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Relationship of locus of control, learned helplessness and coping strategies among patients with chronic illness

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Abstract

This research focused on investigating how locus of control, learned helplessness, and coping strategies are related in patients dealing with chronic illness. A sample of 100 chronic patients was drawn using a stratified sampling technique, comprising 48 males and 52 females from Bahawal Vitoria Hospital, Bahawalpur. A cross-sectional survey method was employed, with data collected through interviews. Three validated questionnaires were also used: the Pettijohn Locus of Control Scale (1992), the Quinless & Nelson Learned Helplessness Scale (1988), and the Coping Strategies Inventory by Hamby, Grych, & Banyard (2013). The results of this study indicate a significant correlation among coping strategies, locus of control, and learned helplessness. The literature review supports the findings related to the impact of chronic illness on these psychological constructs. The results are discussed in terms of gender differences, variance in factors, and the role of psychosocial support in managing chronic illness.

Keywords: Chronic illness; Learned helplessness; Coping strategies; Chronic Patients

1. Introduction

Chronic illness presents significant physical and emotional challenges, affecting not only patients' health but also their ability to cope with the long-term stressors associated with their condition.

The current study focuses on Locus of Control, a psychological factor that assesses whether people believe that what occurs to them in life is related to their actions and decisions or, in contrast, to external behaviors and choices (fate and luck). According to (Rotter 1966) individuals with an internal locus of control feel they have power over their outcomes, whereas those with an external locus of control perceive that their results are beyond their ability to influence. People with an internal locus of control tend to have strong motivation for success and are less influenced by external factors. Those with an external locus of control, on the flip hand, frequently look for external justifications for their shortcomings. We may also refer to internals as having self-control or self-determination (Decharms, 1972).

Individuals with internal locus of control may be psychologically ill and unstable. They may become neurotic, nervous, or depressed. It can be said that they require suitable surroundings that influence them to experience success. Individuals with an external locus of control may be gentle and relaxed, experiencing joyful lives (Hans, 2000). An internal locus of control involves events that are largely influenced by a person's enduring traits. It reflects the belief that individuals have personal control over situations, enabling them to influence outcomes.

In contrast, individuals with an external locus of control feel that their outcomes are determined by external factors beyond their influence (Landy & Contre, 2004; Martin, Thomas, Charles, Epitropaki & McNamara, 2005). The consequences of behavior are randomly administered and are thought to be controlled by outside forces (Connolly, 1980). They are also hesitant to modify behavior because they do not view it as a primary source for shifting reinforcements. Even in the

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presence of positive reinforcement, credit may not be taken personally but rather reflected on the fundamental nature of the task, luck, or the support supplied by any other powerful source (Hyatt and Prawitt, 2001).

Learned Helplessness is another variable that is explored in our study that denotes that learning interferes with the formation of associations between the escape response (i.e., moving to a safe zone) and shock termination. This learning then weakens the motivation to attempt to escape (Maier, Peterson, & Schwartz, 2000).

The learned helplessness theory was developed from the animal research of Seligman and Maier (1967). They suggested that the subject learned, through unavoidable shocks, that their responses had no impact on stopping the shock, which led to a decrease in the likelihood of responding during the shock. Maier (1980) explained that learned helplessness occurs when organisms, whether human or non-human, exposed to negative stimuli in one context, fail to escape from it in a different context where escape is possible. He also stated that the learned helplessness hypothesis is grounded in cognitive learning theory, that is subject learns that situational outcomes are independent of voluntary responses.

Abramson, Seligman, and Teasdale (1978) proposed an attribution framework to address the major theoretical controversies arising from the original learned helplessness theory that individuals either implicitly or explicitly engage in a causal search for why they are helpless. The trigger for the development of learned helplessness is the expectation that there is no connection between one's actions and the resulting outcomes. Abramson et al. suggested attribution made for present non-contingency resulted in learned helplessness. Nonetheless, the degree and duration of learned helplessness behaviors depend on how individuals interpret their experiences of helplessness.

This study aims to contribute to the current body of research by exploring how locus of control affects learned helplessness and coping strategies in individuals with chronic illnesses, highlighting the link between perceptions of control and psychological well-being. The number of individuals living with chronic health conditions has increased significantly over the past few decades, coinciding with notable changes in healthcare, diet, and technology in the United States. According to the Centers for Disease Control (CDC, 2012), more than 45% of U.S population, or roughly 133 million people, have at least one chronic condition, with 26% experiencing multiple chronic conditions.

The chronic illness can significantly affect work life balance and performance in addition to inhibiting social functioning. This has resulted in higher rates of anxiety and depression in patients who are diagnosed with such illnesses (Katon, Lin, & Kroenke, 2007). Maintaining role expectations, while simultaneously dealing with complex symptoms and treatments can understandably result in increased stress and negative thoughts for these individuals. However, how these individuals cope with their illness can determine their overall outlook and adjustment. Developing appropriate coping strategies can have a dramatic impact on a person's sense of well-being and self-satisfaction (Zeidner & Saklofske, 1996).

Moreover, the use of effective coping strategies has been assumed one of the most important variables in mediating the impact of chronic illness and learned helplessness (Kotchick, Forehand, Armistead, Klein & Wierson, 1996). Coping refers to cognitive and behavioral responses that individuals use to manage or tolerate stress (Lazarus & Folkman, 1984). The construct of coping has become central to stress theory because it has been recognized that health consequences of stress are influenced by coping as well as the amount of stress to which an individual is exposed.

1.1 Objectives of the Study

- To examine the relationship between locus of control and learned helplessness among chronic illness patients in Bahawalpur, Punjab.
- To assess how coping strategies differ between patients with internal and external locus of control in Bahawalpur, Punjab.
- To explore gender differences in coping strategies and learned helplessness among chronic illness patients.

1.2 Hypothesis of the Study

- There will be a significant relationship between locus of control and learned helplessness among patients with chronic illness.
- Coping strategies will differ significantly between individuals with an internal and external locus of control, with an internal locus of control being associated with more effective coping strategies.
- There will be significant gender differences in coping strategies and learned helplessness among patients with chronic illness.

2. Literature Review

The Studies of Rotter (1966) and other scientists show that the locus of control is formed in a social context and the attitude of the parents (careers) to their child has a particular role. If parents are supportive and encourage the achievements of the child, this forms an internal locus of control, which with accumulation of experience acquires resistance to generalized expectations of personal control over life.

Chronic pain patients often exhibit an external locus of control. If they believe that their future pain management relies primarily on external influences, such as physicians or chance factors like fate or luck, they may be more inclined to use passive coping strategies and perceive these strategies as less effective. Previous research has demonstrated that chronic pain patients who have a chance locus of control orientation toward pain are more depressed than patients who do not have this orientation (Turner & Clancy, 1986).

Rotter (1966) applied the empirical law of effect, which suggests that people are motivated to seek positive reinforcement and avoid negative stimulation. He also incorporated Skinner's (1974) concept of reinforcement, which proposes that the outcomes of an individual's actions, whether positive or negative, influence the likelihood of those actions being repeated in the future. Reinforcement affects an individual's expectation that a particular behavior or event will be followed by similar outcomes in the future. People with an internal locus of control believe that the outcomes of their actions are a result of their efforts, abilities, or permanent characteristics.

Kiefer (1990) investigated the differences between males and females regarding the attribution style and tried to uncover whether males or females are more likely to make pessimistic attributions leading to helplessness. In one study, women being subject to uncontrollable adverse conditions were found to make more pessimistic attributions (i.e., internal, universal, and stable attributions for failure) and show symptoms of helplessness more compared to men.

LeUnes, Nation & Turley (1980), in another research, found that women dealing with unsolvable anagrams in the first phase of the experiment were found to be less successful and motivated in the second phase compared to women dealing with solvable anagrams and not dealing with anagrams at all. Lack of motivation and performance decrement were not observed among male participants, which suggests that males are less vulnerable to helplessness when faced with uncontrollable adverse situations.

The researchers attributed males' greater resilience to helplessness to their socialization, proposing that the coping abilities they develop are influenced by the training and guidance received from their parents. Unlike many researchers claiming that women are more prone to feel helpless, Baucom and Danker-Brown (1979) stated that the roles attributed to males and females by society, not the mere sex made people feel helpless. Researchers have also found that individuals with high levels of either masculinity or femininity are more likely to experience feelings of helplessness compared to those who exhibit a balance of both masculine and feminine traits.

Overton & Meehan, (1982) that women show helplessness because they are more exposed to situations, which involve failure, lack of control, and punishment. Seligman (1990) observed that women might be more susceptible to feelings of helplessness due to a tendency to ruminate on their thoughts and attribute negative events to a pessimistic outlook. It is noteworthy to mention that some studies (Dweck & Licht, 1980) reported conflicting results concerning the effect of gender on helplessness.

Rozell, Gundersen, and Tersptra (1998) found no difference between male and female university students concerning the helplessness they felt. Like Baucom and DankerBrown (1979), researchers claimed that people having only feminine or masculine tendencies were more likely to feel helpless compared to people having androgen tendencies or gender-neutral identities. Considering the conflicting results, it is hard to conclude that a particular type of sex induces learned helplessness. Getting lower wages and salaries and having to deal with prejudgments, gender discrimination, and role conflicts could make women employees more vulnerable to helplessness. However, the support given by coworkers, managers, and family could alleviate the effects of adverse work conditions and lack of controllability, hence increasing the resilience of women employees.

Cemalçılar, Canbeyli, and Sunar, (2003) argued that on neuroticism scale under helplessness symptoms, women having high scores exhibited helplessness symptoms (took longer to solve anagrams) more than women with lower scores. However, the same result was not replicated for male participants, who seemed to be more affected by agreeableness. In that study, men scored higher on the agreeableness subscale and solved anagrams faster than others; which indicates that agreeableness alleviates helplessness to a certain extent. Schaufeli and Buunk, (2003) revealed the effect of neuroticism and native affectivity on burnout, depression, and stress, which was associated with helplessness. In the

literature, people scoring high on native affectivity are argued to feel more stress, focus more on their failures, and evaluate themselves more natively, which could create helplessness.

Brunstein and Olbrich (1985), action-oriented individuals unlike state-dependent ones increased their effort to control outcomes after being exposed to uncontrollable events and seemed to be more resistant to apathy, thereby helplessness. Previous studies have indicated that individuals with an internal locus of control and low achievement motivation are more susceptible to feelings of helplessness (Martinko & Gardner, 1982). From the literature review, it can be concluded that traits such as neuroticism and personality type can increase susceptibility to feelings of helplessness. However, these characteristics alone cannot be considered the only factors determining helplessness.

Initial studies on coping with chronic illness examined how coping strategies influence psychological adjustment, particularly given the strong link between physical health and emotional well-being. Researchers found that some coping approaches proved more effective than others. Folkman and Lazarus (1980) found in their research on coping that middle-aged adults dealing with health issues were more likely to use emotion-focused coping, which aims to reduce negative emotional responses to stress, rather than problem-focused coping, which addresses the source of stress directly. Emotion-focused coping was especially prevalent when the situation was seen as uncontrollable.

This point is especially relevant to the study of chronic illnesses because many have symptoms or features that are long-lasting, unpredictable, and difficult to control. Further elaborating on these two distinct styles of coping, Billings and Moos (1981) conceptualized coping as either active or avoidant and found that mood, social resources, and symptom levels were all significantly related to an individual's coping responses. Felton and Revenson (1984) continued to look at the influence of coping on psychological adjustment with a sample of chronically ill individuals who had diabetes mellitus, rheumatoid arthritis, hypertension, or systemic blood cancer. The authors specifically selected these illnesses in their study to represent a spectrum of "controllability," referring to the individual's ability to influence the course and nature of their disease.

Felton and Revenson (1984) measured active coping by operationalizing it as information-seeking behavior and avoidant coping was operationalized as wish-fulfilling fantasy. The authors discovered that emotional release, self-blame, and wishful thinking were linked to less effective overall adjustment. Information seeking was related to better psychological adjustment, possibly because these individuals were more informed about their symptoms and able to engage in beneficial health practices. In addition, coping was not affected by differences in controllability of the illness, but the degree of control was still believed to have some effect on the adjustment process. The research done by these authors has continued to influence more recent studies of the process of adaptation and chronic illness.

Another study by Penninx et al. (1998) highlighted that social support and personal coping resources can influence how chronic illness affects psychological health, noting that these factors contribute to variability in psychological outcomes. The researchers wanted to see what effects these two factors had on depressive symptoms across five different chronic diseases ranging from diabetes to cardiac disease. The study showed that having a partner and numerous close relationships had a direct favorable effect on a person's psychological state regardless of the presence of chronic disease (Penninx et al., 1998).

Support appears to play an integral part in coping with chronic disease. In one study, high levels of social support were associated with improved health outcomes and long-term self-management (Glasgow, Strycker, Toobert, & Eakin, 2000). While adopting an active coping style is usually a personal response to illness, effective coping strategies often require individuals to reach out to others or utilize resources offered by other people.

2.1 Rationale of the present study

The study aims to examine the relationship between locus of control, learned helplessness, and coping strategies among patients. The main goal is to identify how locus of control and learned helplessness relate to coping strategies among patients with chronic illnesses. Through quantitative inquiry, this study investigates how patients with chronic illnesses at Bahawal Victoria Hospital in Bahawalpur, currently enrolled in health professions programs, manage their condition, encounter barriers, and cope with stressors.

3. Material and Methods

3.1 Research Design

The study utilized a quantitative and cross-sectional research design, which facilitated data collection without altering the variables of interest. This allowed the examination and documentation of variables as they naturally manifest within the participant group.

3.2 Sampling Technique

The data was collected using a stratified sampling technique. In the first step, southern Punjab was selected. Then, patients with three types of chronic illnesses (Heart, Kidney, and Diabetes) were chosen from Victoria Hospital in the Bahawalpur district.

3.3 Sampling procedure

As per the sampling criteria, 52 males and 48 females were selected from the wards (Heart, Kidney, and Diabetes) of Victoria Hospital. The sample included 30 heart patients, 35 kidney patients, and 35 diabetic patients. This sampling technique has been used in various research studies involving patients. Both male and female patients were included in the data collection.

3.4 Sample Size, Power, and Precision

In total, 100 patients were selected. The sample of this research was justified using online A-priori statistics multiple regression analysis.

3.5 Participants

The participants in this study were patients with chronic illnesses, including both males and females, from the Bahawalpur District. A total of 100 participants were included in the study, consisting of patients with heart disease, kidney disease, and diabetes. Data was collected through interviews and questionnaires. Only patients with chronic illnesses such as kidney disease, heart disease, and diabetes were included in the study. Patients with chronic illnesses such as cancer and tuberculosis were excluded from this study.

3.6 Research Instruments

The present study sets out to gauge three main variables; locus of control, learned helplessness, and coping strategies. To assess the association of these variables among the desired population following questionnaires were used. Participants were asked to fill in the questionnaire which was comprised of demographic information, the Locus of Control Scale (Rotter, 1966), the Learned Helplessness Scale, (Quinless & Nelson, 1988), and the Coping strategies Scale (Hamby, Grych, & Banyard, 2013).

3.7 Procedure

The total sample comprised 100 respondents, selected using a stratified sampling technique. Data was collected from Victoria Hospital Bahawalpur, specifically from patients with chronic illnesses such as diabetes, heart disease, and kidney disease. In the first step, permission was obtained from the relevant authorities to approach patients as research participants. Both male and female patients were then conveniently approached in a hospital ward. They were briefed about the purpose of the research and, after ensuring confidentiality, informed consent was obtained. The respondents were asked to complete a demographic sheet and questionnaires.

3.8 Statistical Analysis

The collected data was analyzed using SPSS (23.0). Bivariate correlation analysis was employed to examine the relationships among all variables. ANOVA was used to analyze differences among group means, while an independent samples t-test was used to compare two groups of demographic variables for hypothesis testing.

4. Results

Table 1 Means and Standard Deviations of Age and Number of Family Members of the Heart, Kidney and Diabetic patients

Variables	<i>M</i>	<i>SD</i>
Age (years)	48.58	14.25
No. of Family Member	5.97	1.60
Time /Duration of illness (months)	47.94	39.61

Note. M =Mean; standard deviation.

Table 1 shows that the mean age of 100 Patients is 48.58 (SD 14.25), the mean number of family members is 5.97(SD 1.60) and the mean duration of illness is 47.94 (SD 39.61)

Table 2 Comparison between Males and Females through Independent sample t-test in Coping Strategies and factor of Learned Helplessness (N=100)

Variable	Male (n =48)		Female (n =52)		t	95%CI	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		<i>LL</i>	<i>UL</i>
CSS	33.81	6.85	32.07	6.431	1.30	-0.900	4.375
Factor 1	13.43	2.90	12.44	2.77	1.75	-0.133	2.12
Factor 2	13.08	1.99	12.90	2.62	0.382	-0.753	1.11
Factor 3	14.58	2.72	14.38	2.91	0.351	-0.924	1.32
Factor 4	5.60	1.39	4.96	1.31	2.37	0.105	1.18
Factor 5	5.16	1.46	4.57	1.28	2.14	0.043	1.36

Note. CSS=Coping strategies scale; M=Mean; SD=Standard deviation.

The above table shows that there is no significant difference between male and female on Coping strategies and factors of learned helplessness. The mean of males is higher as compared to females.

Table 3 One-way analysis of variance of scores of coping strategies and learned helplessness (N=100)

Factors	External Locus of Control		Both External and Locus of control		Internal Locus of control		F	sig
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
CSS	33.0	6.68	31.41	6.36	34.74	6.70	3.09	0.050
Factor 1	10.25	2.06	12.41	2.81	13.79	2.73	4.88	0.010
Factor 2	10.25	3.50	13.03	2.37	13.18	2.061	3.02	0.053
Factor3	12.0	3.46	14.7	2.91	14.34	2.56	1.92	0.152
Factor4	5.25	2.75	5.13	1.20	5.44	1.44	0.590	0.556
Factor 5	4.25	1.50	4.69	1.43	5.11	1.33	0.235	0.235

Note.CSS=coping strategies scale; M= Mean; SD=Standard deviation; * $P<0.05$.

There was a significant mean difference among the different levels of locus of control. The mean of the internal locus of control was higher. This shows that the patient's tendency of internal control was higher.

Table 4 Summary of inter-correlation, Mean, and standard deviation for scores of CSS and factors of learned helplessness (N=100)

Factors	1	2	3	4	5	6
CSS	--	0.233	0.141	0.198*	0.152*	0.121
Factor 1	0.233*	--	0.569**	0.366**	0.478**	0.135
Factor 2	0.141	0.569**	--	0.432**	0.363**	0.083
Factor 3	0.198*	0.366**	0.432**	--	0.254*	0.053
Factor 4	0.152	0.478**	0.363**	0.254*	--	-0.085
Factor 5	0.21	0.135	0.083	0.053	-0.085	--
<i>M</i>	32.91	12.92	12.99	14.48	5.27	4.86
<i>SD</i>	6.66	2.86	2.37	2.81	1.38	1.80

Note. CSS=Coping strategies scale; 1=factor 1;2=factor2;3=factor3;4=factor 4;5=factor5; Table 5 shows that coping strategies are the significant correlation of CSS with factors of learned helplessness but there is no significant relation with factor 5; *Correlation is significant at the 0.05 level; **Correlation is significant at the 0.01 level.

Table 5 Summary of inter-correlation between Learned helplessness and Locus of Control (N 100)

Factors	1	2	3	4	5	6
Factor 1	--	0.569**	0.366**	0.478**	0.135	0.300**
Factor 2	0.569**	--	0.432**	0.363**	0.083	0.184
Factor 3	0.366**	0.432**	--	0.254*	0.053	0.136
Factor 4	0.478**	0.363**	0.254*	---	0.085	0.185*
Factor 5	0.135	0.083	0.053	-0.085	--	0.118
Locus of Control	0.300**	0.184	0.136	0.198*	0.118	--
<i>M</i>	12.92	12.99	14.48	5.27	4.86	59.58
<i>SD</i>	2.86	2.33	2.81	1.38	1.40	10.91

Note.1=Factor 1;2=factor 2;3=factor3;4=factor4;5=factor5;6=locus of control=Mean; SD=standard deviation; This table shows that there is a significant relation of locus of control with factor 1 and factor 3 but there is no relation with other factor; *Correlation is significant at the 0.05 level; **Correlation is significant at the 0.01 level.

Table 6 Summary of Inter Correlation, Mean, Standard Deviation of Scores of CSS and locus of control (N=100)

Factors	1	2
CSS	--	0.237*
Locus of Control	0.237*	---
<i>M</i>	32.91	59.58
<i>SD</i>	6.66	10.81

Note. CSS=coping strategies scale; M=Mean, SD=Standard deviation; The above table shows that coping strategies were significantly correlated with locus of control; *Correlation is significant at the 0.05 level; **Correlation is significant at the 0.01 level.

5. Discussion

This research aimed to measure the Locus of control, Learned Helplessness, and Coping Strategies among patients with chronic illness. In total, (N=48) males and (N=52) females were selected by use of a stratified sampling from Wards of Victoria Hospital Bahawalpur. Three questionnaires were used for data collection, Locus of Control Pettijohn (1992) comprised 20 items, Learned Helplessness (Quinless & Nelson, 1988) comprised 20 items, and coping strategies adapted from Holahan and Moos's (1987) comprised 13 items.

Our study explores the link between locus of control and learned helplessness, suggesting that having an external locus of control could be related to a higher risk of experiencing learned helplessness. This connection arises because individuals with an external locus of control often believe that their efforts have little effect on their circumstances, potentially leading to feelings of helplessness. Kobasa et al. (1982) hypothesized that people who believe that they can control events, who are deeply committed to the people and activities in which they are involved, and who accept change as a challenge tend to remain healthier under stress than those who believe that they are powerless to shape events, that activities and social ties lack. Effective coping strategies, which are essential for managing stress and adapting to uncertainty, have been discussed extensively by researchers such as Carver, Scheier, and Weintraub (1989) and Lazarus and Folkman (1984).

The findings of this study are consistent with previous research, such as Kraaij et al. (2009), who found that passive and avoidant coping methods, including self-blame and disengagement, were significant predictors of negative emotional outcomes in their regression analysis. Moreover, Theadom et al. (2007) found that negative affect was significantly and inversely correlated with active coping and positive reinterpretation in patients with fibromyalgia. Ben-Zur and Zeidner (2012) examined coping-affect relationships in adolescents, undergraduate students, and a sample of the general community, she found that avoidance coping showed a positive association with negative affect, $\beta = .31, p < .001$, and a negative association with positive affect, $\beta = -.24, p < .001$ (Ben-Zur & Zeidner, 2012).

Kobasa's concept of challenge describes a positive attitude toward change as experienced by those who seek interest, who develop flexible coping styles, and are catalysts in their environment (Kobasa 1979). Antonovsky suggests that persons who find some areas of life meaningful are likely to view the problems and demands of those activities as challenging rather than burdensome challenges, then, as conceptualized in the Salutogenic Model, would be a function of meaningfulness. Kobasa placed the challenge on a level with commitment, operating with its health-promoting potential the hardy personality typology.

It was observed in our results that the patients were significantly more drawn toward externalism in comparison to the healthy controls. Strong social support is significantly linked to health-promoting behaviors and overall well-being in patients with Type II diabetes. However, higher HbA1c levels observed in cohabiting individuals suggest potential obstacles to receiving adequate social support. Research interventions are required to examine how social networks causally influence health-promoting behaviors. This knowledge should inform clinical practice by guiding the development of education, support, and care strategies for patients with Type II diabetes.

6. Conclusion and Recommendations

This study provides valuable insights into the interplay between locus of control, learned helplessness, and coping strategies among patients with chronic illnesses such as heart disease, kidney disease, and diabetes. Utilizing a quantitative cross-sectional design and a stratified sampling technique, data from 100 patients were gathered through interview-based surveys at Victoria Hospital in Bahawalpur. The instruments used, including the Pettijohn Locus of Control Scale, Quinless & Nelson Learned Helplessness Scale, and the Coping Strategies Inventory, revealed significant correlations among the variables. The analysis underscored that individuals with an internal locus of control are more likely to engage in active coping mechanisms, while those with learned helplessness tend to exhibit passive/avoidant coping strategies. The findings align with previous literature, suggesting that effective coping strategies are crucial for managing stress and improving outcomes in chronic illness. Moreover, gender differences and psychological resilience were notable factors influencing coping behaviors, emphasizing the need for tailored interventions. Future research should explore these dynamics further and consider integrating psychosocial support to enhance coping capacities and overall well-being in chronic illness patients.

The present research encompassed the population based on Bahawalpur District; generalizability of results of Punjab Pakistan cannot be claimed. This study addresses only the moderating factors that might be more helpful to understanding the relationship between Locus of control, Learned Helplessness, and coping strategies. Only patients

with chronic illness heart, kidney, and diabetics included in this study. For upcoming researchers, it is advised to study Locus of control and learned helplessness (separate or both) more comprehensively, including other predictors, mediating and moderating variables. It should be commissioned qualitatively as in other psychological problems. Take into account a large sample size to establish more authentic results.

Expanding the research scope to include a wider variety of chronic conditions will help generalize findings and address unique challenges across different illnesses. Additionally, investigating cultural and socioeconomic factors can lead to more inclusive and culturally sensitive care approaches. Technology, such as mobile health applications and telehealth services, offers promising avenues for providing continuous support and resources tailored to individual needs.

Finally, there is a need for educational programs that equip healthcare providers with a deeper understanding of the psychological dimensions of chronic illness management. Training on how to assess and address locus of control and learned helplessness can enhance providers' ability to support patients in developing effective coping strategies. By integrating these future directions, healthcare systems can offer more comprehensive, adaptive, and personalized care for patients facing the challenges of chronic illness.

Compliance with ethical standards

Disclosure of conflict of interest.

All authors have no conflict of interest

Statement of ethical approval

Before the collection of any data from the sample, the approval was taken from the Head of Bahawal Victoria Hospital, Bahawalpur.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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