Cardiovascular Disorders and Management: Literature Review

Davis Coffey

Lakeview College of Nursing

N434: Evidence-Based Practice

Professor Eleni Key

July 4th, 2023

Cardiovascular Disorders and Management: Literature Review

A literature review provides a comprehensive overview of existing knowledge, theories, and research studies on a specific topic or research question. It serves several essential purposes in academic and research contexts. Examples include identifying the quality of evidence, finding research gaps, analyzing different research methodologies, and others. This paper explores three articles on cardiovascular disorders and management and provides a literature review for each.

Sexual Minorities are at Elevated Risk of Cardiovascular Disease from a Younger Age than Heterosexuals

This quantitative study examined the relationship between sexual identity and cardiovascular disease (CVD) risk among individuals (Sherman, 2022). Sexual minority (SM) men were more likely to be diagnosed with various heart conditions, including high blood pressure, high cholesterol, congestive heart failure, stroke, heart attack, and other heart conditions. These findings suggest that earlier screening for CVD may be necessary for SM populations, particularly among SM men. The study also highlighted the potential role of minority stress as a mechanism underlying the elevated CVD risk among SM populations. The study emphasized the need for comprehensive research and healthcare initiatives to address and prevent health disparities among SM individuals. The overall purpose of this study was to show a connection between SM individuals and a higher risk for developing CVD.

Key Points

One of the critical points the author conveys is that there is, in fact, a correlation between sexual minority individuals and being at a greater risk for CVD. Surveys and interviews were

conducted to evaluate whether an individual was classified as a sexual minority. Other data was accumulated and placed in tables. Some information included the individual's medical history, ethnicity, and social drug use. The data collected did show a correlation between the two factors making it significant data. The p-value for much of the data was also <0.05, proving that it was significant. The author completes his discussion of the data in a conclusive statement by saying, "Sexual minorities are at increased risk for high blood pressure and other heart conditions and are more likely to be diagnosed with these conditions at an earlier age than their heterosexual counterparts" (Sherman et al., 2022, p. 577).

Assumptions

By choosing the two factors of sexual minorities and cardiovascular disorders, the authors must have assumed that the two were correlated in some way. The authors quote the Minority Stress Theory stating that the "Minority stress theory suggests that sexual and gender minority individuals experience high levels of internalized and externalized stigma" (Sherman et al., 2022, p. 577). As also stated in the study, increased stress levels can put individuals at a greater risk of developing a cardiovascular disorder. Since the authors had mentioned the Minority Stress Theory in sexual minorities, they most likely figured that sexual minorities would be more likely to develop a cardiovascular disorder.

Deficit/Conclusion

This study and the authors' lines of reasoning are sound and logical. The findings of this article prove that sexual minorities are more likely to develop cardiovascular-related issues later in life (Sherman, 2022). This implies that nurses should encourage individuals of a sexual minority to have cardiovascular screenings earlier in life, more frequently, and to be closely

monitored for signs of CVD. Without nursing interventions and recommendations, sexual minorities have a greater chance of succumbing to CVD and the symptoms thereof.

Association of Education and Feedback on Hypertension Management with Risk for Stroke and Cardiovascular Disease

This study discusses how antihypertensive treatment has been proven effective in reducing the risk of stroke and cardiovascular disease through randomized controlled trials (Brunström et al., 2022). However, concerns remain about the representativeness of these trials, and the effectiveness of blood pressure lowering at the population level is uncertain. Hypertension control rates are still below 50% in many countries, and the global burden of non-communicable diseases is increasing. An intervention in Västerbotten County, Sweden, aimed to improve hypertension management. While the intervention was associated with reduced mortality rates, the link between blood pressure lowering and these outcomes is unclear. The differences in mortality outcomes between the intervention and control counties may not be solely attributed to the intervention.

Key Points

The critical point of the study is physician inertia. The reluctance to take action based on elevated blood pressure readings is identified as a contributing factor to suboptimal hypertension control rates (Brunström, 2022). The study aimed to reduce inertia through education and feedback on hypertension management. Reports have shown that the intervention reduced mean systolic blood pressure and improved treatment control rates among individuals with hypertension. Another critical point is that the intervention in the study reduced mortality rates but not overall blood pressure.

The study included over 150,000 individuals over different periods (Brunström, 2022). Data collected from medical charts and follow-up interviews were this study's primary information source. The p-value for this study is <0.05 or <5% making the data significant. The authors of this research study determined that education is associated with lowering mortality rates but not risks of stroke and cardiovascular events.

Assumptions

Because the data showed that higher blood pressure and other risks of cardiovascular events did not decrease with education, the authors could assume that education is not associated with the risk of cardiovascular events (Brunström, 2022). However, the educational intervention showed a significant decrease in patient death. Going into the study, the authors assumed that education would help decrease individuals' risks and mortality rates. However, only the mortality rate was decreased.

Deficit/Conclusion

The information and line of reasoning from the author's conclusion are sound and acceptable. Though the data concluded that education does not correlate to lowering the risk of cardiovascular events, it does correlate to lowering the mortality rate. Both nurses and physicians should still educate their patients on reducing the risk of cardiovascular events even though it may not prevent them. This will decrease the overall mortality rate in individuals.

Risk for Acute Myocardial Infarction After Ophthalmological Procedures

This study examined whether ophthalmologic procedures increase the short-term risk of acute myocardial infarctions (AMI) (Sen et al., 2022). The research found a reduced short-term risk of

AMI associated with these procedures, and the risk did not significantly differ based on surgical subtypes, anesthesia type, invasiveness of procedures, surgery duration, or patient characteristics. Previous studies that have been conducted provided conflicting results. The findings suggest that ophthalmologic procedures are generally safe, and the perioperative measures to decrease AMI risk are satisfactory.

Key Points

The article's main point is that ophthalmologic procedures generally have a reduced short-term risk of acute myocardial infarction (Sen et al., 2022). The data that proved these results were taken from many individuals on the Norwegian Patient Register and Swedish National Patient Register. The research design used was a case-crossover design. The p-value for the majority of the data was <0.05, making the data used for this study significant. Most of the results from the data found a decreased amount of myocardial events following the eight-day post-procedure than during the eight days following three weeks post-procedure.

Assumptions

Since previous research has mixed conclusions on whether patients are at risk of an acute myocardial infarction following an ophthalmologic procedure, it was important for the authors to conduct a new study (Sen et al., 2022). The authors assumed measures were taken to prevent acute myocardial infarctions pre-procedure with patients. They were unsure if the measures taken were satisfactory or had any effect on patient outcomes.

Deficit/Conclusion

The data collected from this article is significant, and the authors' conclusion is sound (Sen et al., 2022). By stating that preoperative measures with ophthalmologic surgeries to reduce acute myocardial infarctions are satisfactory, no protocol or procedure needs to be changed. If nurses fail to accept this conclusion, future studies can be performed. Many variables are involved in the events of a patient having a myocardial infarction. However, ophthalmologic surgeries are not the cause.

Conclusion

In conclusion, the literature review provides valuable insights into the relationship between cardiovascular disorders and management. The first article highlights the elevated risk of cardiovascular disease among sexual minorities, emphasizing the need for early screening and comprehensive healthcare initiatives (Sherman et al., 2022). The second article focuses on the association between education, feedback on hypertension management, and mortality rates (Brunström et al., 2022). Although education did not correlate with a decrease in cardiovascular events, it significantly reduced mortality rates. The third article concludes that ophthalmologic procedures generally have a reduced short-term risk of acute myocardial infarctions, suggesting that the perioperative measures taken to decrease the risk are satisfactory (Sen et al., 2022). Overall, these findings have implications for healthcare professionals, emphasizing the importance of early screenings, education, and appropriate interventions to reduce the burden of cardiovascular disorders. Nurses have to educate, care for, and assess their patients. All three research outcomes prove the patient outcome is better when nurses are educated with evidence-based research. Healthcare as a whole is changing every year as new research and protocols change. Nurses must learn to adapt to the change for the patient's benefit.

References

Brunström, M., Ng, N., Dahlström, J., Lindholm, L. H., Norberg, M., Nyström, L., Weinehall, L., & Carlberg, B. (2022). Association of education and feedback on hypertension management with risk for stroke and cardiovascular disease. *Blood Pressure*, *31*(1), 31– 39. https://doi.org/10.1080/08037051.2022.2041393

Sen, A., Gémes, K., Stålhammar, G., Svensen, C., Tornvall, P., Jonsson, M., Varmdal, T., Endreseth, B. H., Janszky, I., & Möller, J. (2022). Risk for acute myocardial infarction after ophthalmologic procedures. Annals of Internal Medicine, 175(5), 628–633. https://doi.org/10.7326/M20-6618

Sherman, J., Dyar, C., McDaniel, J., Funderburg, N. T., Rose, K. M., Gorr, M., & Morgan, E. (2022). Sexual minorities are at elevated risk of cardiovascular disease from a younger age than heterosexuals. *Journal of Behavioral Medicine*, *45*(4), 571–579. https://doi.org/10.1007/s10865-021-00269-z