ , two-tailed and on blame;  $t(132) = -2.372, p = .019$ , two-tailed. The effect size of Cohen ( $d = 0.629$ ) is medium, however, more in females than males. This study concluded that female FNSD patients need to be more focused on modifying their paranormal witchcraft and superstitious beliefs and maladaptive emotional schemas of invalidation, simplistic view of emotions, and blaming to control them than males. Therefore, males should be adjusted for the emotion of low expression, which could be done through emotional focus therapy.*



### Introduction

Highly deleterious life experiences develop magical thinking (Hoffmann et al., 2022; Liu et al., 2021) and negative emotional schemas in both genders (males and females), leading to psychopathology (Leahy, 2019). Paranormal believers use magical thinking to understand their ambiguous life experiences to cope well (Baker and Bader, 2014; Castro, 2019), and emotional schemas are the interpretations of self and others' emotions according to individual's preferences (Leahy & Tirch., 2011). Research shows that paranormal beliefs (Liu et al., 2021; Thalbourne & Storm, 2019) and emotional

schemas (Naderi et al., 2015) play a significant role in several psychiatric disorders in males and females, including anxiety, depression, alcohol abuse, posttraumatic stress disorder, marital conflicts, psychosis, and personality disorders. Further research must also examine their roles in Functional Neurological Symptom Disorder (FNSD), one of the highly prevailing mental ailments in neurology; about one in six young adults with any subtype of symptoms suffer (Ijaz et al., 2017).

Mysteriously, FNSD patients show neurological symptoms without devising any neurological disease (Fobian & Elliott, 2018), and these somatic symptoms indicate challenging life glitches (Espay et al., 2018). In addition, extremely toxic life experiences of a person lead to emotional damage, which alters the individual's cognitive-perceptual experience resulting in functional neurological symptoms (Morris et al., 2018).

The diagnostic criteria according to the Diagnostic Statistical Manual of Mental Disorder 5-TR (DSM5-TR) by the American Psychiatric Association (APA, 2022) for FNSD is **functional sensory symptoms** (tunnel vision, loss of vision, diplopia, anesthesia, aphasia, and a lump in the throat (Globus), **functional motor symptoms** (altered movements, gait disorders, dystonia, myoclonus, jerks, tremor) and **mixed symptoms** with and without psychogenic seizures disorder.

FNSD origin is still vague (Lidstone et al., 2022), so several researchers are exploring its risk factors. Various etiological factors of FNSD have been discovered in different regions of the world and Pakistan, mainly related to family stressors from which most females suffer (Bokharey et al., 2021). There is a need to determine the role of paranormal thoughts and emotional schemas represented by gender differences.

Nearly every culture worldwide has paranormal beliefs; even modern cultures, such as the United States, also exhibit paranormal beliefs with 75 % of their population (Bader et al. 2017). A Paranormal is an experience that scientific laws cannot comprehend (Toback, 2004). It means that paranormal beliefs and science are opposite and only convinced with assumptions (Force, 2018). Research has shown that paranormal believers accept these supernatural assumptions without evidence (Marchlewska et al., 2021). It is also stated that supernatural beliefs in people have increased extensively over the last few decades (Wilkinson College, 2018), as about 70 % of the world's population believes in fortune (Pew, 2017). There is a lack of relevant data for the clinical population related to gender differences using Revised Paranormal Beliefs Scales in the patients with FNSD. As a result, the present research tries to fill this gap by studying the seven types of paranormal beliefs mentioned below to get more recent results regarding gender differences in these beliefs.

According to Toback (2004), there are seven components of paranormal beliefs arising as a coping strategy, which are **traditional religious beliefs** (divine, angels, demons, gods, and the devil), **psi beliefs** (mind reading and telepathy), **witchcraft** (black magic), **spiritualism** (religious beliefs), **extra-life forms** (bigfoot, ghosts, hunting, and zombies), **precognition** (prediction of the future), and, **superstitions** (magical beliefs, fate, luck, and miracles). Likewise, Leahy mentioned that when a negative emotion develops after an adverse emotive experience, persons are concerned about the **duration, lack of control, invalidation, incomprehension, shame or guilt, non-acceptance, rumination, blaming, over rational, devaluing, simplistic view, and lack of expression** of that emotion (Leahy, 2019). Despite the high prevalence, there is a dearth of research regarding the role of paranormal beliefs and emotional schemas simultaneously in FNSD patients. This study was conducted to ascertain the gender differences between seven paranormal subtypes and fourteen emotional thinking style subdomains.

### Literature Review

FNSD was previously called hysteria, a Greek word that means uterus, and later called conversion disorder and believed that the uterus roving inside the body (itinerant womb) was the basis of hysteria (Trimble & Reynolds, 2016). People also associated it with black magic and devil possession ((Novais et al., 2015). Later during the 17<sup>th</sup> century, several researchers focused on the mind instead of the uterus, causing hysteria because the uterus is not the only source of this functional illness because men also suffer from it (Jankovic, 2020).

The novel Freudian model (1912) proposed that repression of emotions during dealing with distress can convert into neurological symptoms. Espay et al. (2018) explained that the new model of hysteria is still built on adverse childhood experiences like psychological trauma, which altered the thought process of an individual. The main risk factor for FNSD is stress and trauma (Ludwig et al., 2018). Emotional trauma and FNSD are positively associated (Kanaan, 2016). Although Hashmi et al., (2012) described no specific age for developing FNSD, it can also appear in children and elders, from teenagers to older adults, after facing an adverse life experience. Trauma changes the image or perception of experience (Baizabal-Carvalho, 2019). Extreme stress changes an individual's sensory and

motor functions and converts them into neurological and somatic symptoms (Baizabal-Carvalho, 2019; Espay et al., 2018).

Past researches has approved gender differences in the etiology of FNSD. The male-female ratio for developing FNSD is 1:3 (Stone et al., 2009). Furthermore, both genders exhibit the symptomology of FNSD differently; the subtype Functional Movement Disorder (FMS) is more common in females than males 75%, including a high rate of dystonia in women 84% (Baizabal-Carvalho & Jankovic, 2020). Lidstone et al. (2022) show that the women population is 70% more affected by functional motor symptoms than men, like females having parkinsonian symptoms at 51.8% and jerks/myoclonus at 63.7% more than males. They further stated that facial symptoms and dystonia are more in women, 83.6% and 78.4%, respectively. Tinazzi et al. (2020) stated that in their mid-life, 70% to 75% of females are affected by motor symptoms. However, other researches showed that mixed type is more common symptoms, including dystonia, tremor, and weakness (Gelauff et al., 2020; Vechetova et al., 2018). Mainly the onset of dystonia exists in the youngest patients and gait disorder in the oldest age group (Batla et al., 2013). Females have more functional seizures in their late teens and 20s due to traumatic experiences faced at younger ages (Goldstein et al., 2019).

Superstition (fate and luck effect on the real world) is associated with mental illness, e.g., neurosis (Vyse, 2013) and with irrational beliefs (Hoffmann et al., 2022). Paranormal beliefs help to resolve the pressure of life in an ineffective way (Marchlewska et al., 2021). Despite paranormal beliefs being linked with poor functioning, on the other hand, they are linked with adaptive functioning, too (Betsch et al., 2021; Kanazawa, 2015). They help both genders to develop their self-concept and purpose for life (Drinkwater et al., 2017). Resolve uncertainty and increase meaning in life after loss (Drinkwater et al., 2022). As productive thinking does, emotions also play a vital role in mental health. The research mentioned the relationship between emotional dysregulation and psychological disorders (Naderi et al., 2015). Previous researchers have not sought emotional regulation much (Monrouxe et al., 2015). There is a need to study cognitive and emotional factors leading to FNSD in both genders. Scientists have already discovered the cognitive schemas (content) of paranormal beliefs, so exploring the emotional schemas of these magical beliefs is necessary because every experience has a cognitive and emotional interpretation (Leahy, 2019). Still, additional work is mandatory because the previous studies considered inconsistent results in this area; thus, recent research was essential to look for evidence by adding new variables.

This study hypothesized that gender differences exist in paranormal beliefs and emotional schemas in male and female's young patients suffering from Functional Neurological symptom disorder. A dearth of research has been found comprising subtypes of paranormal beliefs and maladaptive emotional schemas simultaneously in FNSD patients with gender differences. No literature was found comparing the Leahy-II scales of emotional schemas and the Tobackey Revised Paranormal Beliefs Scales of paranormal thinking regarding gender differences in patients with FNSD. So this study is unique in nature.

### **Theoretical Background**

Wade et al. (2017) presented the biopsychosocial model which states that illness and health are the outcomes of an interaction between biological, psychological, and social factors. The term biopsychosocial was first theorized by George Engel in 1977, proposing that in order to understand an individual's health condition is not merely the biological factors (genes) to reflect but also the psychological (thoughts, emotions and behaviors) and social factors (family, society and economics) (Crittenden et al. 2021). Similarly, gender can also be considered biopsychosocial because it is a multifaceted and complex interrelationship between body, personality and social features (Iantaffi, 2017). Kozłowska's Functional Somatic Symptom model uses a biopsychosocial approach to understand somatic symptoms (Kozłowska et al., 2020). Most trauma and violence models are also biopsychosocial (Sweeney et al., 2018). The present study used a biopsychosocial narrative to assess gender differences in paranormal beliefs and emotional schemas.

Merced (2018) explained paranormal beliefs through the biopsychosocial theory as they can be developed during biochemical changes in the body, like near-death experiences, precognition dreams, and altered vision. Moreover, psychological experiences also develop paranormal beliefs like bereavement, trauma, and stress, where people experience the visit of the deceased and hear their voices too. They also start believing in supreme powers to cure their sufferings during misfortune and endorse more religious beliefs. Socio-cultural factors also contribute to magical thinking as people living in the same culture have similar beliefs, like almost all youths share the same beliefs of their particular background (Harder, 2001). Due to the scarce data in this field, researchers in this study proposed that

magical thinking could alleviate emotional thinking in both genders differently because males and females think and perceive situations inversely (Vries et al., 2014).

### **Objectives**

The main objectives of this study were:

- Males and Females are different in Paranormal Beliefs.
- Males and Females are different in Emotional Schemas.

The following hypotheses were formulated:

### **Hypotheses**

- Both genders (males and females) with Functional Neurological Symptom Disorder score differently on Paranormal Beliefs.
- Both genders (males and females) with Functional Neurological Symptom Disorders score differently on Emotional Schemas.

## **Research Methodology**

Research methodology of this study is as following:

### **Design**

The cross-sectional research design was applied in the current research.

### **Sampling Strategy**

The data was collected by using a non-probability purposive sampling strategy.

### **Sample**

FNSD patients were approached from psychiatric wards of different hospitals in Lahore. The sample size was calculated by G-Power analysis, which comprised 134 participants N= (67 male & 67 female), with ages ranging between 14 to 24 years.

### **Inclusion criteria**

Patients with all types of FNSD symptoms were included in the sample, like functional sensory, functional motor, and mixed symptoms with or without non-epileptic seizures.

### **Exclusion Criteria**

Patients with physical, mental, or neurological comorbidity were excluded from the sample. For example, epilepsy, cancer, HIV/Aids, and addiction.

### **Measurement Tools**

#### **The Revised Paranormal Beliefs Scale (RPBS).**

The Urdu version of RPBS, translated by (Riaz & Kausar, 2013), and developed initially by Jerome J. Toback (2004), was used for measuring the level of paranormal beliefs in FNSD patients. It has 26 statements that measure seven dimensions of Paranormal Beliefs with 7 points Likert scale. It starts from totally disagree to totally agree. The high score depicts the high level of PBS. The subscales score consists of TRBs = M = (1, 8, 15, 22), Superstitions = M = (4, 11, 18), psi = M = (2, 9, 16, 23), spiritualism = M = (5, 12, 19, 25), witchcraft = M = (3, 10, 17, 24), ELF = M = (6, 13, 20), precognition = M = (7, 14, 21, 26) and item 23 is reverse scored. The Cronbach's Alpha of this scale is .705 (Haider, 2019). This scale is valid and reliable (Drinkwater et al., 2017).

#### **Leahy Emotional Schemas Short Scale-(LESS-II).**

The Urdu version of The Leahy Emotional Schema Short Scale, translated by (Ali & Bokhary, 2015), originally developed by Robert L. Leahy (2002), was administered to assess the maladaptive emotional schemas reported by FNSD patients. It is a 28-items questionnaire with 14 sub-dimensions that need to report emotional reactions experienced during the last month on a 6-point Likert scale. It is starting from very untrue to very true. For test scoring, we need to reverse Items no. 4, 6, 14, 15, 19, 24, 25, and 26. The subscales are Invalidation= M = (8,16,), Incomprehension = M = (5,10), Guilt =M =(4,14,26), Simplistic view of emotion =M= ( 18,), Devalue =M= ( 21,25), loss of control =M= (7,27), Numbness= M= ( 15), Overly rational= M= (17), Duration =M= (13), Low consensus = M = (3, 19), Non-acceptance =M=(2,9,12,20,28), Rumination=M= (1,24), Low Expression=M= (6,23), Blame=M= (11).The scores of items are subtracted from the total score. The Cronbach alpha of this scale is .81 (Leahy, 2002).

### **Demographic Information Questionnaire**

A demographic data sheet was developed to gather participants' personal information, which helped to collect an appropriate sample for research.

### **Data Collection Procedure**

Three public and private hospitals in Lahore (Services Hospital, General Hospital, and Fountain House) were selected to collect the data. The psychiatrist and psychologists in inpatient and outpatients

were requested to refer patients of FNSD for samples.

Initially, a 20-patient sample pilot study was administered to check the suitability of assessment tools and statistical analysis appropriateness for the sample. The respondent did not report any difficulty in the comprehension of scales. Hence, the data from the pilot study was added to the main study.

Total 134 participants, including 20 participants of the pilot study, were comprised in the main study to assess the relationship between maladaptive emotional schemas and beliefs of the paranormal among young patients of FNSD. The purpose of this research was described to the respondents, and their consent was taken. All the included patients were instructed to react to the questionnaire items according to the scale level to which they could primarily relate. Patients were briefed about their confidentiality so they could give responses freely.

## Results

The results of the study are as following:

**Table 1**

### Demographics Characteristics of the Sample by Gender

Characteristics	Male		Female	
	F	%	F	%
<b>Mean age in years</b>				
<i>14-18</i>	26	38.8	31	46.3
<i>19-25</i>	41	61.2	36	53.7
<b>Education</b>				
<i>Matric</i>	25	37.3	27	40.3
<i>Intermediate</i>	17	25.4	29	43.3
<i>Undergraduate</i>	19	28.4	9	13.4
<i>Postgraduate</i>	6	9.0	2	3.0
<b>Religion</b>				
<i>Muslim</i>	54	80.6	53	79.1
<i>Non-Muslim</i>	13	19.4	14	20.9
<b>Marital Status</b>				
<i>Married</i>	18	26.9	7	10.4
<i>Single</i>	26	38.8	29	43.3
<i>Separated</i>	8	11.9	10	14.9
<i>Divorced</i>	10	14.9	9	13.4
<i>Widow</i>	5	7.5	12	17.9
<b>Profession</b>				
<i>Unemployed</i>	24	35.8	45	67.2
<i>Employed</i>	43	64.2	22	32.8
<b>Area of Residence</b>				
<i>Rural</i>	46	68.7	49	73.1
<i>Urban</i>	21	31.3	18	26.9
<b>Family System</b>				
<i>Nuclear</i>	37	55.2	25	37.3
<i>Joint</i>	30	44.8	42	62.7
<b>Total Number of Family Members</b>				
<i>1-2</i>	12	17.9	32	47.8
<i>3-4</i>	24	35.8	14	20.9
<i>5-6</i>	25	37.3	16	23.9
<i>Above 7-11</i>	6	9.0	5	7.5
<b>Family status</b>				
<i>Lower Class</i>	13	19.4	11	16.4

<i>Middle Class</i>	44	65.7	46	68.7
<i>Upper-Class</i>	10	14.9	10	14.9
<b>Types of FNSD</b>				
<i>Sensory</i>	1	1.5	42	62.7
<i>Motor</i>	60	89.6	1	1.5
<i>Mixed</i>	6	9.0	24	35.8
<b>Duration of FNSD</b>				
<i>Acute (6 months)</i>	21	31.3	24	35.8
<i>Chronic (more than 6 months)</i>	46	68.7	43	64.2

Note: M=Mean, SD=Standard Deviation, f=Frequency, %=Percentage.

Table 1 shows descriptive statistics about the sample characteristics according to gender. Participants in the current study were 134 FNSD-diagnosed patients, including both genders equally (male=50%, female=50%). Most female patients (43%) had an intermediate level of education. Maximum female participants were from the joint family system (62%), and (73%) were from a rural family background. Most male participants (61%) were between the age ranges of 19 years to below 25 years and were Muslims (81%). 68% females were belonged to middle class. Majority of the male patients (64%) suffered from chronic FNSD and mostly (68%) had motor symptom complaints.

**Table 2**

**The Independent sample t-test compares the Means of Males and Females on Emotional schemas.**

Variables		Mean	Standard deviation	Levin test		Mean Difference	d	t	f	Significant level
				F	Significance level					
<b>Invalidation</b>	<b>Males</b>	5.33	1.54	20.08	.000	-.47	0.305	-2.25	132	.026
	<b>Females</b>	5.79	.74				0.635			
<b>Simplest view of emotion.</b>	<b>Males</b>	3.53	1.76215	12.852	.000	-.82836	0.470	-2.96	132	.004
	<b>Females</b>	4.36	1.4688				0.563			
<b>Low Expression</b>	<b>Males</b>	4.89	1.824	8.44	.004	1.92537	1.055	5.716	132	.000
	<b>Females</b>	2.97	2.066				0.648			
<b>Blame</b>	<b>Males</b>	4.12	1.49	8.25	.005	-.55224	0.370	-2.37	132	.019
	<b>Females</b>	4.66	1.18				0.468			
<b>Leahy Emotional schemas total score</b>	<b>Males</b>	113.78	23.076	7.393	.007	-6.66	0.289			.034
	<b>Females</b>	120.43	10.588				0.629	-2.15	132	

Note: \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ ,  $t$ =Statistical Difference,  $df$ =degree of freedom,  $p$ =significant value

The Independent sample t-test was conducted to compare males' and females' emotional schemas. Table 2 revealed that the significance level for emotional schemas for invalidation, simplistic view of emotions, low expression, and blame differs in women than males with FNSD. Moreover, the significance level for paranormal beliefs, except for incomprehension, guilt, devaluation, overly rational, non-acceptance, low

consensus, rumination, non-acceptance, loss of control, and duration, was less than 0.05. Therefore, women with emotional schemas have more subtypes of invalidation, simplistic view of emotion, and blame than males with FNSD; males have high emotional schemas of low expression than females.

Furthermore, the results of the Independent sample t-test also revealed that the gender differences in the scores of males ( $M=5.33$ ,  $SD=1.54$ ) and females ( $M=5.79$ ,  $SD=.74$ ) on invalidation;  $t(132) = -2.25$ ,  $p=.026$ , two-tailed. Moreover, the gender differences in the scores of males ( $M=3.53$ ,  $SD=1.76215$ ) and females ( $M=4.36$ ,  $SD=1.4688$ ) on a simplistic view of emotions;  $t(132) = 33.704$ ,  $p=.000$ , two-tailed. Again, the gender differences in the scores of males ( $M=4.89$ ,  $SD=1.824$ ) and females ( $M=2.97$ ,  $SD=2.066$ ) on low expression;  $t(132) = 5.716$ ,  $p=.000$ , two-tailed. Lastly, the gender differences in the scores of males ( $M=4.12$ ,  $SD=1.49$ ) and females ( $M=4.66$ ,  $SD=1.18$ ) on blame;  $t(132) = -2.372$ ,  $p=.019$ , two-tailed. The magnitude of the effect of Cohen ( $d=0.629$ ) is medium but high in females than in males.

**Table 3**

**The Independent sample t-test compares the Means of Males and females on paranormal beliefs.**

Variables	Genders	Mean	Standard deviation	Levin test	Significance level	Mean Difference	d	t	df	Significant level
				<b>F</b>						
Witchcraft	Males	2.16	1.491	6.78	.010	3.98	2.669	18.15	132	.000
	Females	6.14	.997				3.991			
Superstitions	Males	1.37	.136	7.051	.009	5.154	37.89	33.704	132	.000
	Females	6.52	.5261				9.796			
Paranormal Beliefs Total score	Males	141.61	19.18	.131	.718	29.239	1.524	9.301	132	.000
	Females	112.37	17.14				1.705			

*Note: \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ ,  $t$ =Statistical Difference,  $df$ =degree of freedom,  $p$ =significant value*

The Independent sample t-test was conducted to compare males' and females' paranormal beliefs, and table 3 revealed that the significance level for paranormal beliefs for witchcraft and superstitions is different in women than men with FNSD. Moreover, the significance level for paranormal beliefs except for psi, spiritualism, traditional religious beliefs, precognition, and extra-life forms was less than 0.05. Therefore, women with FNSD have more paranormal beliefs of witchcraft and superstitions than males with FNSD.

Furthermore, the results of the Independent sample t-test revealed the gender differences in the scores of males ( $M=2.16$ ,  $SD=.997$ ) and females ( $M=6.14$ ,  $SD=1.491$ ) on witchcraft;  $t(132) = 18.15$ ,  $p=.000$ , two-tailed. The results of the Independent sample t-test also revealed the gender differences in the scores of males ( $M=1.37$ ,  $SD=1.136$ ) and females ( $M=6.52$ ,  $SD=.526$ ) on superstitions;  $t(132) = 33.704$ ,  $p=.000$ , two-tailed. The effect size of Cohen ( $d = 1.705$ ) is higher and elevated in females more than in males.

### Discussion

This research attempts to promote the role of psychological factors (paranormal beliefs and emotional schemas) in the differences between genders. This analysis concurs with various lines of the earlier investigations conducted on both genders. Several studies explained strong associations between paranormal beliefs and psychopathologies in males and females, like psychosis, depression, anxiety, and irrational thinking (Escola-Gasoon, 2020). Similarly, many previous kinds of research report a high connotation between emotional schemas and psychological disorders like depression and anxiety (Leahy, 2019). This present study collectively suggests that both genders (males and females) suffering from FNSD endorse various paranormal beliefs and maladaptive emotional schemas differently.

The demographic characteristics of the current sample proved that unemployed, single females living in rural areas, belonging to the middle class and joint families, are a vulnerable group for magical and emotional thinking patterns developing FNSD. The observed differences are consistent with previous findings. For example, the symptoms of this disabling ailment are triple times more in females than males (Stone et al., 2009). Findings about gender differences in this study also showed that less educated females endorse more paranormal beliefs than males. It is supported by past findings suggesting that highly

educated people endorse fewer paranormal beliefs compared to less educated people (Baker et al., 2016). It is common in people to have faith in certain mysterious beliefs, like the existence of hunted places, but they do not believe in certain magical beliefs, like the non-existence of Bigfoot (Bader et al.2017).

The first hypothesis was that there is likely a gender difference between males and females with Functional Neurological Symptom Disorder in paranormal beliefs. Hence, the findings of this study show a significant difference in scores for the two subtypes of paranormal beliefs of witchcraft and superstitions. It shows that females have high scores on these beliefs compared to males. In other words, females practiced these supernatural beliefs more than males. On the contrary, these results also exposed that males and females equally practice paranormal beliefs of traditional religion, spiritualism, psi, precognition, and extra-life form. Previous research also proved our results that females have firmer paranormal beliefs than males (Aarnio & Lindeman, 2005; Pennycook et al., 2012; Ram et al., 2016). Another study in Hong Kong revealed that males appeared to display fewer superstitious beliefs than females (Wrong, 2012). These differences exist due to their thinking patterns, as females think less analytically than males, who usually practice analytical thinking (Masood, 2015). These variances are due to gender roles (Wright, 2012).

The findings of the second hypothesis also show significant gender differences in mean scores on four dimensions of maladaptive schemas of invalidation, simplistic view of emotions, low expression, and blame between females and males. Furthermore, females are highly showing these schemas more than males. Additionally, the emotional schemas of incomprehension, guilt, devaluation, duration, rumination, loss of control, numbness, overly rational, non-acceptance, and low- consensus are similar in males and females both. In short, both genders are dissimilar on four schemas but similar in expressing the ten emotional schemas equally. Previous finding suggest that males have more schemas of these results (Korucu, 2016).

Leahy (2019) believes that people use their emotional schemas as an adaptive strategy in life functioning. However, when they use maladaptive schemas for emotional experiences, they think other people would invalidate, disregard their emotions, and believe they mean nothing. Moreover, the males believe in low expression of emotion during emotional charge. It means they consider that expressing emotions is wrong and shameful, so they should not express them freely, and it is a sign of weakness, but they need to repress, hide and suppress emotions from others. Through this, they also try to blame themselves and the environment. It is a short-term strategy to control stressors, but it affects their coping skills in the long term. They use maladaptive strategies like blame and non-expression. They do not validate their emotion and lack of need to express them. Even they blame places, people, and things that bring these strong emotions. Consequently, when emotions are not appropriately expressed, they bounce back into somatic symptoms.

The main sign of FNSD is having difficulty expressing and validating their thoughts and emotions. Females are more emotional than males (Ward & King, 2018a). Another study showed that while watching sentimental videos, men experience more intense emotions than women, but females express more emotions than men (Deng et al., 2016). It means that men usually lack expressing emotions.

Many societies and dysfunctional interpersonal relations do not allow people to express their desires freely, so defenses like repression, reaction formation, and displacement acceptably convert cognition and emotion into physical symptoms. These acceptable ways /symptoms can be adaptive and maladaptive. All these processes happen unconsciously and show in mental and physical symptoms. For example, a person's unexpressive anger and rebellious feelings toward their controlling parents can cause punishment if they express them freely, so various defenses (repression, somatization, and displacement) were used and converted these feelings into physical symptoms like blindness and a lump in the throat.

In short, results in this study supports the theoretical framework of biopsychosocial narrative of gender which explains that the both males and females are different biologically, psychologically and socially due to their gender roles. Finding in this study claims that they both are different psychologically in two domains of paranormal beliefs and maladaptive emotional schemas.

## Conclusion

*It is concluded that females are more superstitious than males, believes in black magic, invalidates their emotions, cannot understand their emotions and blame themselves and others. On the other hand, males cannot express emotions freely as compared to females. But both genders share certain paranormal beliefs (religious beliefs, spiritualism, psi, precognition and extra-life form) and emotional schemas (incomprehension, guilt, devaluation, duration, rumination, loss of control, numbness, overly rational, non-acceptance and low consensus) together.*



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