Coronary Heart Disease: A Qualitative and Quantitative Approach

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Qualitative Study

Coronary heart disease is the most common type of heart disease and remains the leading cause of death globally. There is no quick fix for patients with CHD. When treating CHD, a multifactorial approach has been shown to be beneficial for the patient. A patient's socioeconomic background significantly affects the prognosis of this disease. Patients that have a low socioeconomic status are subjected to disadvantages when treated for CHD. This can lead to an increased risk of mortality. Studies have shown a significant difference in how patients are treated based on socioeconomic differences.(The authors do not say "based on". This is not what is shown in the studies they refer to) It is believed(studies suggest) that health literacy and communication via physician and patient are strongly associated with socioeconomic disparities. The purpose of this qualitative research is to better understand the patient's view of their healthcare interactions.(This is not what the authors say: "identify socioeconomic differences in the patient's perspective and their experiences with the treatment pathway for CHD in all sectors from therapy to aftercare." Or " analyse socioeconomic differences in patients' experiences along the treatment pathway for coronary heart disease") It is also imperative to identify the factors that lead to these inequalities in healthcare.

The methods for this research included a longitudinal qualitative study of elderly patients with CHD to examine the socioeconomic differences regarding access, utilization, and quality of treatment. A purposive sampling strategy was used to select the patients in addition to being between the age of 60-80. Patients also had to have a primary or secondary diagnosis of stable angina pectoris, ACS(acute coronary syndrome. Always describe the 1st time you use initials), or cardiac arrhythmia. Participants were excluded from this study if there was a significant language barrier.

The results of this qualitative study were based on transcripts obtained from 58 semi-structured interviews (41 baselines and 17 follow-ups) on a total of 41 patients. Table 1 compared CHD to the SES of these patients, both male and female. In total, CHD had a greater manifestation amongst patients with a lower SES compared to patients with a higher SES (23:18).(this interpretation is wrong) The number of males within the higher-SES population (16) had a greater impact on CHD compared to(what do you mean by "greater impact on CHD"?) males within the lower-SES population (10). Females within the low-SES population (13) had a greater impact compared to females within the higher-SES population (2).

Overall, the number of patients diagnosed with CHD (20) for up to 1 year was higher for patients (both male and female) within the lower-SES population compared to those within the higher-SES population (7). For 21 patients who were diagnosed with CHD longer than 1 year ago, the amount was lower (10) for patients within the lower SES compared to 11 patients within the higher-SES population.(These interpretation are not correct. You cannot compare simply like that, without adjusting by percentage) The overall mean age for these patients was relatively equal (69.7) for low and high-SES populations. All of the participants in this study were publicly insured. Out of these 41 participants, 13 were diagnosed with the one-vessel disease, 11 with the two-vessel disease, and 17 with the three-vessel disease.

Patients with a higher SES were more knowledgeable about treatments for CHD compared to patients with a lower SES. When it came to illness perception, patients with a lower SES were more focused on symptom improvement and survival; they were more inclined to delegate the responsibility of their care to the healthcare team instead of taking control over their health independently. It is a fact that patients with a lower SES are generally provided with less information pertaining to their healthcare, this can explain why they're more inclined to depend

on healthcare providers to manage their medical care and treatments.(This is not what the article says. “not perceiving a need to obtain information even when lacking information, being less involved in decision-making, relying on physicians to coordinate care…”)

Patients with a higher SES independently prioritized physical performance and management of their disease. Patients within a higher SES are more involved with participating in the medical decision-making process after exploring methods on their own to treat CHD. Lower-SES patients only make themselves responsible for agreeing or disagreeing with recommendations made by their healthcare providers. This study mainly characterized SES based on education and occupation.

Data was not collected based on income due to it being a sensitive and personal issue, especially for longitudinal studies, and on the fact that income is not an accurate indicator for the older population whose SES is affected by retirement and difficulties surrounding the collection of reliable information. The study concludes by acknowledging that the empowerment of patient-provider communication is the key to reducing inequalities within SES. By increasing knowledge of CHD treatments, patients will have a higher understanding of this disease, therefore promoting the assumption of responsibility for treatments and allowing engagement and utilization of available resources.

When appraising this study we found that the author's research was clear and informative. The qualitative method used for this trial had an inductive approach when comparing socioeconomic statuses and their correlation to the treatment and management of CHD. We agree with the fact that the study reached its goal of providing meaning to this research in addition to using the appropriate processes for evaluation. The data analysis focused more on the

evaluation of patients' perceptions about life factors and personal characteristics that related to the participants of different socioeconomic backgrounds, and how these characteristics dictated the way in which they managed CHD. Overall the study was successful in providing insight into how patients with different socioeconomic backgrounds deal with and manage CHD. We were able to understand different points of view and factors that affect the way in which these patients are able to manage and treat their diagnoses. (What about the themes derived from the study?)

Quantitative Study

This research is important because heart disease is the leading cause of mortality, being responsible for ⅓ of deaths in the United States. According to Wang et al., 2023, about 697,000 people died from heart disease in 2020. Not only is there a mortality burden, but there is also an uneconomical burden in America. Each year from 2017 to 2018, heart disease was estimated to cost the US about $220 billion. The biggest issue in America is the lack of prevention of heart disease. Prevention and awareness of critical risk factors of heart disease can not only lower the economic constraint but also decrease mortality rates. The study was done to see what kinds of dietary intake of major types of fatty acids would lead to heart disease mortality in a general adult cohort. The American Heart Association recommends lowering dietary saturated fatty acid (SFA) intake. Substituting SFA with monosaturated (MUFAs) and polyunsaturated fatty acids (PUFAs) has been evaluated for lowering the risk of heart disease in over 60 years (Wang et al., 2023). Currently, this study investigates the association between fatty acid intake and heart disease mortality. A critique of this study is the uncertainty that substituting SFAs with MUFAs and PUFAs is effective in reducing the risk of mortality rates. There is no evidence suggesting that MUGAs are a protective factor against heart disease *(is not that there is no evidence, but*

that the results of the present study did not confirm it). Wang et al., 2023 suggest that a large cohort study with an extensive follow-up period is necessary for research.*(this is not correct)*

Methods used for this study included gathering data from 45,820 adults with a mean age of 45.7 years living in the United States. 1,541 participants had a prior diagnosis of myocardial infarction. The cohort attended the National Health and Nutrition Examination surveys from 1988 to 2014. Mortality rates were taken from the National Death Index records through December 31, 2015. Intake of SFAs, MUFAs, and PUFAs was recorded and compared with a mean follow-up of 11.6 years. Mortality rates were recorded during this time period.

After following 532,722 persons, 2,313 deaths were related to heart disease. There was no association between the consumption of SFAs and MUFAs with the risk of mortality. On the other hand, when there was a 5% caloric increase in intake of PUFAs, there was a 9% lower adjusted risk of heart disease-related mortality. This decrease in mortality was only witnessed in those who did not already suffer from heart disease.*(not heart disease in general, but MI)* This trend was also witnessed when the amount of measurement was converted to grams of fatty acids consumed a day.(information not in the paper) Overall, the results showed that consumption of SFAs and MUFAs was linked(associated) with increased LDL-C, HDL-C, TC, and decreased triglycerides. The inverse relationship was witnessed between total cholesterol and LDL-C when there was an increase in PUFAs in those without a prior history of myocardial infarction.(this sentence is not clear)

The discussion section of the study reviewed the results and restated the correlation found in the results section. This connection(which connection?) was attributed to the consumption of n6 fatty acids. They also brought up the fact that their findings contradict what the American Heart Association says about the consumption of SFAs. The idea that PUFAs may inhibit the

progression of atherosclerosis was also brought up. Wang, et al., then follows it up by stating that they did not check for the association between SFAs and non-fatal CHD events. This research project further assisted the idea that a reduction of saturated fat does not protect a person from death related to heart disease. Lastly, most of the limitations of the study were associated with their where they acquired their population.(this was one of the limitations)

When appraising the quantitative study done by Wang et al., their research was very comprehensive in the use of their subject population(what do you mean?) and the way they measured the information. Their population size was adequate, and the different(some) aspects that could have affected the study's data were taken into consideration. The researchers adjusted the parameters of what they were measuring to ensure that they accounted for(they adjusted for counfounding factors) numerous potential confounding variables. While following the research group for an extended period of time, Wang et al., accounted for possible lifestyle factors that could have come into play.(what do you mean? The information they give is that lifestyle changes overtime were not assessed) The researchers presented their findings in a clear and easy-to-understand way by providing charts and a diagram of the results. They assessed their potential limitations while also providing information on how the limitations would have had minimal effect on their findings. There were also substantial studies referenced in the research(in the report) to further validate the findings.(the other researches cited do not validate the findings) Studies like this are crucial because they can lead to further, more detailed testing for factors that can help prevent cardiovascular-related deaths. If specific behavioral changes can be implemented by individuals, it is vital to know what they are, so we can prevent more deaths related to heart disease.

PICO Research Question (You gave a discussion/conclusion, not a research question)

Education is the foundation for better health, as evidenced by our qualitative research. However, amongst adults with lower socioeconomic status, access to education can be limited due to various reasons such as financial constraints, lack of resources and support systems, and societal barriers. Concluding, intervention in the form of accessible education is crucial for these individuals to improve their cardiovascular health in correlation with a healthy diet can lower the risk of cardiovascular events. Populations studied in the qualitative study focus on patients belonging to lower socioeconomic classes who are at the highest risk of negative outcomes related to cardiovascular disease and heart failure versus the quantitative study which focuses on dietary fatty acids. Intervention to help control cardiovascular disease as evidenced by reducing saturated fatty acid intake and modestly increasing polyunsaturated fatty acids consumption is linked to a lower risk of future heart failure. The quantitative study indicates that increasing polyunsaturated fatty acid intake has a statistically significant impact in reducing the risk of future cardiovascular disease in patients who have not yet developed heart disease. Comparatively, the qualitative study seeks to explain why lower socioeconomic status patients so often experience poorer health outcomes, as opposed to the quantitative study's focus on the technical "how." Reduced access to education and resources impacts additional factors like proactivity, autonomy in care determination, and ability to access information; lower socioeconomic status patients also trend toward immediate symptom relief over preventative care and disease management. The outcome of both studies suggests that increasing awareness of the correlation between diet and heart disease, as well as packaging the information in a more easily understandable manner, could have a positive impact on long-term health for vulnerable patients.

Works Cited

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ITEM	FEEDBACK	GRADE – total: 72
SELECTION OF STUDIES		
Selected appropriate QN & QL studies----------10 points	Very interesting studies	10 points
SUMMARY		
• Summarized each study correctly----------35 points • Did not summarize important points----------20-34 points • Poor summary of the studies----------10-19 points • Summary not correct or very poor----------1-9 points	did not use IMRAD format QN study: . summary with some information/interpretation incorrect QL study: . Summarized but with some wrong information, and not summarizing important points	(78%/35 =27.5 points)
CRITIQUE/APPRAISAL		
• Critiqued/appraised each study effectively------25 points • Critique/appraisal not complete----------10-24 points • Critique/appraise not correct or very poor-------1-9 points	QN study . appraisals not all correct(some incorrect interpretation and conclusions)	78%/25 = 19.5
RESEARCH QUESTION		
• Raised a clear, answerable PICO question--------15 points • Question not clear/did not use PICO format---------1-14 points	No research question	
APA/ GRAMMAR/ SPELLING		
• No errors----------15 pts • 3 or more grammar/spelling errors----------minus 3 pts • 3 or more APA format errors ---------- minus 3 pts • Each sentence not clear, or confusing----------minus 1 pt	Only few mistakes in grammar/clarity and format	15 points