Resilience and Coping Strategies in the Patients with Conversion Disorder and General Medical Conditions: A Comparative Study

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Abstract

Objective: The aim of the present research was to investigate resilience and coping strategies in the patients with conversion disorder and general medical conditions and to compare the findings of both the groups. Method: The research was conducted in five teaching hospitals of Lahore, Pakistan. The total sample was 100. Both men and women with ages 18 years and above were included in the study. Cross sectional research design was used. The assessment tools used were State- Trait Resilience Inventory (STRI), and Coping Strategies Questionnaire (CSQ). Results: The results of the independent sample t-test indicated that the trait resilience of the patients with general medical conditions was higher than that of the patients with conversion disorder. Moreover, among all the types of coping strategies, the patients with conversion disorder were using avoidance-focused coping strategies more than the patients with general medical conditions. Furthermore, the patients with general medical conditions were using active-focused coping strategies more than the patients with conversion disorder. Conclusion: The findings of the research are interesting as they have implications in devising therapeutic interventions for the patients with conversion disorder.

Keywords: Conversion Disorder, General Medical Conditions, Cross-Sectional Design, State-Trait Resilience, Avoidance-Focused Coping

Introduction

Conversion disorder, which was earlier recorded in the history as hysteria or hysterical conversion, is the condition in which the psychological stress is manifested in physical symptoms. DSM-IV-TR¹ defines conversion disorder as a condition with one or more symptoms or deficits affecting voluntary, motor or sensory functions that suggest a neurological or other general medical condition. Depending on the nature of symptoms and the complaints with which the patients present, conversion disorder can be divided into four subtypes i.e. conversion disorder with motor symptoms or deficits, conversion disorder with sensory symptoms or deficits, conversion disorder with seizures or convulsions and conversion disorder with mixed presentation. Regardless of the type
and symptoms of conversion disorder, psychological factors are judged to be associated with the symptoms of conversion disorder and are not associated with any physical cause. The etiology of conversion disorder in the ancient times was considered to have biological origins. The ancient Greeks described that this condition was caused due to the uterus actually wandering in the female body and named it Hysteria which means wandering womb. Similarly, according to Hippocrates, the unconsciousness, paralysis or the physical symptoms were caused due to the movement or seizure of female reproductive parts. Afterwards, with the advent and rise of Christianity in the 16th century, conversion disorder was thought to result from the devil possession and witchcraft. After the advancement in understanding of nervous system, the focus of the theorists shifted from ancient gynecological and demonological theories to the modern theories of biological origin. Later, Charcot regarded hysteria as a nervous system dysfunction. By the end of 19th century, the term dissociation was coined by Janet and it was considered that conversion symptoms were caused due to the breakdown and disruption of normal mental processes into ideas, acts, sensory functions and motor functions. Twin studies conducted in the recent past to find out the causes of conversion disorder have shown that biological, genetic or hereditary factors did not contribute to the development of conversion symptoms which indicates that psychological factors or stressors mainly are associated with the onset of the disorder.

The most influential etiological formulation was put forward by Freud. According to him, conversion was a condition that resulted when the unacceptable mental contents, wishes and desires of a person were transformed into physical symptoms. Repression, according to Freud and Breuer, was the phenomenon behind the development of conversion disorder. It meant that conversion disorder resulted when the emotionally stressful event was repressed in the unconscious of the person.

Besides these historical explanations, there are some other comparatively recent schools of thought that need to be discussed. Among them, behavioral perspective was proposed by Ulman and Krasner, according to which, the symptoms are produced as a result of role enactments that have been learnt by the environment. Moreover, another research emphasized that the symptoms of conversion disorder are shaped by environment through operant conditioning and the physical symptoms of conversion disorder function as maladaptive operant behaviors which act on the environment for gains or rewards. Conversion disorder is thus strengthened by the effect of such behaviors.

According to object-relations perspective the cause of conversion disorder is the unconscious conflict between the person’s inner self and the significant figures, which develop in early childhood, and manifest in the present situations by the production of bodily symptoms. These symptoms reduce the anxiety and help the patient to receive rewards or gains. Last but not the least, conversion disorder can also be explained by socio-cultural theories which assert that conversion disorder is common in those cultures and societies where direct expression of emotions is not allowed due to gender roles, religious beliefs or other socio-cultural factors. In such cases, conversion disorder helps the patients to communicate the forbidden ideas and feeling through non-verbal communication or physical symptoms. Recent researches on
Conversion disorder acknowledge the fact that this condition has declined in the West and currently, it is only prevalent in developing countries such as Libya, Turkey, Egypt and India\(^{11-14}\). Moreover, studies have also shown that conversion disorder is more prevalent in rural areas and in people with low socio-economic status\(^5\). Some modern theories are of the view that some other causes of conversion disorder include external stressors, socio-familial and cultural factors\(^\text{15}\).

Researches conducted in Pakistan indicate that conversion disorder is one of the most prevalent psychiatric diagnoses representing 12.4\% of the admissions in the inpatient psychiatric unit\(^\text{16}\). Another study reported it as the 5\(^{\text{th}}\) most common psychiatric disorder in Pakistan\(^\text{17}\). The reason for such a high prevalence is that in countries like Pakistan, people are still bound to the conventional gender roles where females are not allowed to freely express themselves. According to Aamir, Farooq & Jahangir\(^\text{18}\), important characteristics of Pakistani people who experience conversion disorder were being female, low socio-economic status and low educational level. Moreover, societies like Pakistani society have oppressive rules and values related to sexuality which might also result in such a high frequency of conversion disorder\(^\text{19}\). According to Huang et al.\(^\text{20}\), the literature available regarding the causes of conversion disorder suggest that factors like being female, psychological distress, conflicts in the family, trauma and socioeconomic factors play a very important role in the etiology of conversion disorder.

On account of the prior literature, one can establish a strong association between the stressful life events and conversion disorder for example, a research in this area found that the patients with conversion disorder were more stressed, emotionally weak and had low resilience\(^\text{21}\).

Resilience is a process consisting of positive and healthy adaptation within the context of adversity\(^\text{22}\). Resilience is thought to play a very important role in the health and well-being of the individual\(^\text{23}\). Some authors\(^\text{24}\) stated that research in this area helps guide about the intervention and treatment of pathologies related to stress. According to Hiew, Mori, Shimizu & Tominaga\(^\text{25}\), resilience in adults can be differentiated on whether the resilience characteristics are current dominant states at the present time or have been there since childhood. On the basis of this discrimination, two types of resilience were proposed namely state resilience and trait resilience. Moreover, both the state and trait resilience had significant correlation with three sources of resilience that is, “I am” factor based on personal characteristics, “I can” factor, based on interpersonal competencies and “I have” factor concerned with building social relationships. The first two factors were concerned with the person himself (intra-) and the next two factors involve society and other people (inter). Furthermore, resilience was thought to be enhanced by coping, which is defined by Folkman and Lazarus\(^\text{26}\) as any cognitive or behavioral effort to deal with the stressful demands of a person’s life which are thought to be exceeding a person’s resource. They categorized the construct of coping into problem-focused coping and emotion-focused coping. Problem-focused coping involves reducing stress by problem solving whereas; emotion-focused coping undertakes emotional distress associated with the particular situation. The coping strategies employing problem-focused coping are active coping, planning or religious coping. Moreover, avoidance-focused coping strategies are an example of emotion-focused coping\(^\text{27}\).
The relationship of resilience and coping in relation to mental health has been studied by the researchers\textsuperscript{28-30} and it was found that there was a positive association between problem-focused coping strategies and resilience and both promote mental health. On the other hand emotion-focused coping strategies were found to be negatively associated with resilience and were thought to cause psycho-pathology.

Based on the above mentioned literature, we proposed that the state resilience, inter-state resilience and intra-state resilience of the participants with general medical conditions will be higher than the participants with conversion disorder. Moreover, the trait resilience, inter-trait resilience and intra-trait resilience of the participants with general medical conditions will be higher than the participants with conversion disorder. It was also proposed that the participants with general medical conditions will be using active-practical coping strategies more than the participants with conversion disorder and the participants of conversion disorder will be using avoidance-focused coping strategies and active-distracting coping strategies more than the participants with general medical conditions.

Methods

Study Design
The research design used in the present study was cross-sectional design.

Participants
Non-probability purposive sampling was used to collect the data. The participants of the study were selected from two independent populations; that is the patients diagnosed with conversion disorder and those with general medical conditions. G-Power analysis was used to determine the sample size. By keeping the effect size medium \((d) = 0.5\), probability \((\alpha) = 0.1\), power of the study \((1-\beta) = 0.9\) and equal allocation ratio for both the groups, that is \((N2/N1)=1\), the sample size for both the groups was found to be 53 participants each. However, the total number of participants included in the present research had to be reduced to 100, 50 in each group, as the doctors in the Government hospitals went on strike and there were no patients in the outpatient units of the hospitals.

Inclusion Criteria
Both men and women with ages ranging from 18 years and above were included in the study. For conversion disorder, all the participants fulfilling the DSM-IV-TR diagnostic criteria for conversion disorder were included in the study regardless of their duration of illness. Patients, with all types of conversion disorder were included in the study and there was a wide range of symptoms. For example, sensory deficits like blindness, motor symptoms like paralysis, pseudo-seizures as well as mixed presentation were included. For general medical conditions, the patients with minor physical illnesses such as fever, cough, sore throat, headache, indigestion, minor aches & pains, diarrhea/constipation and infectious diseases were included in the study.

Exclusion Criteria
Any participant with co-morbid organic illness, psychiatric co-morbidity in which conversion disorder was secondary diagnosis, severe medical illnesses like cancer and HIV/AIDS and substance related disorder were excluded from the study.

Instruments

Demographic Questionnaire
A demographic questionnaire was devised to take demographic information of the participants.
**State Trait Resilience Inventory (STRI)**

State and trait resilience were measured using Urdu translated version of State Trait Resilience Inventory (STRI). It is a 35 items inventory developed by Hiew (2002) and translated in Urdu by Kauser and Jabeen (2009). STRI had two subscales that is State Resilience Scale (SRC) and Childhood Trait Resilience Scale (TRC). The State Resilience Scale (SRC) has 15 items and Trait Resilience scale (TRC) has 18 items of personality characteristics that depict resilience. Respondents rate themselves on a likert scale of 1 to 5 on each item. i.e. (from ‘strongly disagree’=1 to ‘strongly agree’=5). Moreover, the scale also measures inter-state resilience, intra-state resilience, inter-trait resilience and intra-trait resilience of the participants. The chronbach alpha coefficient of the state resilience scale for present study was .77, and that of trait resilience scale was.85. Moreover the α reliabilities of inter-state resilience and intra-state resilience were .55 and .72 and for inter-trait resilience and intra-trait resilience were .72 and .78 respectively.

**Coping Strategies Questionnaire (CSQ)**

Coping strategies of the participants were measured by Coping Strategies Questionnaire (CSQ). It is a 62 items scale developed by Kausar (1998) for Pakistani population to assess the coping strategies. The scale measures 4 categories of coping strategies that is; active- practical coping, active – distracting coping, avoidance focused coping and religious focused coping. The Coping Strategies Questionnaire (CSQ) is rated on a 5-point likert scale (‘does not apply’ =1 to ‘very much’ =5). The chronbach alpha reliabilities of the scale for present study was found to be 0.85. Moreover, the alpha reliabilities of the subscales were calculated and they were found to be 0.77, for active-practical coping, 0.55 for active-distracting coping, 0.71 for avoidance-focused coping and 0.81 for religion-focused coping subscales.

**Procedure**

Data for the study was collected from the inpatient and out-patient departments of five teaching hospitals of Lahore, Pakistan as conversion disorder is mostly reported in those hospitals. Mental health professional in the outpatient and inpatient psychiatry departments of Jinnah hospital, Sir Ganga Ram hospital, Lahore General hospital, Mayo hospital and Services hospital were contacted and were requested to refer the patients with the diagnosis of conversion disorder to be included in the study. Similarly, medical professionals in the inpatients and outpatient medical departments were also contacted and they were requested to refer the patients with minor physical illnesses to be included in the study as a comparative group. Before starting the main study, a pilot study was conducted to evaluate and assess the comprehension of the assessment tools. The initial 20 patients included in the pilot study were included in the main study as they did not point out any difficulty in the comprehension of the tools and hence no change was recommended. The patients who were referred were re-assessed on the DSM-IV-TR diagnostic criteria of conversion disorder to confirm the diagnosis. Moreover, mental state examination was done to rule out any psychiatric co-morbidity. A single administration took 20-25 minutes.

**Ethical Considerations**

Written informed consent was taken from all the participants after explaining the aims and objectives of the research. The participants were informed that they had the right to withdraw from the research. Moreover, no monetary benefits were offered.
Data Analyses
Data were analyzed using Statistical Package for Social Sciences, Version 19. Demographic variables were analyzed using descriptive analysis and the difference between the use of coping strategies and state and trait resilience between two groups was obtained by independent samples t-test.

Results

1. Descriptive Analyses
In the group with conversion disorder 46(92%) of the participants were women and 4(8%) were men. Likewise, 45(90%) participants in the group with the General Medical Conditions were women and 5(10%) were men. The mean age of the participants with conversion disorder was 24.4 years (SD=9) and 27.4 years (SD=9.6) for the participants with general medical conditions. Most of the participants in the group with conversion disorder were educated till grade 10. Their mean education was 9.9 years (SD=3.08). Similarly, the mean education of the participants with general medical conditions was 11.2 years (SD=2.8). Most of the participants in both the groups belonged to lower socio-economic status and the mean monthly income ranged from Rs 16,788.8 (SD=14314.8) to Rs 27,202 (SD=33,596). The demographic variables can be seen in Table 1.

Table 1. Descriptive analyses of Demographic variables (N=100)

<table>
<thead>
<tr>
<th>Variables</th>
<th>CD (n= 50)</th>
<th>GMC (n= 50)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f(%)</td>
<td>M</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>4(8)</td>
<td>-</td>
</tr>
<tr>
<td>Women</td>
<td>46(92)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>24.4</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Monthly Income in Rupees</td>
<td></td>
<td>16,788.8</td>
</tr>
</tbody>
</table>

Note. CD= Conversion Disorder (n=50), GMC=General Medical Conditions (n=50).

State-Trait Resilience
The Results in Table 2 indicate that the trait resilience of the participants with conversion disorder was lower 61.24(SD=10.27) than the participants with general medical conditions, 64.8(SD=9.33). Moreover, intra-trait resilience of the participants with general medical conditions was higher 7.12 (SD=1.07) than the participants with conversion disorder 6.54(SD=1.29). The two groups of participants did not have any significant difference in the other resilience scores. Moreover, there was no difference on the total resilience score of both the groups.

Coping Strategies
The results of the analysis indicated that the participants with general medical conditions were using active-practical coping strategies more 6.3(SD=0.82) than the participants with conversion disorder 5.97 (SD=0.89). The results also revealed that the participants with conversion disorder used more avoidance-focused coping strategies 6.50 (SD=0.72) than the participants with
Moreover, there was no significant difference in the use of religious coping strategies between the participants with conversion disorder 6.57 (SD=1.00), and the participants with general medical conditions 6.67 (SD=1.16). See Table 2.

Table 2. t-test showing the differences between Coping Strategies, State Resilience, Trait Resilience, Inter-State Resilience, Intra-State Resilience, Inter-Trait Resilience and Intra-Trait Resilience among the Participants with Conversion Disorder and those with General medical conditions (N=100)

<table>
<thead>
<tr>
<th>Variables</th>
<th>CD (n=50)</th>
<th>GMC (n=50)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>State Resilience</td>
<td>53.48</td>
<td>7.75</td>
<td>55.16</td>
</tr>
<tr>
<td>Trait Resilience</td>
<td>61.24*</td>
<td>10.2</td>
<td>64.88</td>
</tr>
<tr>
<td>Inter-State Resilience</td>
<td>6.96</td>
<td>1.18</td>
<td>7.00</td>
</tr>
<tr>
<td>Intra-State Resilience</td>
<td>7.24</td>
<td>1.17</td>
<td>7.59</td>
</tr>
<tr>
<td>Inter-Trait Resilience</td>
<td>7.13</td>
<td>1.14</td>
<td>7.31</td>
</tr>
<tr>
<td>Intra-Trait Resilience</td>
<td>6.54**</td>
<td>1.29</td>
<td>7.12</td>
</tr>
<tr>
<td>Total Resilience Scores</td>
<td>114.72</td>
<td>17.2</td>
<td>120.04</td>
</tr>
<tr>
<td>Active-Practical Coping Strategies</td>
<td>5.97*</td>
<td>0.89</td>
<td>6.3</td>
</tr>
<tr>
<td>Active-Distracting Coping Strategies</td>
<td>5.29</td>
<td>1.00</td>
<td>5.54</td>
</tr>
<tr>
<td>Avoidance-Focused Coping Strategies</td>
<td>6.50***</td>
<td>0.72</td>
<td>6.09</td>
</tr>
<tr>
<td>Religious-Focused Coping Strategies</td>
<td>6.57</td>
<td>1.00</td>
<td>6.76</td>
</tr>
<tr>
<td>Total coping scores</td>
<td>24.34</td>
<td>2.71</td>
<td>24.77</td>
</tr>
</tbody>
</table>

Note. CD= Conversion Disorder, GMC= General Medical Conditions, CI= Confidence Interval, LL= Lower Limit, UL= Upper Limit
Discussion

The results showed that there was no significant difference in the overall state resilience of the participant of both groups. State resilience scale is a measure of current resiliency of an individual. The present findings suggest that the participants with conversion disorder and those with general medical conditions had the same level of state resilience. The results also revealed that there was no difference between the inter-state and intra-state resilience of the participants. Contradictory to the prior literature which suggested that the people with negative emotional states and psychological problems are less resilient than those with the positive ones, the present research indicated that both the groups did not differ on these constructs of resilience. These contradictory results account for more research in this area to verify and substantiate the present findings.

Based on the characteristics and demographic features of the participants included in the study, it can be assumed that all the participants had low state or current resilience because of a number of factors; like personality traits, stressful life conditions, demographics (like women, low socio-economic status, life experiences, social support etc.), disease, unstable economic conditions, overall atmosphere of the country or repressive style of coping. Contrary to this, the trait resilience of the participants with general medical conditions was higher than the participants with conversion disorder. This finding was consistent with the previous literature which has established the relationship of resilience with personality traits. For example, Hiew et al. found that trait resilience usually developed in the late childhood and became the part of a person’s personality. Similarly, another research provided the evidence that trait resilience was associated with positive emotions and longevity, thus concluding that people with high trait resilience are less vulnerable to psycho-pathology and they can successfully face the adversities. The present findings are therefore consistent with the literature as the patients with conversion disorder had lower trait resilience as compared to the control group.

As previously discussed, psycho-pathology and vulnerability have been investigated in relation to mental health and such findings suggested a negative relationship of trait resilience with mental health. Another research also supports this notion that individuals with low trait resilience are more vulnerable to the psychological problems related to stress.

Further, the present finding can be attributed to the etiology of conversion disorder in which psychological distress and lack of problem-focused coping are considered to play a foremost role in the development of low trait resilience in the patients with conversion disorder. Moreover, psychosocial factors associated with conversion disorder, might be the reason, for example, Aamir et al. asserted that conversion disorder had been associated with some specific characteristics, like being female, low socio-economic status, psychological conflicts, personality disorders or depression. Moreover, it was found that there was no difference between the intertrait resilience in both the groups; however, the intra-trait resilience of the participants with general medical conditions was higher than those with conversion disorder. As mentioned earlier, the intra-trait resilience is concerned with the personal traits of an individual, so the results are consistent with the previous findings that personality traits like conscientiousness and extraversion are positively related to the mental health.
As far as the coping strategies are concerned, the results of the study showed that the participants with general medical conditions were employing the active-practical coping strategies more than the participants with conversion disorder. These findings are consistent with the available researches on stress, coping and the relationship of coping with psychological wellbeing. For example, a research conducted by Hatchett & Park\textsuperscript{38} found that problem-focused coping and optimism were correlated positively with each other and were associated with the better psychological outcomes. Furthermore, the results also signposted that the patients with conversion disorder were using avoidance focused coping strategies more than the patients with general medical condition. Avoidance focused coping or emotional avoidance is the push away or avoidance of one’s own emotions. The participants with conversion disorder mostly avoid or suppress their conflicts or stresses which are ultimately converted into physical symptoms\textsuperscript{39}. Abundant literature has been available which supports that avoidance focused coping leads to the development of psychopathology and is associated with psychological stress and poor wellbeing\textsuperscript{40}. A research was conducted by Maqbool & Kausar\textsuperscript{41} in which the patients with conversion disorder were reported to use avoidance focused coping strategies and active-distracting coping strategies in order to cope with their stress. Moreover, another finding indicated that avoidance focused coping was one of the factors which predicted the maintenance and persistence of somatoform disorders\textsuperscript{42}.

Conclusion

The results of our study suggest that avoidance-focused coping strategies and low trait resilience seem to be important phenomena in the onset of conversion disorder. This research has important implications in devising therapeutic interventions for the patients with conversion disorder and their families. However, our study also had some limitations. The first shortcoming of the study was that the number of participants included in the research was limited due to the time bound nature of the study. In order to increase the statistical significance and generalizability of the research, the sample size should be increased for prospective researches. Moreover, the duration of illness as well as the type of conversion disorder was not known and the patients with variation in the duration of illness and with all types were included in the study. Future researches should take these factors into account as correlating the results with the types of conversion disorder may open future avenues for research in this area.

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