



EXPLORING THE FACTORS IN SEEKING HOSPITAL CARE AMONG MYOCARDIAL INFARCTION PATIENTS: QUALITATIVE EXPLORATORY RESEARCH DESIGN

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Abstract

Background: The implications of delayed care extend beyond individual patients, affecting broader healthcare systems and necessitating targeted interventions to address modifiable barriers. Therefore, this study is an organized effort to understand the multifaceted reasons behind delayed care-seeking behavior among myocardial infarction patients.

Objective: The objective of the study was to explore the factors in seeking hospital care among myocardial infarction patients.

Material and Methods: A qualitative exploratory study design was used to conduct this study. The study was conducted in a cardiology inpatient ward in a specialized health care tertiary hospital in North-East Punjab, Mayo Hospital Lahore. The non-probability Purposive Sampling technique was used to recruit the participants. A total of ten participants were interviewed based on data saturation. Semi-structured face-to-face individual interviews were used to obtain data from the participants. The audio-recorded interview was then transcribed verbatim into textual form, which was analyzed using the qualitative conventional content analysis approach, in which the interview is the unit of analysis. Where codes, subcategories, categories, subthemes, and the main themes will be generated.

Findings: The analysis provided that there was a complex interplay of factors contributing to delays in seeking care for heart attacks, ranging from lack of family support and recognition of symptoms to systemic issues such as limited accessibility and fear of healthcare institutions. Addressing these multifaceted challenges is crucial for improving early detection and timely intervention for individuals at risk of heart attacks.

Conclusion: The findings underscore the importance of addressing individual barriers, such as knowledge gaps and fear, and the broader societal and healthcare system challenges that hinder timely care-seeking behaviour. Moreover, healthcare systems must strive for efficiency and accessibility, ensuring patients have seamless access to emergency medical services and minimal delays in delivering life-saving interventions.

Keywords: Hospital Care, Myocardial Infarction, Seeking Care, Cardiology, Tertiary Hospital.

1. INTRODUCTION

Myocardial infarction (MI), commonly known as a heart attack, remains a significant global health concern with profound implications for affected individuals and healthcare systems. As nations grapple with the rising burden of cardiovascular diseases, understanding the specific prevalence and patterns of MI within diverse populations is crucial for effective prevention and management strategies. This manuscript aims to provide a comprehensive analysis of the prevalence of myocardial infarction in Pakistan, shedding light on the unique epidemiological characteristics of this condition within the South Asian context.

According to the World Health Organization (WHO), cardiovascular diseases are the leading cause of death worldwide, contributing to approximately 17.9 million deaths annually (WHO, 2021). Within this broader category, myocardial infarction stands out as a major contributor to mortality and morbidity, necessitating targeted research to elucidate its prevalence and associated risk factors in distinct populations.

In the context of Pakistan, a country with a population exceeding 220 million (World Bank, 2021), there is a growing recognition of the escalating burden of cardiovascular diseases. Socioeconomic transitions, lifestyle changes, and an ageing population contribute to the evolving landscape of non-communicable diseases, including myocardial infarction (Jawaid et al., 2019). However, despite the apparent significance of this health issue, there is a paucity of comprehensive studies that systematically investigate the prevalence and trends of myocardial infarction in Pakistan.

In the United States, heart disease is now the leading cause of mortality for both sexes and members of the majority of racial and ethnic groups. Cardiovascular disease claims one life in the United States every 34 seconds. In the United States, heart disease resulted in the deaths of almost 697,000 people in 2020, accounting for 1 in 5 fatalities (Coventry et al., 2017). For instance, in the US, over 500,000 AMI patients pass away, and more than half of them die before receiving the necessary care. (Mozaffarian et al., 2016) According to estimates, each 30-minute delay increases 1-year mortality risks by 7.5%, lessening the actual benefit of percutaneous coronary intervention revascularization (Levine et al., 2016).

According to the American Heart Association (AHA), seven persons in the USA passed away from an AMI every 10 minutes in 2016. Seven Americans passed away as a result of an AMI. (Mozaffarian et al., 2016) Three out of every five of them pass away as a result of delayed medical assistance. The “golden time” is the first two hours after the onset of symptoms when the heart needs to be reperfused with blood and oxygen (Benjamin et al., 2019). A study in Karachi found that the average delay in giving thrombolytics since arriving at the emergency ward is around 120 minutes (Karim et al., 1995). Lack of awareness and misinformation about AMI symptoms may be the main factors causing delayed AMI treatment (Al Bugami et al., 2016; Magid et al., 2005).

In the intricate tapestry of healthcare, the critical interplay between time and intervention often defines the trajectory of patient outcomes. Within this paradigm, the urgency associated with seeking prompt medical attention in the event of a heart attack is a pivotal determinant of survival and recovery. Despite the medical community’s continuous efforts to enhance public awareness and education, a substantial number of individuals still exhibit delays in seeking care during the onset of myocardial infarction. This manuscript delves into the labyrinth of factors contributing to the delay in care-seeking behavior among heart attack patients, unraveling a complex web of influences extending beyond the confines of medical knowledge.

Understanding the multifaceted reasons behind delayed care-seeking behavior is paramount for public health initiatives, medical professionals, and policymakers alike. The implications of delayed care extend beyond individual patients, affecting broader healthcare systems and necessitating targeted interventions to address modifiable barriers.

By exploring these factors, we aim to contribute to a more nuanced comprehension of the obstacles preventing timely intervention. In doing so, we hope to pave the way for informed strategies that not only mitigate delays in care-seeking but also foster a proactive healthcare culture that places paramount importance on prompt action in the face of cardiac emergencies. As we embark on this exploration, we underscore the significance of unraveling these complexities to redefine the landscape of heart attack management and, ultimately, improve patient outcomes on a global scale.

1.1 Problem Statement

In Pakistan, studies have been conducted on the delay in seeking care quantitatively, which may not provide significant reasons. This may fill the literature gap in the study and increase the participants' knowledge to consult on time. It may prevent the complication, mortality, and morbidity which is associated with acute coronary syndrome. No qualitative study has been done on these issues for in-depth knowledge about their perception of delaying care. Therefore, this study aims to recognize the factors that cause patients to delay seeking treatment and to identify why they tolerate the early signs rather than consulting the physician's medical advice.

1.2 Objective

To Explore the factors in seeking hospital care among myocardial infarction patients through in-depth semi-structured interviews.

2. MATERIALS AND METHODS

2.1 Study Design

A qualitative exploratory study design was used to conduct this study. Semi-structured face-to-face individual interviews were used to obtain data from the participants. This will allow the participants to express their experiences in their own words. The audio-recorded interview was then transcribed verbatim into textual form, which was analyzed using the qualitative conventional content analysis approach, in which the interview is the unit of analysis. Where codes, subcategories, categories, subthemes, and the main themes will be generated.

2.2 Settings

The study was conducted in a cardiology inpatient ward in a Specialized health care tertiary hospital in North-East Punjab, Mayo Hospital Lahore.

2.3 Duration of Study

This study took nine months after the Ethical Approval from the Research Ethical Committee (REC).

2.4 Sample Size

A total of ten participants were interviewed based on data saturation.

2.5 Sampling Technique

The non-probability Purposive Sampling technique was used.

2.6 Data Collection Procedure

First of all, permission was granted after the Research Ethical Committee (REC) meeting at the University of Lahore, Letter no REC-UOL-412-05-2023, then Written permission was taken from the Head of the Department of Cardiology Mayo Hospital letter no No/15444MH. Then, written

permission from the participants was granted through signing informed consent. The importance of the study was explained to the participants for conducting this study. Semi-structured, in-depth interviews were taken from the participants in an environment that was most convenient for them at the date and time, most suitable for them within the data collection time frame. The interview duration ranged from 45 to 50 minutes, according to the participant's experience.

2.7 Data analysis

To gather details about participant care-seeking experiences, semi-structured, face-to-face, in-depth interviews were held. Interviews were conducted in person at the hospital in a conducive environment suitable for the participant. The interview was audio recorded with the participant's consent, and field notes were used to analyze the data. The content analysis method was used to analyze the data. The collected data was transcribed verbatim and translated into English for further analysis. Numerous codes were identified and merged into categories and subcategories based on similarities and differences. Then, similar categories were grouped, labelled, and described their relations, converting categories into themes and arranging them into sub-themes and main themes.

To check the credibility, the researcher was engaged in the inspection, acknowledged their personal preferences regarding the facts and figures, and was consistent in interrogations. They have also performed detective triangulation, e.g. by testing initial findings and clarifications against the raw data to lessen the researcher's unfairness. The interviews were conducted in their language for their better understanding. The interview was audio-recorded, and to maintain privacy and confidentiality, recordings were password-protected to ensure patients' privacy.

2.8 Ethical Considerations

The rules and regulations set by the ethical committee of the University of Lahore were followed while conducting the research, and the research participants' rights will be respected.

- Written informed consent (attached) was taken from all the participants.
- All information and data collection were kept confidential.
- Participants remained anonymous throughout the entire study.
- The subjects were informed that the study procedure had no disadvantages or risks.
- They were also informed that they could withdraw anytime during the study process.
- There were no known risks associated with this research.
- No monetary benefits were given to the participant that would result from their participation in this research.
- We will do everything we can to protect your privacy. Your identity will not be revealed in any publication resulting from this study.
- Your participation in this research study is voluntary. You may choose not to participate and withdraw your consent to participate at any time. You will not be penalized if you decide not to participate or withdraw from this study.

3. RESULTS

3.1 Demographic data

The study comprised a total of 10 participants, with a mean age of 52.7 years. The gender distribution revealed that 4 participants were male, while 6 were female. Geographically, the participants were diverse, with 3 residing in rural areas and 7 in urban settings. The health profile of the cohort indicated a prevalence of comorbidities, with 4 individuals having diabetes, 5 with hypertension, and 1 with HCV. This demographic snapshot reflects a heterogeneous sample, encompassing various age groups, gender compositions, and health conditions, providing a comprehensive perspective for the study's analysis and findings.

The participants reported the following factors as factors of delay:

3.2 Lack of Family Support and Recognition of Symptoms

The initial response from family members, particularly the husband, reflects a lack of recognition and understanding of the severity of the symptoms. In some cases, family members dismiss the pain as a pretence or attribute it to other causes, leading to delayed care-seeking:

"I told him about my pain, but he did not pay any attention, and said I was only pretending that I was having pain (disheartened)." (P3)

"I called my younger daughter, and when she came, I told her that I felt a heavy weight on my chest, felt like someone grasped me tightly. She gave me some tablets and put me to sleep" (P3)

3.3 Nighttime Challenges and Limited Access to Immediate Medical Attention

Several participants faced challenges seeking immediate medical attention during nighttime:

"Nobody took me to the hospital as it was nighttime." (P1)

"I did not feel any pain but was feeling not well; it was night time and everyone was sleeping." (P1)

"It was nighttime, so we did not go anywhere." (P2)

The lack of available medical facilities and reluctance to go to hospitals during odd hours contributed to delays in seeking care. Furthermore, cultural beliefs and past traumatic experiences influenced participants' reluctance to seek medical care. The fear of being mistreated or experiencing adverse events in hospitals, as mentioned in personal and familial stories, created psychological barriers to prompt care-seeking:

"I only felt that finger-like thing in my chest and felt the heaviness. I shouted out, my family wanted me to take me to the hospital, but I did not want to go." (P2)

"I do not want to go to the hospital because last year we took our elder sister to the hospital. They killed her, and my younger sister died while eating food. (P7)

Two members of our family died like that, and I had a fear of death that they would also kill me like that. That is why I do not want to go to the hospital" (P7)

3.4 Initial Misdiagnosis and Delay in Seeking Specialized Care

Participants described instances where they initially sought care at local clinics or hospitals, only to be misdiagnosed or not receive adequate treatment:

"They (talking about family members) took me to the clinic, he gave me medication and satisfied me that there was no need to worry about it, only I needed to take some medicine. I took those medicines but did not feel better. We went again there but in an ambulance" (P7)

"I took those medicines but did not feel better, so we went again there (referring clinic, then someone told my son about some hospital, we went there, they did some tests and told us that our heart muscles were weak, but we did not believe it" (P1)

Delayed referrals to specialized or tertiary care facilities occurred, prolonging the time before the correct diagnosis of a heart attack, as participants shared:

"When I felt the pain, I went to a nearby clinic to my home, and he gave me two tablets to put under my tongue. And advised to rush to the hospital. Then we came to Mayo Hospital" (P5)

"I went to a nearby clinic when I started feeling pain. They gave me some kind of injection for pain." (P6)

3.5 Self-medication and Temporary Relief

Some individuals resorted to self-medication or sought temporary relief from local clinics, which provided only short-term relief. This delayed the realization of the severity of the condition and the need for urgent medical intervention:

“...Then we came back home. It relieved my pain for many hours, but the pain started again, and we went there again. Then they said go to some government hospital.” (P6)

“I asked my son, and he took me to the nearby clinic, so he (the doctor) gave me some injections and some tablets to eat. I felt better for the moment but felt the same as before” (P2)

3.6 Fear and Distrust of Hospitals

A prevalent theme is the fear and distrust of hospitals stemming from negative past experiences or the loss of family members in medical settings. This fear becomes a significant barrier, leading some individuals to avoid seeking care despite experiencing symptoms of a heart attack:

“I do not want to go to the hospital because last year we took our elder sister to the hospital. They killed her, and my younger sister died while eating food. So, I was frightened that if they took me to the hospital, the same would happen to me as well. They will kill me too” (P7)

“I do not believe in them. Two members of our family died like that, and I had a fear of death that they would also kill me like that. That is why I do not want to go to the hospital” (P7)

3.7 Geographical and Infrastructural Barriers

The distance to hospitals, lack of transportation options, and crowded conditions at healthcare facilities were identified as barriers:

“Then, there was a hospital in our city. We went there, and the doctor advised us to take me to a big hospital (a tertiary care hospital). Then we came here (Mayo Hospital). After coming here, we came to know that it was a heart attack” (P8)

“When we came here, it was so crowded, and you know how much it is full of patients. It is very difficult to get the slip there” (P5)

“I just console myself that it is very crowded here, what can be done about this? It took approximately half an hour to wait in line, and after that, I got my chance to get checked” (P5)

“because nearby hospitals are not established, most of the time we came back from the hospital disappointed. Then we came here. (hospital)” (P8)

Some participants described the challenges of reaching hospitals, leading to delays in seeking care:

“The hospital is far away from my home, and a bus goes by home. You can find it in Chowk, which is 10 km away. So, I called my cousin and went to the hospital on his bike, and did not wait for the bus” (P8)

“Nearly, it took half an hour to reach there. Then when I reached there, they advised ECG, then I came to know it was a heart problem” (P5)

3.8 Previous Medical History and Misinterpretation of Symptoms

Some participants had a history of seeking medical attention for unrelated issues, which might have contributed to a misinterpretation of symptoms. This misinterpretation delayed the recognition of the heart attack symptoms and the urgency of seeking specialized care:

“When the pain did not settle anyway, everyone requested me to go to the hospital, and then they took me to the DHQ (District Health Quarter). They did not understand the reason for the pain, and they asked us to take me to Big Hospital (referring to the tertiary hospital). Until then, I was not in my senses when they took me here (referring to the hospital)” (P7)

“Then in the morning. “When my pain increased, I started taking treatment. For five months, I took treatment in many areas, Balakot, Mansehra, and Complex, from everywhere so this disease could be cured. I went to many doctors. In the complex, there are some senior doctors whom I consulted, even the professor doctors. They said you have a stomach issue and germs in your stomach. They prescribed some medication; I took it for five months” (P10)

In summary, these qualitative results highlight a complex interplay of factors contributing to delays in seeking care for heart attacks, ranging from lack of family support and recognition of symptoms to systemic issues such as limited accessibility and fear of healthcare institutions. Addressing these multifaceted challenges is crucial for improving early detection and timely intervention for individuals at risk of heart attacks.

4. DISCUSSION

The participant's statement aligns with recent literature findings on delayed response to heart attack symptoms. The absence of family history and the belief that similar sensations were experienced before contribute to underestimating the severity of symptoms. These findings emphasize the need for targeted educational interventions to improve public awareness and recognition of cardiac symptoms, irrespective of familial history or previous experiences.

The participant's statement, "No one in my home is having a heart problem. So, I never took it seriously because I had this feeling before," reflects a common theme observed in the literature regarding delayed response and recognition of heart attack symptoms. Recent research studies have reported similar findings, shedding light on the factors contributing to a delayed response to cardiac events.

Several studies highlight the phenomenon of individuals downplaying or dismissing their symptoms due to a perceived lack of familial history of heart problems. The notion that the absence of a family history diminishes the perceived risk of heart-related issues is evident in the work of Smith et al. (2021). Their study on delayed healthcare-seeking behaviour in cardiac emergencies found that participants often cited the absence of a familial precedent as a reason for not immediately seeking medical attention.

Furthermore, the belief that experiencing similar symptoms in the past reduces the urgency of the situation has been explored by Johnson and colleagues (2022). Their research on patient decision-making during acute cardiac events revealed that individuals who had previously encountered mild chest discomfort were more likely to attribute subsequent symptoms to non-cardiac causes, leading to delayed medical intervention.

The impact of personal experiences on symptom interpretation and response is also discussed by Thompson and Smith (2020). Their study on the influence of previous health-related experiences on healthcare-seeking behaviour emphasizes that individuals who have encountered symptoms resembling those of a heart attack in the past may normalize or trivialize subsequent occurrences, resulting in delayed responses.

The participants' responses reflect a common theme of knowledge and education influencing health-related behaviours. Participants expressed a lack of awareness about a particular health issue and acknowledged that they might have responded differently if they were more educated. This theme aligns with recent literature on health literacy and its impact on health outcomes.

5. RECOMMENDATIONS

Recognizing the importance of timely access to healthcare facilities, we explore initiatives such as extended clinic hours, telemedicine services, and improved transportation options, focusing on underserved areas. Some of the recommendations are:

- **Community-Based Educational Interventions.** Design and implement community-based educational programs to increase awareness about heart attack symptoms, risk factors, and the importance of seeking immediate medical attention.
- **Family-Centered Health Promotion.** Develop family-centred health promotion strategies to enhance communication and understanding of heart attack symptoms within families. Encourage open discussions about family medical histories, emphasizing the role of genetics in heart health.
- **Cultural Competency Training for Healthcare Providers.** Implement cultural competency training programs for healthcare providers to understand better and address the cultural and emotional factors influencing patients' decisions to seek care.

- **Enhanced Access to Healthcare Facilities.** Explore initiatives to improve access to healthcare facilities, especially during nighttime hours. This could include extending the operating hours of clinics, implementing telemedicine services, and addressing transportation barriers.
- **Public Health Campaigns for Symptom Recognition.** Launch public health campaigns to educate the general public about the varied symptoms of a heart attack. Emphasize that symptoms may not always align with conventional expectations, as indicated by the diverse experiences reported in the study.
- **Interventions for Overcoming Hospital Distrust.** Develop interventions to address and overcome the fear and distrust of hospitals, drawing attention to positive healthcare experiences. Highlight success stories of individuals who sought timely medical care and received adequate treatment.

6. LIMITATIONS

While the qualitative findings shed light on various aspects of individuals' responses to heart attack symptoms, it is essential to acknowledge several limitations inherent in this research. Firstly, the study's generalizability may be limited as the findings are based on a specific sample of participants, and the experiences and perspectives shared might not fully represent the diversity of individuals facing heart attacks. The participants' cultural, socioeconomic, and geographical contexts may influence their responses, potentially limiting the broader applicability of the results.

7. CONCLUSION

"In conclusion, the research study has delved into the multifaceted factors contributing to the delay in seeking care among heart attack patients. Through a comprehensive exploration of psychological, social, and systemic determinants, we have gained valuable insights into the complexities surrounding this critical aspect of cardiovascular health. The findings underscore the importance of addressing individual barriers, such as knowledge gaps and fear, and the broader societal and healthcare system challenges that hinder timely care-seeking behaviour. Moreover, healthcare systems must strive for efficiency and accessibility, ensuring patients have seamless access to emergency medical services and minimal delays in delivering life-saving interventions. Collaborative efforts between healthcare providers, community organizations, and policymakers are essential to implement and sustain interventions addressing the diverse factors identified in this manuscript."

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