

Congestive Heart Failure and Depression: Are medical professionals biased towards CHF patients with depression?

Katie Schumacher
Advisor: Dr. Bryan Karazsia



Abstract

Many studies indicate that medical professionals are biased toward patients based on patient characteristics, such as racial identity, gender identity, and physical or other abilities (e.g., Iezzoni et al., 2021). However, no studies examine if healthcare providers demonstrate systematically different diagnostic approaches based on mental health presentation. In this study, I recruited healthcare professionals to provide their diagnostic impressions and treatment recommendations for a patient with congestive heart failure (CHF) or a patient with CHF and depression symptoms. The findings suggest that medical professionals responded differentially to the same CHF presentation when presented in isolation versus comorbid symptoms of depression. However, the patterns did not always align with presenting symptoms. This study highlights the importance of advancing diagnostic processes at the intersection of physical and mental health.

Background Information

Congestive Heart Failure

- There are 26 million people affected worldwide by congestive heart failure (Alotaibi, 2019).
- Congestive heart failure is a severe condition in which the heart cannot pump enough blood throughout the body.

Depression

- Depression is one of the leading causes of global disability, as it affects approximately 280 million individuals worldwide each year (Grogans et al., 2022).
- People with depression often experience a depressed mood, fatigue, disturbances of sleep, and anhedonia (American Psychiatric Association, 2022).

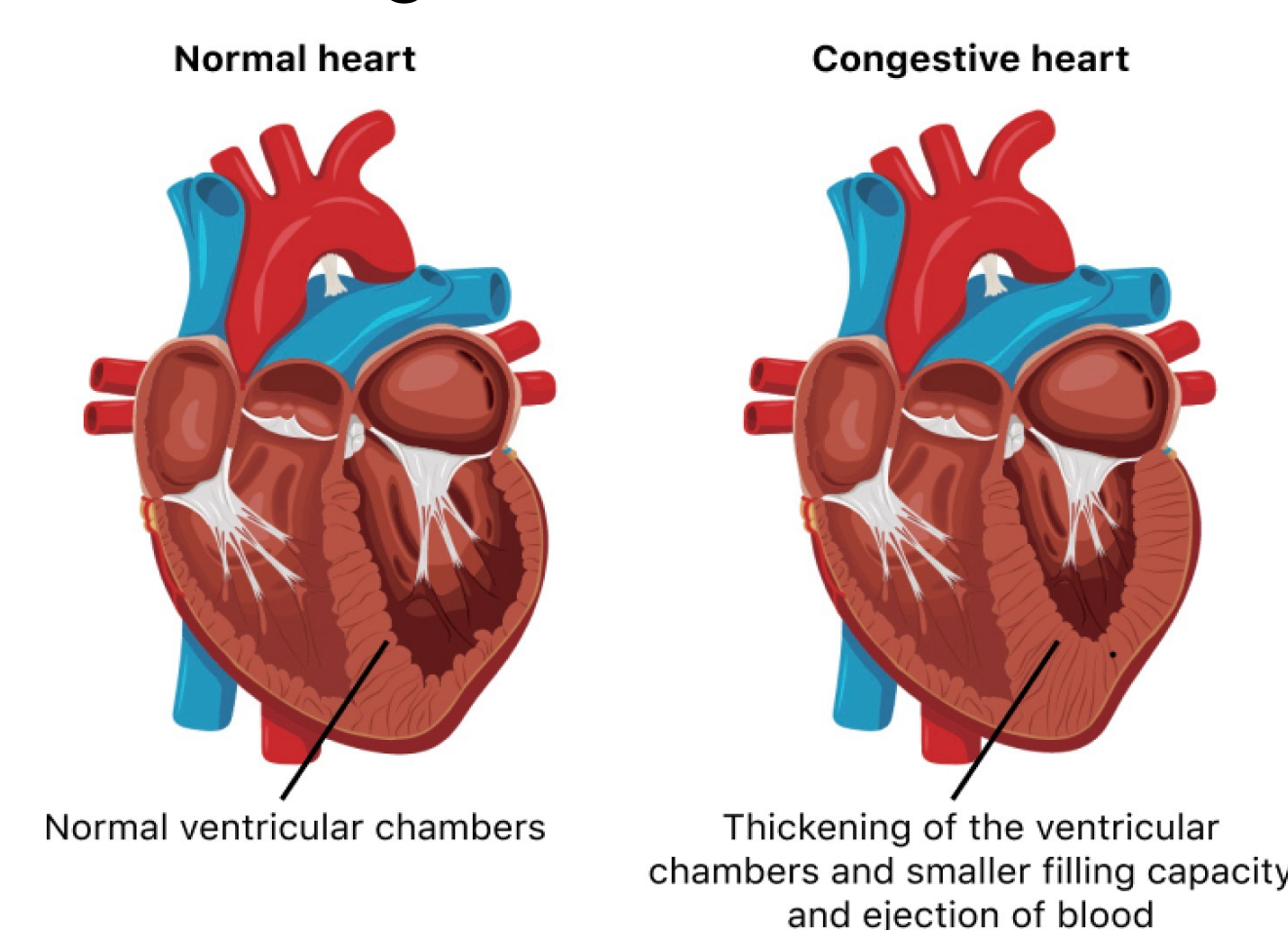
Approaches to Analyzing Qualitative Data in Psychology Research

- Thematic Analysis: used to identify, analyze, and report patterns or themes within qualitative data.
- Sentiment Analysis: I used the Linguistic Inquiry and Word Count (LIWC-22) program, which analyzes test-for-word use to give insight into experimental settings, which include attentional focus, emotionality, social relationships, thinking styles, and individual differences (Pathak et al., 2013).

Unconscious Bias

- Unconscious Bias: social stereotypes about a specific group of people that an individual forms without awareness.
- There are numerous examples of unconscious bias in the medical field, which include gender bias, disability bias, and racial bias (FitzGerald & Hurst, 2017; Iezzoni et al., 2021; Samulowitz et al., 2018).
- In this study, I was interested in biases related to mental health.

Figure 1. Normal vs. Congestive Heart



Current Study

In my study, I wanted to see if medical professionals were biased toward congestive heart failure patients that were also experiencing symptoms of depression. To do this, I asked medical professionals to respond to vignettes with their diagnostic impressions and treatment recommendations. Then, I compared the participants' responses to see if there were differential responses across presentation conditions. I hypothesized that medical professionals would be biased toward patients with congestive heart failure and depression.

Method

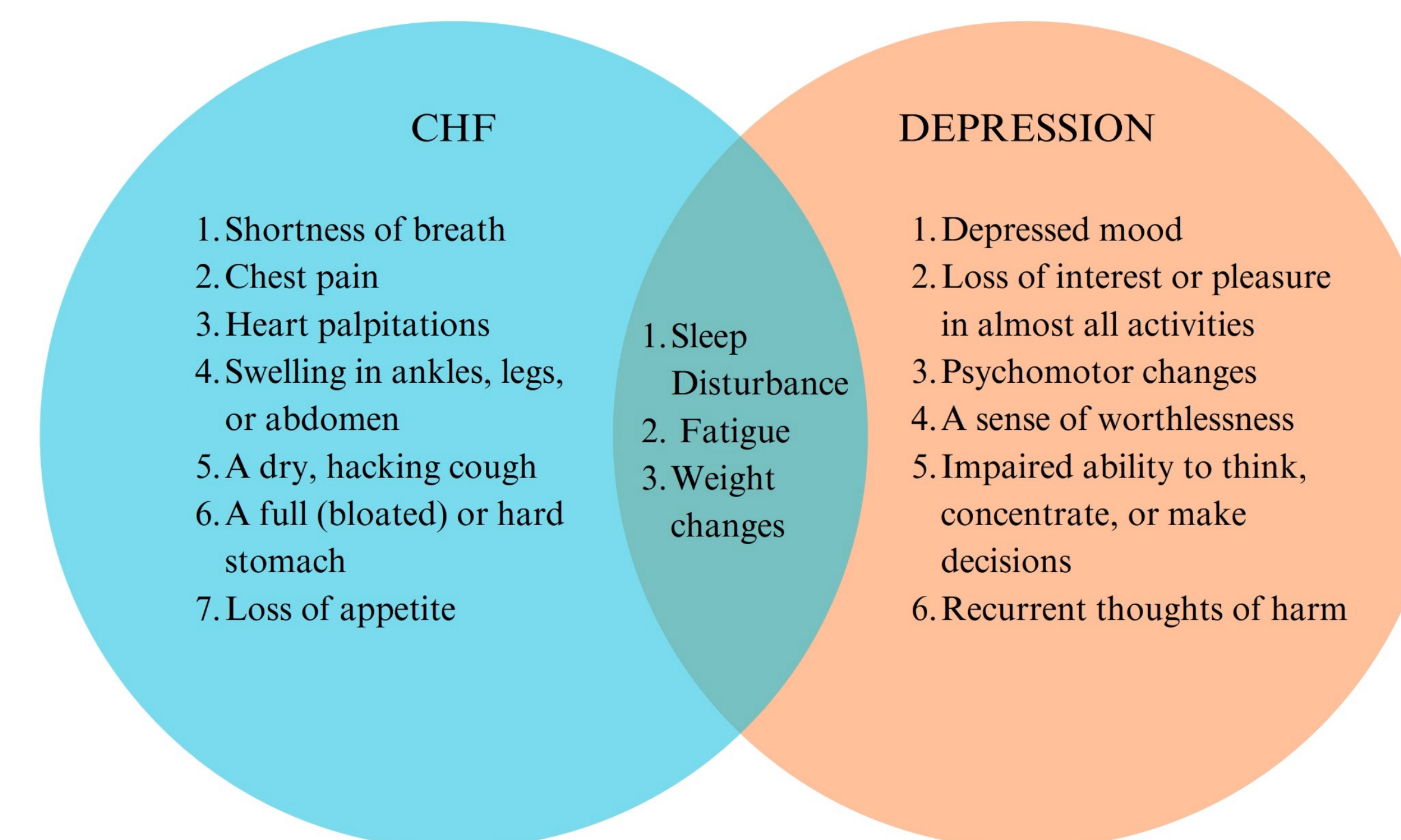
Participants

- 48 medical professionals were recruited to participate in the study through word of mouth (including Wooster's alumni network). Participants were physicians, physician assistants, nurse practitioners, medical school students, and physician assistants. The average age of the sample was 48 years old, and the average years of experience were 21.4 years. Also, there was a wide variety of specialties accounted for in the sample.

Vignette Stimuli

- Two vignettes were used in this study; participants were randomly assigned to one. One vignette included a case study of an individual experiencing symptoms of congestive heart failure. The second vignette included a case study of an individual with congestive heart failure and depression symptoms. The vignettes were used and adapted using published vignettes. After examining the case study, the participants were asked to walk me through their diagnostic impressions and recommended course of treatment. Once all participants completed their responses, the narratives with the participant's diagnoses and treatments were analyzed through thematic and sentiment analyses (LIWC-22).

Figure 2. Symptoms of CHF and Depression



Results

The thematic analysis revealed a total of 100 themes in medical professionals' responses to the vignettes. Study participants in the CHF diagnosis-only condition were significantly more likely to express a desire for additional information about the patient's condition. Participants that were presented with the case study with CHF and depression wrote with more clout, which is a linguistic style consistent with leadership and authority. The participants who reviewed the case study with CHF only wrote with more power when reporting their diagnostic impressions and treatment recommendations.

Table 1. CHF and Depression Diagnoses

CHF and Depression Diagnoses

	CHF alone	CHF with Depression	χ^2
CHF Diagnosis	40.9%	34.6%	.201
Depression Diagnosis	9.09%	53.8%	10.74*

*p<.05

Table 2. T-Test with LIWC-22 Variables

T-Test with LIWC-22 Variables

Variable	CHFonly		CHFdep		t(46)	P	Cohen's d
	M	SD	M	SD			
Clout	17.58	14.70	30.14	22.70	-2.228	.031*	-.646
Power	1.70	1.66	0.76	0.72	2.62	.012*	.759

*p<.05

Conclusion

This study illustrates the idea that there are systematic differences in how participants respond to the vignettes. In this study, the participants were more likely to just focus on depression symptoms, even though the patient was also experiencing symptoms of CHF. Due to this disparity within the healthcare system, patients may not feel comfortable talking about their mental health because they feel their healthcare provider will ignore other conditions that may be present. It is crucial that healthcare providers consider the totality of the patient's presentation to ensure that high-quality care is being provided. Additionally, participants spoke with more clout in the context of a patient with depression. Clout refers to relative social status. Overall, healthcare providers must acknowledge the results of studies such as this one because it will be the first step to eliminating biases and improving healthcare.

References

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