

**Chronic disease prevalence has increased and is estimated to rise over the next 50 years. Explore the psychological impact in managing chronic diseases such as alcohol related liver disease.**

**Abstract:**

Chronic diseases are long term conditions with numerous associated risk factors and complicated outcomes. These conditions burden a large amount of the population, with alcohol related illnesses making up a significant portion. This study supports the correlation of chronic diseases with mental health conditions such as depression, which can worsen numerous aspects of the disease and its complications. Certain pathways regarding the manifestation of these additional illnesses have been hypothesized and researched as well as how this can play a role in patients sticking to their treatment regimes. The impact these numerous diseases can have on a patients' self-care have been apparent, with increased complications of the chronic disease consequently. Social support can come in many forms and services and can have profound impact on the patient, their self-care and mental health overall.

## **Introduction**

Over the course of a person's life span they will encounter certain illnesses and diseases. Chronic diseases, such as hepatitis C, alcohol related liver disease (ARLD), and cirrhosis pose a significant burden to the individual's health and the economy. With an estimated global prevalence of 112 million from 2017, cirrhosis acts as a major cause of mortality with an estimated 1.4 million deaths [1]. Hepatitis C and ARLD are major risk factors with 21% and 20-50% prevalence, respectively, in cirrhotic patients [1]. This can exacerbate disease progression and accelerate the rate of irreversible damage to the liver. Being affected with a chronic illness can often raise the risk of comorbidities, especially with mental illnesses thereby increasing the impact on the patient's quality of life overall [1]. This can have increased negative effects overtime leading to a worse prognosis and disease progression through several factors. The effective use of social support to assist patients and help provide a framework to work off can help show the value brought by using such services. This essay aims to cover the impact psychological issues can have on chronic diseases with a greater focus on ARLD. By providing an overview on chronic illnesses, the presence of mental illnesses and the impact they have on the disease, we can achieve a greater understanding on the consequences this has on the patient's overall health. The essay will also be outlining the types of social services and support available to influence health behaviour.

## **Chronic diseases and psychological impact**

Living with a chronic disease can pose significant physical challenges and have a profound impact on the psychological state of the patient, which can affect their mental wellbeing and coping mechanisms. Chronic disease is a longstanding condition with multi-factorial aetiology, gradual changes overtime and no definitive treatment [2]. Chronic diseases can include diabetes, depression and what has already been mentioned prior and is acting as a major financial burden, costing the US \$3.7 trillion annually [3]. Chronic disease is often accompanied with other

conditions leading to the rise of comorbidities such as mental illnesses. A qualitative meta-synthesis was used to assess prevalence of depression and anxiety in chronic conditions and found increased rates supporting the previous statement [4]. Four pathways were found in the study that provided possible links between chronic conditions and the mental conditions mentioned [4]. The first pathway considered chronic disease leading to depression or anxiety which was evident in the majority of research papers [4]. Multiple factors of chronic disease such as loss of a sense of self, uncertainty and social isolation can contribute towards depression and anxiety [4]. Many patients reported expressing sadness due to the dramatic changes to their life and the physical burdens that follow because of the limitations given by the disease [4]. The limitations mentioned often carry over in all aspects of a patient's lifestyle resulting in feelings of frustration which can influence and increase social isolation. Reduced social contact can distance friendships and relationships which can play a role in worsening mental symptoms due to the impact caused by the chronic condition [4]. Concerns surrounding uncertainty were prevalent since patients were worried about their prognosis, rise of complications and accepting the presence of the unknown especially after knowing the condition is incurable [4]. This can reflect bouts of anxiety as patients reported cases of insomnia and irritability [4]. Feeling guilty was a major theme reported which can heighten negative emotions and depression [4]. Patients can blame themselves for the disease progression and often describe it as "paying the price" after decades of accumulated damage [4]. While this pathway was strongly supported in numerous peer-reviewed literature, it is important to consider the other links found to have a better understanding of the multifactorial nature of these conditions.

The second pathway investigated depression or anxiety as factors that can lead to chronic disease. The available literature considered the possibility that heightened negative emotions, in some instances, can lead to chronic diseases [4]. This can be seen in certain cases where heart disease could have been attributed to depression or hypertension caused by constant irritability and distress [4]. While this pathway was less supported, it is important to acknowledge the impact of depression and

anxiety in the manifestation of a chronic disease. The third pathway suggested an equal link between depression or anxiety and chronic disease, where one worsened the other. This statement was found in other studies which also established a 2-way link between depression or anxiety and chronic disease, suggesting chronic disease increases the risk of mental health issues leading to the exacerbation of the disease which, in turn, worsens mental health itself [3]. The patient may participate in social activities less due to the limitations imposed by the chronic disease. This can increase social isolation and increase feelings of distress and depression, which can prevent further engagement in social activities resetting the vicious cycle altogether. The final pathway considered depression or anxiety and chronic disease as independent factors. Certain studies found the presence of these mental conditions coincidental and their manifestations due to unrelated causes to the chronic disease itself such as increased family related problems regarding personal and financial difficulties [4]. Depression, as mentioned, can have deleterious effects overtime. Depressed patients are less likely to ask for help, adhere to their medication or employ adequate self-care through nutrition and physical activity [3]. In a physiological level, depression can increase inflammation, cause changes in heart rate and increase stress hormone production which can put the patient at an increased risk of developing chronic disease [3]. With a better understanding of chronic diseases, psychological impact, and the link between them we can appreciate and outline the impacts present on medical adherence and self-care practices in patients suffering from chronic disease.

### **Motivation and adherence to treatment**

The psychological impact of mental health conditions and chronic diseases can also act as a barrier influencing adherence to treatment plans and consistent use of self-care activities. Adherence to medications can vary from complete non-adherence, partial adherence to complete adherence [5]. Numerous studies estimate over 50% of patients undergoing long term therapy have a degree of non-adherence [5]. Reasons for non-adherence are wide and can include numerous options such as failure to acquire and take the medication when required and altering the dosage,

frequency, and duration [5]. This can lead to numerous consequences to the patient such as a reduced quality of life because of increased disease progression, healthcare resources and morbidity [5]. It is important to consider a person's lifestyle and the influence it can have on adherence. Since depression is heavily linked with a reduction in motivation and hospital visits, an unhealthy lifestyle was found to have a strong implication in worsening treatment adherence as well [5]. Avoiding physical activity and self-care practises whilst indulging in unhealthy eating, alcohol and tobacco consumption can worsen disease progression and exacerbate symptoms. Since an unhealthy lifestyle has already been linked with a reduced adherence, this results in further damage and disease progression forming another vicious loop where one factor worsens the other. Effective usage of self-efficacy principles has been linked with stronger adherence as a strong belief of one's own body, and recognising when something is wrong can often reinforce their conviction to persist with their treatment plan [5]. Being able to handle external stress and develop healthy coping mechanisms is essential for patients suffering from chronic diseases where difficult experiences become common and apparent. The research found those with consistent and adequate coping mechanisms to adhere more strongly to their treatment than those that did not [5]. Constantly experiencing negative emotions without a means to address and deal with them can often damage a lot of patients psychologically, leaving them reluctant to seek help and improve their situation. This raises more importance towards the long-term use of self-care practises to help deal with such problems.

### **Impact on self-care**

Being affected by a chronic condition can desensitise a lot of patients making it more difficult to incentivize adopting a healthy self-care routine. Having depression or other mental conditions accompanying the chronic condition can also make performing self-management even more difficult. A study conducted research assessing degrees of self-care across patients with chronic conditions and depression and found numerous deficits across many sections. A link was found between poor

diet and symptom monitoring with chronic disease patients [6]. It also found increased levels of depression and severity which further supports the notion of the link between psychological issues and chronic disease [6]. Education on the disease, the treatment and contraindications are a vital aspect of patient management and self-care influenced by the doctor and patient. The study reported only 39.6% of the patients suffering from cirrhosis recognise hepatotoxic medication which portrays the importance of the healthcare professional in providing adequate education and access to resources as well as the patient in applying self-efficacy principles and taking charge in researching the available literature [6]. Other causes of poor nutrition included associating symptoms impacting intake such as fatigue, pain, and nausea [6]. Interestingly, this study found the participants were more likely to adhere to their medication than their diet as they felt the former was directly controlling and managing their symptoms of cirrhosis whereas the diet didn't [6]. Cirrhotic patients who also had depression were more reluctant to communicate with their healthcare professional, had less questions and were less likely to take care of themselves, which supports the previous link between chronic disease sufferers and seeking healthcare [6]. Maintaining a good clinical suspicion for those experiencing difficulties adjusting to chronic diseases is paramount in maximising patient compliance and long-term treatment adherence. From then on, proper counselling can be provided to work on coping strategies such as relaxation via anxiety reduction techniques, finding social support and utilising social workers [6].

### **Exploring social support**

Social support can play a major role in managing chronic conditions if used effectively, providing patients with a plethora of resources, access to emotional aid and additional help to positively impact their disease management, treatment outcome and wellbeing. Social support is access to social ties with other people, groups, and communities for psychological, physical, and financial support [7]. This can include friends, family members and healthcare providers [7]. Social isolation can worsen depressive symptoms and chronic conditions, as previously mentioned, and

can lead to an increase in mortality and other conditions rising. High levels of social support have been shown to diminish or even protect the patient against mental and physical illnesses [7]. To further reinforce this statement, higher levels of social support has been found to decrease functional impairment in patients with depression and boost chances of recovery [7]. Figure 1 can help illustrate the role of social workers in delivering patient-centred care for patients and their families [8].

	<b>Causes of Psychosocial Distress</b>	<b>Social Worker Interventions</b>	<b>Psychosocial and Healthcare Outcomes</b>
<b>Instrumental Support</b>	Financial Hardship Fragmented Care Housing Insecurity Food Insecurity	Financial Navigation Care Coordination Housing Assistance Food Assistance	Financial Health Healthcare Utilization Housing Security Food Security
<b>Informational Support</b>	Limited Illness Understanding Limited Prognostic Understanding	Patient Education Caregiver Education Advance Care Planning	Health Literacy Self-Efficacy Informed Decision-Making Prognostic Understanding End-of-Life Care Outcomes
<b>Emotional Support</b>	Uncertainty Stigma Depression Anxiety Social Isolation Addiction Caregiver Burden	Psychoeducation Group Therapy Cognitive Behavioral Therapy Brief Motivational Intervention Relapse Prevention Therapy Patient/Family Counselling	Psychological Well-being Adaptive Coping Abstinence Patient Quality of Life Caregiver Quality of Life

**Figure 1: Table outlining causes of distress in chronic condition sufferers and available interventions by social workers. [8]**

Social workers factor in the patient’s social context, environment, and personal situation to improve upon their health and quality of life [8]. As shown on fig.1, social workers can employ interventions such as psychoeducation, care coordination and linkages between communities and other services to improve upon certain psychological distresses and achieve a better health outcome [8]. Regarding services they can refer you to, these can vary depending on the area patients live in and the availability of certain services. Services can include Hackney’s access to alcohol recovery centres, substance misuse services, mental health support and anonymous hotlines that remain open 24/7 [9]. The services put in place can act as a bridge for patients wanting to improve their quality of life but are not so sure on how to start or for those requiring extra support.

## **Conclusion**

The presence of mental conditions with chronic diseases will remain a global burden, negatively impacting people suffering from it. The presence of psychological issues can negatively influence numerous factors of the patient's life including their adherence to treatment and general self-care practises. Neglecting such aspects can result in further disease progression and a worsening of symptoms and prognosis. The application of social support becomes increasingly useful when considering the profound benefits gained from its consistent use. With that being said, the rise in chronic disease prevalence should call forth further research to get a better understanding about the links between psychological symptoms and chronic diseases as well as how we can work to minimise this severity by providing a more tailored framework for patients to utilise during their long-term disease management.

## References:

[1]: Huang DQ, Terrault NA, Tacke F, Glud LL, Arrese M, Bugianesi E, et al. Global epidemiology of cirrhosis - aetiology, trends and predictions [Internet]. Nature Publishing Group; 2023 [cited 2023 Jun 5]. Available from: <https://www.nature.com/articles/s41575-023-00759-2#:~:text=By%20contrast%2C%20HCV%20infection%20was,33%25%20during%20the%20study%20period.>

[2]: Martin CM. Chronic disease and illness care: Adding principles of family medicine to address ongoing health system redesign [Internet]. U.S. National Library of Medicine; 2007 [cited 2023 Jun 5]. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2231531/>

[3]: Hayes TO, Tara O'Neill Hayes Former Director of Human Welfare Policy Tara O'Neill Hayes is the former Director of Human Welfare Policy at the American Action Forum., Thinking the Unthinkable: The Risks of a U.S. Treasury Default Gordon Gray, Gray G, Evaluation and Macroeconomic Impact of the FairTax Gordon Gray, The Future of America's Entitlements: What You Need to Know About the Medicare and Social Security Trustees Reports Jackson Hammond, et al. Background: Understanding the connections between chronic disease and individual-level risk factors [Internet]. 2020 [cited 2023 Jun 5]. Available from: <https://www.americanactionforum.org/research/background-understanding-the-connections-between-chronic-disease-and-individual-level-risk-factors/>

[4]: DeJean D, Giacomini M, Vanstone M, Brundisini F. Patient experiences of depression and anxiety with chronic disease: A systematic review and qualitative meta-synthesis [Internet]. U.S. National Library of Medicine; 2013 [cited 2023 Jun 5]. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3817854/>

- [5]: Bąk-Sosnowska M, Gruszczyńska M, Wyszomirska J, Daniel-Sielańczyk A. The influence of selected psychological factors on medication adherence in patients with chronic diseases. *Healthcare*. 2022;10(3):426. doi:10.3390/healthcare10030426
- [6]: Dong N, Chen W-T, Bao M, Lu Y, Qian Y, Lu H. Self-management behaviors among patients with liver cirrhosis in Shanghai, China: A cross-sectional study. *Clinical Nursing Research*. 2018;29(7):448–59. doi:10.1177/1054773818777914
- [7]: Ozbay F, Johnson DC, Dimoulas E, Morgan CA, Charney D, Southwick S. Social Support and resilience to stress: From neurobiology to clinical practice [Internet]. U.S. National Library of Medicine; 2007 [cited 2023 Jun 5]. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2921311/>
- [8]: Ufere NN, Hinson J, Finnigan S, Powell EE, Donlan J, Martin C, et al. The impact of social workers in cirrhosis care: A systematic review. *Current Treatment Options in Gastroenterology*. 2022;20(2):160–76. doi:10.1007/s11938-022-00381-2
- [9]: Alcohol advice and support [Internet]. [cited 2023 Jun 5]. Available from: <https://hackney.gov.uk/alcohol-support>

