

# A Study Of Family Environment And General Health Among Pain Disorder And Conversion Disorders' Caregivers

Mr. Prateek Nagpal<sup>1</sup>, DR. Sanjay Ghosh<sup>2</sup>

<sup>1</sup>Research Scholar Department of Psychology School of Social Science Lovely Professional University,  
[prateek908@outlook.com](mailto:prateek908@outlook.com)

<sup>2</sup>Assistant Professor Department of Psychology School of Social Science Lovely Professional University,  
[sanjay.26173@lpu.co.in](mailto:sanjay.26173@lpu.co.in)

## Abstract

This study was based on family environment and general health among pain disorder and conversion disorders' caregivers. Males and females have been taken to assess the family environment and general health. The subjects were 15 caregivers with pain disorder and 15 caregivers with conversion disorder from Ludhiana. To measure family environment the Family Environment Scale (F.E.S.) by Sanjay Vohra (1998) and a general health questionnaire was used for measuring the current mental health status of the respondent subjects. Results revealed that pain disorder caregivers have a better family environment in relation to conversion disorder caregivers. The present study's conclusion shows that, as it related to caregiving, females had a major impact on self-esteem and a more negative impact on their daily activity routine, poor health, family support, and poor family environment, than males.

## Introduction

From the age of adolescence to older, family members provide unpaid assistance and support to people with disabilities or illnesses, old age, and childhood who live in their family. Research shows that most caregivers are not professionally trained for their role and provide care with little or no support (Pitsenberger, 2006; Kyei-Arthur, 2013; Alliance, 2006). Approximately one-third of caregivers continue to provide intense care to others while suffering from poor health themselves (Navaie-Waliser et. al., 2002). Studies have shown that an important factor in a caregiver's decision to place an impaired relative in a long-term care facility is the family caregiver's physical health (Buhr et. al., 2006; Wehilatch et. al., 1997; Whitlatch et. al., 1999; Lieberman, & Kramer, 1991).

Studies based on Caregivers of patients with long-lasting illnesses represent diseases such as Cancer (Goldstein, et. al., 2004; Grunfeld, 2004), Stroke (Morimoto, Schreiner, & Asano, 2003), Traumatic Injury (Marsh, 1998), Sclerosis (Chio, et. al., 2005), HIV/AIDS (Basavaraj, K. H., Navya, M. A., & Rashmi, R. 2010; Surur, et. al., 2017), Coronary Heart disease (Molaie, 2019; Thompson, & Yu,

2003), Asthma, arthritis, diabetes, heart disease (Sharma, Chakrabarti, & Grover, 2016; Vishwakarma, 2011). These and many such studies suggest the excess representation of patients with the physical disorder as the sample in research on chronic illness. However, there seems to be an emptiness concerning the sample of mentally ill patients. Furthermore, when the caregiver of the patient with a long-lasting illness is referred, the same trend of less focus on the caregiver of the mentally ill patient is evident. Although a meaningful trend appears to show high anxiety, depression and low quality of life. (Kate, et. al., 2013), studies also showed signs of negative feelings such as anger, guilt feeling, fear, hopelessness, sadness, and negative feelings and attitudes toward the patient (Caqueo-Urizar, et. al., 2012; Durmaz, & Okanlı, 2014), as well as this disappointment with their health and poor QOL (Yang, et. al., 2012).

## Impact on Caregiver's efficiency

According to Dalui, Guha, De, Chakraborty & Chakraborty (2014), the caregivers may suffer from reduced efficiency at home and in the workplace, thus losing wages. This conjoined

with the treatment for patients diagnosed with severe mental illness affects the caregivers' financial condition. Caregivers are also prone to suffering social consequences including disturbed social networks, stigma and intolerance, which reveals them to high levels of depression, stress and anxiety (Yıkılkan, Aypak, & Görpelioglu, 2014; Wong, et. al., 2012; Carroll, 2008). These studies also show poor psychological well-being and Quality of Life of the caregivers during caregiving. However, the truth persists that there is a lack of empirical research on the caregivers of people with mental illness.

### **Family caregivers themselves at risk**

An adequate body of research suggests that family members who care for individuals with chronic or disabling conditions are themselves at risk. Emotional, mental and physical health problems arise from complex care-taking situations and the stress of caring for vulnerable or disabled relatives. Today, medical advances, reduced hospital stays, limited vacation planning, and the expansion of home care technology have increased care responsibilities as well as increased costs on families. Those who are being asked to bear the burden of greater care for a longer period (Assessment, 2006; Levine, 2000). These burdens and health risks may hinder caregivers' ability to provide care. High health care can cause costs and affect the routine life of both the caregiver and their family members.

### **Caregivers' Health**

The high rate of depressive symptoms and mental health problems among caregivers, complicated by the physical stress of caring for someone who cannot perform daily life activities (ADLs) puts many caregivers at serious risk of poor physical health outcomes. The impact of providing care can increase health care needs for the caregiver. Approximately one in ten caregivers report that their physical health has deteriorated due to caregiving (Etxeberria et. al., 2010).

Caregivers tend to have lower subjective well-being and physical health levels than non-caregivers (Pinquart, & Sörensen, 2003; Irfan et. al., 2009). In 2005, caregivers reported fair or poor health status, one or more chronic conditions, or a disability, compared with non-caregivers (Ho et. al., 2005). Caregivers also reported chronic conditions in their physical health such as including heart attack/heart disease, cancer, diabetes and arthritis at nearly

twice in comparison with non-caregivers. Caregivers feel pain from increased rates of physical complaints (including acid reflux, headaches, and pain/aching), (Evercare, 2006) increased tendencies to develop severe illness, (Shaw et. al., 1997) and have excessive levels of obesity and bodily pain (Evercare, 2006; Shaw et. al., 1997; Barrow, & Harrison, 2005).

Studies show that caregivers' immune response is reduced, leading to repeated infections and an increased risk of cancer (Kiecolt-Glaser et. al., 1991; Kiecolt-Glaser et. al., 1996; Glaser, & Kiecolt-Glaser, 1997). For example, caregivers have a 23% higher level of stress hormones and a 15% lower level of antibody responses (Vitaliano, Zhang, & Scanlan, 2003). Caregivers also suffer from slower wound healing (Kiecolt-Glaser, et. al., 1995). Ten per cent of primary caregivers' report that they are physically stressed (Herbell, & Zauszniewski, 2018). Caregivers' exhibit exaggerated cardiovascular responses to stressful conditions which put them at greater risk for the development of cardiovascular syndromes such as high blood pressure or heart disease (King, Oka, & Young, 1994; Shaw, et. al., 1999). Women providing care to an ill/disabled spouse are more likely to report a personal history of high blood pressure, diabetes and higher levels of cholesterol (Lee, et. al., 2003). Caregivers are less likely to occupy anticipatory health behaviours (Schulz, et. al., 1997). Caregivers' self-care suffers because they lack the time and energy to prepare proper meals or to exercise. According to Tanner Sanford, et. al., 2005, Caregivers in rural areas is at a greater disadvantage in having their own medical needs met due to difficulty getting to the hospital and doctor.

### **Family Caregiver's Psychological Health**

Providing care harmful affects the psychological strength of the family caregiver. Abnormal levels of stress, anxiety, depression, and other psychological health effects are common among family members. Studies consistently report higher levels of depressive symptoms and mental health problems among caregivers (Mark, Lambert, & Choi, 2002; Pinquart, & Sorensen, 2003). The caregiver's functional status declines as both caregiver depression and perceived burden increase (Grunfeld, 2004). Even after the patient is placed in a nursing home, the depression and anxiety disorders found in caregivers persist or get worse. When caregivers institutionalize

their relatives, they report depressive symptoms and anxiety as being as high as when there was in-home care (Schulz, et. al., 2004). Depressed caregivers are more likely to have coexisting or comorbid anxiety disorders, substance abuse or dependence, and chronic disease. Depression is the most common condition or cause associated with suicide attempts (Spector, & Tampi, (2005). During caregiving, sometimes caregivers face the problem of feeling a loss of self-identity, lower levels of self-esteem, constant worry, or feelings of uncertainty. Caregivers have a smaller amount of self-acceptance and feel less effective and less in control of their lives than non-caregivers (Marks, Lambert, & Choi, 2002; Pinquart, & Sörensen, 2003). More than one-fifth (22%) of caregivers are fatigued at the time when they go to bed at night, and most of the caregivers feel they cannot handle all their caregiving responsibilities (Center on Aging Society, 2005).

Caregivers who suffer from prolonged stress may be at greater risk for the cognitive decline including a loss in short-term memory, attention and verbal IQ (Vitaliano, 2005). Research shows that female caregivers perform worse than male caregivers than their male counterparts, reporting higher levels of depressive and anxiety symptoms and lower levels of subjective well-being, life satisfaction, and physical health (Pinquart, M. & Sorensen, S. 2006). As a reaction to increased stress, caregivers are shown to have added alcohol and other substances used in their habits. Several studies have shown that caregivers use prescription and psychotropic drugs. Family caregivers are at higher risk for greater levels of hostility (Marks, Lambert, & Choi, 2002). Spousal caregivers who are at hazard of clinical depression and are caring for their companion with critical cognitive disability and/or physical care needs are more likely to engage in toxic activities toward their loved ones (Beach, et. al., 2005).

Families are recognized as primary caregivers when any family member is suffering from illness or disability. Previous studies' findings suggested that providing care could affect caregivers' mental and physical health, which may be disturbed in their caregivers' role. Caregivers complain about fatigue, sleep disturbances, disturbed digestive system, irritability, and the biggest issue they face is caregiver burden.

### **Role of Family Environment**

The family environment has played an important role in past abuse experiences related to any mental disorder such as PTSD, Conversion, etc. Family environment characteristics including inflexibility, poor cohesion, family dissatisfaction, and poor family communication have been usually associated with symptomatic abuse groups (Khan, Ahmad & Arshad, 2006).

Juarez and Ferrell (1996) noticed that caregivers of patients with chronic pain negotiate with their private lives and are excessive responsibilities for the role of caregiver. Caregivers decide whether to give analgesics or not, and it's they who decide to seek professional help. (Juarez & Ferrell). The undergoing of caring for a loved one with chronic pain brings significant tolerating together with feelings of leaving behind, anxiety, and doubts regarding the care provided (Juarez & Ferrell).

According to Sharma, et. al., (2016) & Verma, et. al., (2014), the poorer the QOL of the caregiver, the worse the psychological wellbeing. Further, it has been found that the caregiving role usually increases responsibilities for the caregivers' daily life activities and occupies their time, energy, and attention (Leow, & Chan, 2011). Taking the environment of the burdensome emotional outcomes of caregiving on the caregivers of chronic conditions suggests an over pervasive dominance of emotional components viz: Heightened depression, anxiety, fear, which also become a rationale for addressing emotional quality of life in the caregivers.

### **Aims and Objective**

1. To study the role of family environment among caregivers of pain disorder and conversion disorder.
2. To study the general health among caregivers of pain disorder and conversion disorder.
3. To study the gender difference among caregivers of pain disorder and conversion disorder.

### **Hypotheses**

1. There will be a significant difference between the family environment for the caregivers of pain disorder patients and conversion disorder patients. The conversion disorder patients' caregivers have a poor family

- environment as compared with pain disorder patients' caregivers. (H<sub>A</sub>)
2. There will be a high level of disturbance in health among caregivers of conversion disorder patients as compared with caregivers of pain disorders patients. (H<sub>A</sub>)
  3. Females caregivers have poor health as compared to male caregivers of conversion disorder or pain disorder. (H<sub>A</sub>)

### Material and Methods

The present study was carried out on patients with a diagnosis of pain disorder and conversion disorders based on DSM 5 criteria attending outdoor (OPD) and indoor (IPD) at Manas Hospital Ludhiana (Punjab) from December 2021 to January 2022.

**Sample:** 30 Caregivers were selected (15 caregivers were pain disorder patients and another 15 caregivers were conversion disorder patients) for the study. Various scales were applied to caregivers of pain disorders and conversion disorder patients to assess sociodemographic, clinical variables, and also assess the family environment and general health of the family.

### Inclusion criteria:

- Patients either men or women (all age groups)
- IPD and OPD clinic diagnosed as pain disorder or Conversion disorder according to DSM 5. Those willing to participate and understood the Questionnaire.

### Exclusion criteria:

- Patients with Epileptic disorder.
- Patients having an organic brain disorder.
- Patients with mental retardation.
- Those not willing to participate.

**Tools:** The following scales were used to assess sociodemographic and clinical variables and assess the caregivers' family environment and family burden of pain disorders and conversion disorder patients.

**Socio-demographic variables:** Personal details of the patients: name, age, sex, marital status, occupation, per capita income, educational status, religion, details of family type, a locality

in which the patients reside, and their address with a contact number.

**Family environment scale:** To measure family environment the Family Environment Scale (F.E.S.) by Sanjay Vohra (1998). To obtain the social, and interpersonal environmental characteristics of families and to assess the perception of the family environment is the aim of this Scale (F.E.S.). The original F.E.S. questionnaire consists of 98 statements. The statements in the inventory try to identify characteristics of an environment, which would exert or press toward all the important constituents of its main domain: Cohesion, Competitive Framework, Expressiveness, Independence, Moral Orientation, Organization, and Recreational Orientation. Each item of every sub-scale is on yes or no forms.

**Reliability of FES:** Split Half method was employed to find out the reliability of FES. But, the reliability coefficient of the entire scale was estimated by using the Spearman-Brown Prophecy formula and the Reliability Coefficient of the FES was 0.95.

**Validity of FES:** In this scale, Face validity and Content validity were tested.

**General Health Questionnaire (GHQ-12):** The General health questionnaire is a well-known efficient tool for measuring the current mental health status of the respondent subjects. It was originally developed as a 60-items instrument by Goldberg in the 1970s but a range of shortened versions of the questionnaire including the GHQ-32, the GHQ-28, the GHQ-20, and the GHQ-12 is presently available. The GHQ-12 scale is used worldwide in different segments of practice and research — clinical, epidemiological and psychological. The questionnaire consists of 12 items with each item measuring the severity of mental health problems in the 4 weeks preceding the study. Each item is assessed on a four-point Likert scale of 0 to 3 (less than usual, no more than usual, rather more than usual, much more than usual); and gives a total score of 36; with cut off total score of 3. The reliability coefficients of the questionnaire have ranged from 0.78 to 0.95 in various studies. The GHQ-12 is brief, simple, and easy to complete, and its application in research settings as a screening tool is well documented. There is evidence that the GHQ-12 is a consistent and reliable

instrument when used in general population samples. In the present study, the Hindi version of the GHQ-12 has been used.

### Procedure

At first, permission was taken from the authority of the hospital and the department for data collection. Then the researcher was allowed a particular date and caregivers were also informed about it. Likewise, on a particular date, the researcher collected the data.

At first, for the research, necessary instructions were given to the caregiver and consent was obtained from the caregivers. Secondly, demographic information was collected and Family Environment Scale was distributed. After completing the scale, 10 minutes of rest was taken.

Thirdly, GHQ 12 Scale was distributed after given the necessary instructions. Then, subjects were offered thanks for co-operation and subjects who had completed their questionnaire without leaving any statement unanswered were used for the study.

### Analysis of Data

Collected data were tabulated, classified, grouped and processed through the computer tables, graphs, etc. were prepared with the help of a computer. The software to be used is a statistical package for Social Sciences. The data will be analysed using mean, correlation and t-test.

### Results:

**Table 1. Presents the Family Environment scale's dimensions mean scores and standard deviation.**

S.no	Gender Male=1 Female=2	Cf		Co		Ex		In	
		conversio n	pain	conversio n	pain	conversion	pain	conversion	pain
1	1	7	5	6	8	8	7	1	4
2	1	5	3	6	6	5	5	4	6
3	1	4	3	5	7	5	4	6	3
4	1	4	8	7	8	3	6	8	1
5	1	3	2	3	4	7	3	6	1
6	1	7	5	9	3	5	7	4	1
7	1	3	2	6	7	6	3	6	7
8	1	5	3	5	6	5	5	4	2
9	2	4	7	5	7	7	4	6	1
10	2	7	5	6	8	4	7	1	1
11	2	7	5	6	4	5	4	4	1
12	2	3	2	3	7	7	3	6	1
13	2	5	3	5	6	6	5	4	3
14	2	7	5	9	6	5	7	9	6
15	2	7	5	6	8	8	2	1	4
<b>TOTAL</b>		<b>78</b>	<b>63</b>	<b>87</b>	<b>95</b>	<b>86</b>	<b>72</b>	<b>70</b>	<b>42</b>
<b>MEAN</b>		<b>5.20</b>	<b>4.20</b>	<b>5.80</b>	<b>6.33</b>	<b>5.73</b>	<b>4.80</b>	<b>4.67</b>	<b>2.80</b>
<b>S.D</b>		<b>1.66</b>	<b>1.82</b>	<b>1.70</b>	<b>1.59</b>	<b>1.44</b>	<b>1.70</b>	<b>2.41</b>	<b>2.14</b>

S.no	Gender Male=1 Female=2	Mo		Or		Ro		Vi	
		conversion	pain	conversion	pain	conversion	pain	conversion	pain
1	1	4	4	8	8	9	9	9	9
2	1	4	6	6	6	5	5	6	5
3	1	8	6	8	4	6	4	7	7
4	1	8	5	9	3	8	6	9	8

5	1	8	7	3	8	6	4	5	4
6	1	4	3	6	2	5	7	7	5
7	1	8	9	3	6	6	4	5	11
8	1	4	6	6	2	5	5	6	5
9	2	8	5	8	4	6	4	7	7
10	2	4	5	8	7	9	7	8	8
11	2	4	6	6	6	5	4	7	4
12	2	8	6	3	5	6	4	5	7
13	2	5	3	6	6	5	5	6	5
14	2	6	5	6	4	5	7	7	5
15	2	4	9	8	5	9	3	9	8
<b>TOTAL</b>		<b>87</b>	<b>85</b>	<b>94</b>	<b>76</b>	<b>95</b>	<b>78</b>	<b>103</b>	<b>98</b>
<b>MEAN</b>		<b>5.80</b>	<b>5.67</b>	<b>6.27</b>	<b>5.07</b>	<b>6.33</b>	<b>5.20</b>	<b>6.87</b>	<b>6.53</b>
<b>S.D</b>		<b>1.93</b>	<b>1.76</b>	<b>1.98</b>	<b>1.91</b>	<b>1.59</b>	<b>1.66</b>	<b>1.41</b>	<b>2.03</b>

**Table. 2. FES COMPETITIVE FRAMEWORK (Cf) t-test CAREGIVERS OF PAIN AND CONVERSION DISORDER**

Particulars	Mean	S.D.	t. value	P. Value (0.05)	Remark
Male subjects score	4.31	1.82	0.21	0.05	Not Significant
Female subjects score	5.14	1.70			

**Table. 3 . FES COHESION (Co) t-test CAREGIVERS OF PAIN AND CONVERSION DISORDER**

Particulars	Mean	S.D.	t. value	P. Value (0.05)	Remark
Male subjects score	6.00	1.71	0.82	0.05	Not Significant
Female subjects score	6.14	1.61			

**Table. 4. FES EXPRESSIVENESS (Ex) t-test CAREGIVERS OF CONVERSION DISORDER**

Particulars	Mean	S.D.	t. value	P.Value (0.05)	Remark
Male subjects score	5.25	1.53	0.95	0.05	Not Significant
Female subjects score	5.29	1.77			

**Table. 5. FES INDEPENDENCE (In) t-test CAREGIVERS OF CONVERSION DISORDER**

Particulars	Mean	S.D.	t. value	P.Value (0.05)	Remark
Male subjects score	4.00	2.34	0.53	0.05	Not Significant
Female subjects score	3.43	2.59			

**Table. 6. FES MORAL ORIENTATION (Mo) t-test CAREGIVERS OF CONVERSION DISORDER**

Particulars	Mean	S.D.	t. value	P. Value (0.05)	Remark
Male subjects score	5.88	1.93	0.65	0.05	Not Significant
Female subjects	5.57	1.74			

score					
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**Table. 7. FES ORGANIZATION (Or) t-test CAREGIVERS OF CONVERSION DISORDER**

Particulars	Mean	S.D.	t. value	P. Value (0.05)	Remark
Male subjects score	5.50	2.37	0.63	0.05	Not Significant
Female subjects score	5.86	1.56			

**Table. 8. FES RECREATIONAL ORIENTATION (Ro) t-test CAREGIVERS OF CONVERSION DISORDER**

Particulars	Mean	S.D.	t. value	P. Value (0.05)	Remark
Male subjects score	5.88	1.63	0.72	0.05	Not Significant
Female subjects score	5.64	1.82			

**Table. 9. GHQ PAIN AND CONVERSION DISORDER**

S.no	Gender	Pain	Conversion
1	1	8	6
2	1	9	5
3	1	7	7
4	1	8	6
5	1	8	6
6	1	7	4
7	1	6	7
8	1	5	8
9	2	4	7
10	2	8	9
11	2	9	9
12	2	7	6
13	2	9	4
14	2	8	6
15	2	11	8
<b>TOTAL</b>		<b>114</b>	<b>98</b>
<b>MEAN</b>		<b>7.60</b>	<b>6.53</b>
<b>S.D</b>		<b>1.72</b>	<b>1.55</b>

**Table. 10. GHQ t-test CAREGIVER OF PAIN DISORDER AND CONVERSION DISORDER**

Particulars	Mean	S.D.	t. value	P. Value (0.05)	Remark
Male subjects score	6.69	1.35	0.21	0.05	Not Significant
Female subjects score	6.56	3.16			

**Discussion**

The result indicates that balance in competitive framework of FES among the caregivers (mean=4.20, S.D.=1.82) of the Pain disorder

and in conversion disorders' caregivers (mean=5.20, S.D.=1.66) indicates that caregivers of conversion disorder have better competitive framework and also shows more

stability. As per the male score of conversion disorder caregivers shows disturbance in competitive framework (mean=4.31, S.D=1.82) and females' caregivers (mean=5.14, S.D=1.70) of pain disorder and conversion disorder show better performance in competitive framework. According to the statistical analysis for gender difference t test was conducted, ( $P=0.28>0.05$ ) which indicates that gender difference is not statistically significant. This may be due to the chance factor.

The caregivers of conversion disorder give importance to the success one achieves at work and other areas of life. While a comparatively low average score for caregivers of pain disorder suggests that they are low on competitiveness and their need for achievement is also low. On the other hand, different sincere and deep-rooted support services for the family members also contributed to less conflict in the family to work domain. This finding may be due to education, family coordination, having rational thinking. Therefore, the expression of the result is very apt and justified in this regard. The above finding is very much in line with a previous research study Dalui, Guha, De, Chakraborty & Chakraborty (2014), the caregivers may suffer from reduced efficiency at home and in the workplace, thus losing wages. As per the gender difference the previous finding is much in same with a previous researches many studies that found no differences between the sexes in competitive propensities (Ferguson & Schmitt, 1988; Grant & Sermat, 1969; Horai & Tedeschi, 1975; Watson & Hoffman, 1996).

In the second variable of FES is Co score the mean=6.33, standard deviation=1.59 among pain disorders' caregivers and in conversion disorders' caregivers mean=5.80, standard deviation=1.70. This indicates that caregivers of pain disorder has better family bonding in Cohesion dimension and less family bonding in conversion disorders' caregivers. As regards to gender difference, female caregivers (mean=6.14, S.D=1.61) are good in family member and in male caregivers mean=6.00, S.D=1.71) are slightly less in the comparison with female caregivers. As per statistical analysis in gender difference ( $p=0.2>0.05$ ) which is statistically not significant. This may be due to the chance factor.

Family environment characteristics including inflexibility, poor cohesion, family dissatisfaction, and poor family communication have been usually associated with symptomatic

abuse groups (Khan, Ahmad & Arshad, 2006). As per the gender difference the previous finding is much in same with a previous researches many studies that found no differences between the sexes in competitive propensities (Ferguson & Schmitt, 1988). This may be due to the nature and qualitative orientation of the family. Therefore, the expression of the result is very apt and justified in this regard. The result is inconsistent with some previous studies revealed that caregivers have lower levels of cohesion and adaptability (Gau et. al. 2012; Higgins, Bailey, & Pearce 2005; Niesche, & Haase, 2012; Lei, & Kantor, 2020). A study by Riffin et. al., 2017, showed that cohesion and conflict were significantly higher in the case of women. They also found that Recreational orientation and Moral orientation were significantly higher in females as compared with males. As a reaction to increased stress, caregivers are shown to have added alcohol and other substances used in their habits.

In the Expressiveness, the results indicate that in between caregivers of pain disorder mean=4.80 standard deviation 1.70 and in between caregivers of conversion disorder mean was 5.73 and standard deviation was 1.44. This indicates the balanced ability to communicate emotional states through non-verbal movements. According to gender difference in both the caregivers, females' caregivers mean score was 5.29 which means female caregivers are better in expressiveness, on the other hand males' caregivers mean score was 5.25 that means males are slightly less expressive in nonverbal communication states. In the t-test of expressiveness of both the caregivers ( $p=0.95>0.05$ ) have been not found statistically significance. This may be due to chance factor. As per the same finding by Grant & Sermat 1969, study that found no differences between the sexes. This indicates that subjects feel more comfortable with their family members in expressiveness, which gives them motivation towards better accomplishment in their work environment.

A controversial finding was seen in the previous studies also showed signs of negative feelings such as anger, guilt feeling, fear, hopelessness, sadness, and negative feelings and attitudes toward the patient (Caqueo-Urizar, et. al., 2012; Durmaz, & Okanlı, 2014) Independence dimension of the caregivers with pain disorder's mean score was 2.80 and standard deviation was 2.14 which indicates the high dependence in caregivers, on the other



hand caregivers of conversion disorder's mean score was 4.67, standard deviation was 2.41 and this indicates the more independence in caregivers. A gender difference t-test in this dimension in between both the caregivers ( $p=0.53>0.05$ ) has been not found statistically significance, and may be due to by chance.

Similar finding was found by Horai & Tedeschi (1975) revealed that no gender differences was found. As per independence dimension has been stressed that their less independency ultimately feel more psychologically healthy in dealing with day to day stress in family and work situations.

Another dimension of FES was Moral in which caregivers of conversion disorder mean was 5.80, standard deviation was 1.93 which indicates goods in truthfulness, happiness and peace in family members but in caregivers of pain disorder mean was 5.67, standard deviation was 1.76 this indicates that slightly less in truthfulness, happiness and peace in family members. For gender difference t test was done in which mean score of both the caregivers' male was 5.88. standard deviation was 1.94 and in females' caregivers of the both disorder mean score was 5.57, standard deviation was 1.74 as of t test ( $p=0.65>0.05$ ) indicates no statistical significance. This may be due to by chance factor.

A study by Riffin et. al., 2017, found that Recreational orientation and Moral orientation were significantly higher in females as compared with males. As a reaction to increased stress, caregivers are shown to have added alcohol and other substances used in their habits. Similar finding was found by Watson and Hoffman 1996 in their study no differences between the sexes were found.

This may be due to the nature and qualitative orientation of the personnel. On the other hand, different sincere and deep-rooted support for the family members from the family also contributed to enhance the moral in the family to work productively. Therefore, the expression of the result is very apt and justified in this regard.

Organisation dimension of family environment scale indicates the caregivers with pain disorders' mean was 5.07, standard deviation was 1.91 and caregivers with conversion disorders' mean was 6.27, standard deviation was 1.98. This indicates that caregivers of conversion disorder have better organisation skills as of caregivers with pain disorders. Gender difference in organisation dimension indicate  $p=0.63>0.05$  in both the caregivers

which has been not found statistically significance. This is due to chance factor.

The respondents scored average in organisation dimension which shows to less conflict and balanced organisation in family environment, which in turn indicates that subjects feel more comfortable with their family members. This conjoined with the treatment for patients diagnosed with severe mental illness affects the caregivers' financial condition. Caregivers are also prone to suffering social consequences including disturbed social networks, stigma and intolerance, which reveals them to high levels of depression, stress and anxiety (Yıkılkan, Aypak, & Görpelioğlu, 2014; Wong, et. al., 2012; Carroll, 2008).

As per the above finding, both the caregivers of pain disorder and conversion disorder have an average family environment in most of the dimensions except independence, caregivers of pain disorder have low level in the independence dimension as compared with caregivers of conversion disorder. In a study by Verma et. al., 2017, found that Cohesion and Expressiveness in the caregivers of conversion disorder were below average and conflict was found to be above average. In short, they found that the concern of the family about social, intellectual, cultural activities, festival activities and organization in the family in terms of financial planning and responsibilities were significantly related to symptoms of conversion disorder patients as well as their caregivers. On the other hand according to one of the supportive study by Monin JK, Schulz R. (2009), multiplied responsibility for the suffering of a loved one may place caregivers at heightened risk of adverse outcomes, above and beyond the physical demands of care provision which indicates the low level of independency. One more supportive study by Juarez and Ferrell (1996) also noticed that caregivers of patients with chronic pain negotiate with their private lives and are excessive responsibilities for the role of caregiver, again shows the low level of independency. The undergoing of caring for a loved one with chronic pain brings significant tolerating together with feelings of leaving behind, anxiety, and doubts regarding the care provided (Juarez & Ferrell).

In GHQ, better health was found in pain disorders' caregivers (mean=7.60, standard deviation=1.72) and low health was found in conversion disorders' caregivers (mean=6.53, standard deviation=1.55). As on gender differences, the mean score of male caregivers in GHQ was 6.69 & for female caregivers was

6.56 with a standard deviation of 1.35 & 3.16 respectively. The t-value ( $p=0.21>0.05$ ) has not been found significant. Hence the difference in mean values may be due to chance factor.

A controversial finding was seen in gender difference, many previous researches which indicates that female caregivers perform worse than their male counterparts, reporting higher levels of depressive and anxiety symptoms and lower levels of subjective well-being, life satisfaction, and physical health (Miller, & Cafasso, 1992; Yee, & Schulz, 2000; Pinquart, M. & Sorensen, S. 2006).

In this context, a study by Washington et. al. 2015, found poor health in females caregivers as compared to male caregivers. Several studies have shown that caregivers use prescription and psychotropic drugs. Family caregivers are at higher risk for greater levels of hostility (Marks, Lambert, & Choi, 2002). Spousal caregivers who are at hazard of clinical depression and are caring for their companion with critical cognitive disability and/or physical care needs are more likely to engage in toxic activities toward their loved ones (Beach, et. al., 2005). The controversial finding in a study by Change and White-Means (1991), women reported significantly more physical stress (women,  $M = 3.01$ ; men,  $M = 3.45$ ) and emotional stress (women,  $M = 3.51$ ; men,  $M = 2.12$ ) than men. A higher percentage of women than men reported being dissatisfied with life in general (women, 39%, men, 36%) and with the arrangements for the care of the recipient (women, 15%, men, 12%). A higher percentage of women than men reported that caregiving interfered with sleep, (women, 69%, men, 59%) limited time for family (women, 59%; men, 43%), and seriously limited time (women, 46%; men, 40%). In addition, study by Beach and his colleagues (2000) suggests that there may be gender differences in the positive effects of caregiving that favour women. Specifically, these researchers found that among women in high-quality relationships, helping a disabled spouse was related to reduced anxiety and depression.

### Conclusion

The purpose of this research study was to shed light on family environment scale and general health among caregivers of pain disorder and conversion disorder. Findings of the study reveal that family environment scales' all dimension were average among the caregivers of pain disorder and conversion disorder.

The respondents showed average strength in family environment scale and general health. The most striking finding was that the conversion disorders' caregivers have better family environment as comparative with pain disorders' caregivers and in GHQ, pain disorders' caregivers have better health as compare with conversion disorder. The t-tests related to gender difference have been found to be non-significant, and hence the differences may be attributed to a chance factor. Therefore, the alternate hypothesis has been rejected and the null hypothesis has been accepted in this case.

From the study, it was revealed that both the caregivers has greater mental strength and effective adjustment with family environment, which in turn expressed better health and family environment.

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