

## Challenges experienced by post coronary artery bypass grafting patients: A qualitative study from Peshawar, Khyber Pakhtunkhwa, Pakistan

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### Abstract

**Objective:** To explore the experiences of post-coronary artery bypass grafting patients in Pakistan.

**Method:** The qualitative, descriptive, phenomenological study was conducted at the Lady Reading Hospital, Peshawar, Pakistan, from May 2018 to April 2019, and comprised patients having undergone coronary artery bypass grafting. Data was collected through semi-structured interviews that included probing questions. Codes, categories and themes were framed through extensive thematic analysis.

**Results:** Of the 14 patients, 11 (78.6%) were male with a mean age of 50.81±5.61 years and 3 (21.4%) were female with a mean age of 63.33±6.02 years. Four main themes were generated; challenges, perceptions about coronary artery bypass grafting, coping with the challenges, and perceptions about nurses and doctors. The subjects were of the view that they were affected with certain types of physical, psychological and financial challenges. These encounters affected the patients post-procedure in almost every aspect of their lives and made it difficult for them to carry out activities on a daily basis. Further, coping strategies varied from individual to individual.

**Conclusion:** Patients after coronary artery bypass grafting were found to encounter issues related to physical, psychological and social spheres. Care for such patients must be planned in a way to avoid such challenges.

**Keywords:** Patients, CABG, Challenges, Experiences, Nurses.

(JPMA 71: 1827; 2021) DOI: <https://doi.org/10.47391/JPMA.395>

### Introduction

Coronary artery diseases prevail around the world and it has been estimated that around 17.3 million people die every year that constitutes 31% of all deaths across the globe.<sup>1,2</sup> Approximately 80% of these deaths occur in low-income countries.<sup>3</sup> Certain factors, including sedentary lifestyle, smoking, obesity, family history and other comorbid illnesses, have been identified as causes that lead to increased mortality among patients diagnosed with cardiovascular diseases.<sup>4</sup>

Coronary artery diseases affect almost every aspect of human life, ranging from pain during walking to fear of death during sleep.<sup>5</sup> To improve quality of life among such patients, certain means and procedures are practised in current healthcare settings around the world. Patients are treated with cardiac protective drugs, but some patients require special invasive interventions.<sup>6</sup> One of these interventions is the coronary artery bypass grafting (CABG) to treat the patients and to improve their prognosis. CABG was introduced by a Russian surgeon in 1964 which showed improved health status of the

patients compared to medical therapy.<sup>7</sup>

Statistics shows that around 100 million CABG procedures are performed worldwide annually.<sup>8</sup> The scenario is similar in Pakistan in terms of increasing trend, with around 20,000 CABG procedures having been performed during 2016.<sup>9</sup>

Apart from having benefits, CABG is also a procedure that caused certain experiences and challenges for the patients.<sup>10</sup> Post-CABG patients come across physical and psychological problems. Oedema, swelling, pleural effusion, pus formation in the sternum, pain after surgery, muscle spasm, body ache, irregular heart rhythm, difficulty in breathing and limited mobilisation are some of the physical aspects that need to be taken care of in order to maintain the quality of life. Similarly, patients perceive some psychological symptoms, including stress, anxiety, lack of self-confidence, lack of control, more dependency on others, fear of death after going through CABG procedure etc.<sup>11</sup> Culture varies around the world and with it change the experiences and challenges. However, in under-developed countries, like Pakistan, patients experience more challenges and problems related to the CABG procedure.<sup>12</sup>

The current study was planned to explore the challenges of post-CABG patients in Pakistan.

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### Subjects and Methods

The qualitative, descriptive, phenomenological study was conducted at the Lady Reading Hospital, Peshawar, Pakistan, from May 2018 to April 2019. After approval from the institutional ethics review committee and permission from the relevant department head, the sample was raised using non-probability purposive sampling technique from the out-patients department (OPD) of Cardiac Surgery. Those included were patients aged 40-70 years of either gender who had had CABG procedure at least three months earlier. Those excluded were patients not willing to participate or had some terminal disease.

Data was collected after taking informed consent from the subjects using semi-structured interviews that had probing questions. Each interview lasted 30-60 minutes. Non-verbal expressions and responses were noted simultaneously during the interview. The interviews were properly audio-recorded and were analysed and interpreted for drawing codes, categories and themes afterward.

Data was analysed thematically using Braun and Clarke 6-step approach.<sup>13</sup> The analysed data and transcriptions were rechecked repeatedly to omit errors. Meanings and interpretations were streamlined as per the phenomena, experiences and words of the participants. Codes and categories were developed to generate themes.

### Results

Of the 14 patients, 11(78.6%) were male with a mean age of 50.81±5.81 years and 3(21.4%) were female with a mean age of 63.33±6.02 years. Four major themes were generated on the basis of data, categories and codes: challenges, perceptions about the CABG procedure, coping with challenges, and perceptions about nurses and doctors (Figure).

In the first theme, various challenges were reported during the in-depth interviews. These challenges formed certain categories given below:

The first category was Physical Problems. The participants were found exposed to certain physical ailments, including pain, sleeping disturbance, difficulty in eating, breathing, mobility and infection. As one of the participant verbalised: "... the difficulty that I had in the past is still the same now and I feel pain in every part of my body. I have severe pain specifically at night..."

Some of the participants expressed that they were having problems in terms of sleeping and eating patterns and habits. They wanted to sleep, but were deprived of it while some of them had an urge for some spicy foods in their meals as of getting diverting from the normal healthy diet. One of the participants said: "... I cannot get proper sleep and could not eat regularly and properly... I sometimes ask for spicy and fat rich food ... I eat a little, and

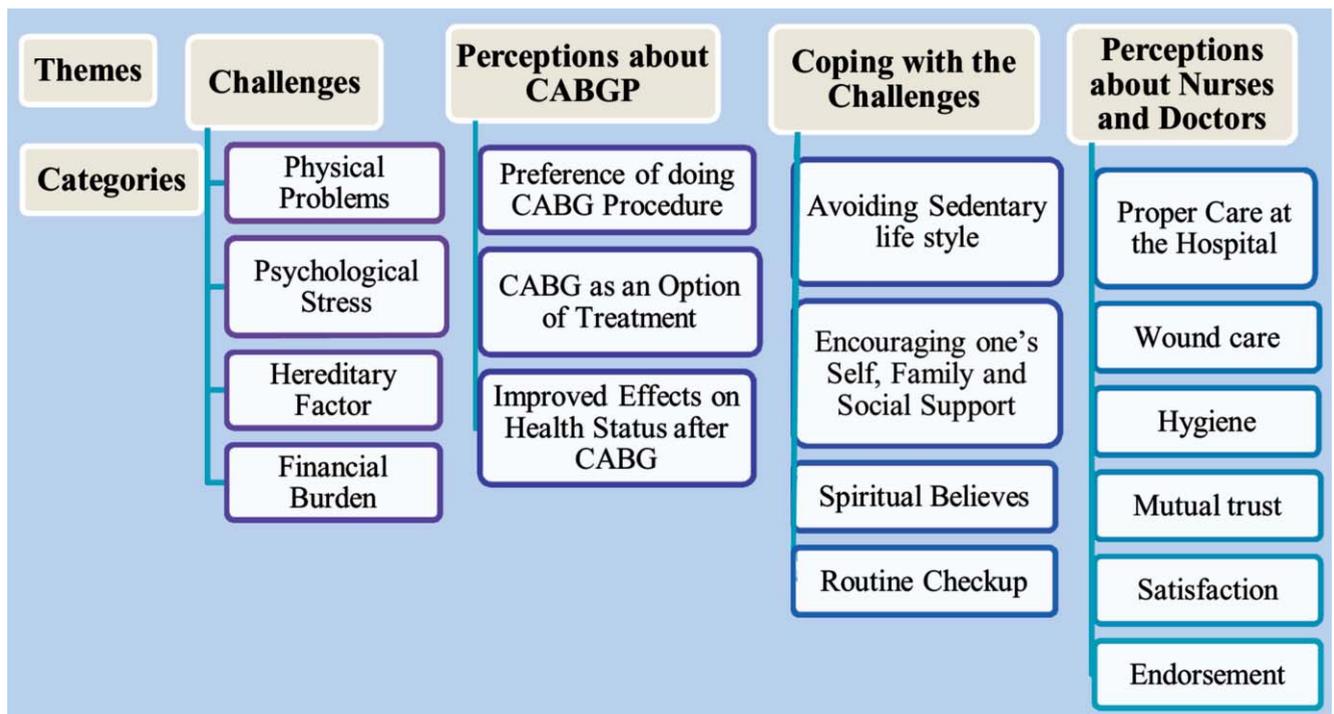


Figure: Thematic analysis.

*sometime take more than required ... and this is all about the situation regarding my diet pattern."*

Some participants were having difficulty in breathing. As expressed by one of the patients: *"I experience shortness of breath sometimes in doing my routine activities."* Similarly, some participants said: *"Whenever we go to the mosque for prayer, we get fall and having pain in legs while having movements..."* One of the participants expressed his concern about infections: *"The stitches after surgery were creating problem for a long time (about one year, one-and-a-half year... there was pus and blood-type water coming from it..."* The second category was Psychological Stress, which was reported by the participants, such as fear of death leading to tension, weeping and affecting daily routine. A participant expressed: *"... I was weeping that I was going to die while getting moved to the operation room. I also perceived that this procedure could affect my life and I would not be able to gain normal-life activities again... Further, the people discouraged me that don't go for this operation, but I did it because I didn't have any other option to live"*.

The third category was Hereditary Factor Involvement as many of the participants knew that they had problems of coronary heart disease, heart attack, hypertension and diabetes in their families. One of the participants reflected: *"... this disease was running in our family as two of my brothers had died of heart attack. My elder brother also had a heart attack, but he recovered with treatment"*.

The last category under the theme of challenges, was Financial Burden. As CABG is considered one of the expensive procedures and for the majority of the participants it was unaffordable, therefore, almost all of them showed concerns about the expenses related to the procedure. Further, after CABG, some patients expressed that they had weakness due to certain limitations in performing their work, duty and jobs. As a participant expressed: *"... I feel that I am unable to do enough effort during job which I used to do before the bypass operation ..."*

The second theme related to patients' perceptions about CABG procedure. The perceptions were further categorised as below:

The first category was Preference of doing CABG Procedure. Almost all participants were in favour of the procedure as they thought it was a matter of life and death for them. They emphasised that CABG should be done as it was the only proper treatment to survive. *"It is a matter of life and death for us and we would also advise to others to undergo this procedure for having better outcomes*

*in their health,"* said a participant,

The second category was CABG as an Option of Treatment.

Majority participants expressed concern that CABG is the only available treatment modality in the country. One participant expressed: *"I did not have any other option to treat my problem, therefore I went through this procedure. However, it was a successful procedure and I feel healthier. I further experienced improvement in my health status."*

The third category was Improved Effects on Health Status after CABG.

Many participants added that they got a new life and were feeling better. One participant expressed: *"... I am feeling better now to perform my activities of daily living without having any chest pain, shortness of breath, and other relevant physical problems."* Further, one patient expressed: *"I am completely better in my health status and feel that this procedure had positive and successful effects on my health as I can perform my routine activities now without certain constraints."*

The third theme related to coping with the challenges. Patients reported better capacity to sustain their normal lives post-procedure. Some of the parameters identified to be taken care of to cope up with the challenges associated with CABG are given below:

The first category was Avoiding Sedentary Lifestyle. One participant stated: *"I take care of my health after the CABG procedure as it was a difficult experience and I don't want to take risks again to experience this problem again. Therefore, I have planned to keep myself active in my life."*

The second category under the theme was Encouraging One's Self, Family and Social Support. Majority of the participants said that the presence of family during the crucial procedure played a vital role in their decision-making process. One participant said: *"My wife encouraged me a lot in every sphere to plan my treatment that gave me the strength to cope up with my illness."*

The third category was Spiritual Beliefs. Majority of the participants had strong religious beliefs under any circumstances. One participant said: *"... life and death is granted by Allah (God) only. Just pray to Allah (God) ..."*

The final category under this theme was Routine Check-up. One participant said: *"I think every patient after bypass operation should come and consult the doctors in hospital for better treatment and rehabilitation ... I came for my check-up now ... That is what I coped and supported myself ..."*

The final theme in the analysis related to perceptions about nurses and doctors in terms of patient management, and there were six categories under the theme.

The first category was Proper Care at Hospital. Most participants said they went through a proper treatment process with a good and supportive environment where everybody cooperated, which ensured a speedy recovery. One participant said: *"Nurses and doctors maintained full cooperation ... even the security guards helped us while getting to the doctors..."*

The second category was Wound Care. *"... The infected stitches were removed and they (the nurses) cleaned the wound on a regular basis with extreme care."*

Another category was Hygiene. One participant said: *"... The nurses were cleaning the wound and doing dressing ... the environment was kept clean just like a private hospital ... even I was thinking that is this a government hospital where usually patients are neglected due to huge flow of patients?"*

The next category was Mutual Trust. Majority of the participants said that patients should be good to the nurses and the doctors as they bring one towards life. A patient said: *"Nurses are just like my own kids ... I have never seen such caring individuals who completely changed my perceptions towards them..."*

Satisfaction was another theme voiced by the patients regarding nurses and doctors. One patient said: *"... doctors and nurses cared about me a lot, like my own children did, and I am completely satisfied with their duties..."*

The final category under the final theme was Endorsement. The participants' statements reflected this sentiment: *"... the current government is running the hospital system very well ..."* *"My sister was operated upon in this department and I found a huge difference of care between my sister's operation and my own surgery."*

## Discussion

The study found that post-CABG, patients experienced certain types of challenges which affected them in certain spheres. One study showed similar findings.<sup>11</sup>

The current study identified physical challenges as pain, poor mobility and eating habits, problem in sleeping, shortness of breath and infection. These findings were parallel to previous studies.<sup>14,15</sup>

Similarly, findings in terms of psychological challenges, like fear of death, hopelessness, anxiety, weeping, loneliness, hopelessness and powerlessness, have been

reported earlier as well.<sup>16,17</sup>

Some contrasting findings are also found in literature, like a study showing that CABG has both advantages and disadvantages on the quality of life of patients.<sup>18</sup> In addition, patients improved in a study post-CABG in terms of physical and psychological aspects.<sup>19</sup>

Financial burden was reported by patients in the current study. These findings were supported by literature.<sup>20-22</sup>

Almost all participants in the current study knew CABG was the only treatment modality available to survive in a better way with coronary artery disease. Previous studies support these findings.<sup>23</sup>

The strong spiritual beliefs noted by the current study were consistent with earlier findings.<sup>24</sup>

Support from family members, specifically relationship between spouses, was acknowledged by the participants in positive words in the current study, which is in line with existing literature.<sup>25</sup>

Participants in the current study were satisfied with nurses, doctors and the hospital environment, and endorsed the efforts being made for improvement in the health sector. Again, the findings were similar to those reported in contemporary literature.<sup>26,27</sup>

The current study, to our knowledge, is the first to explore CABG patients for their experiences and challenges in Peshawar. Contextual data was gathered related to the experiences of post-CABG patients and rigour was maintained by following standard protocols.

However, the current study has its limitations, as it was a single-centre study with a small sample size. Qualitative studies depend upon data saturation and in the current study, it occurred on the 14th post-CABG patient. While conducting interviews, it was observed that female patients were rare compared to the male because they do not agree to undergo an operating. Certain cultural sensitivities also kept the number of female participants low.

## Conclusion

CABG was found to be one of the difficult, expensive and challenging procedures that make the patients face certain physical, psychological and financial challenges. These challenges need to be addressed.

**Disclaimer:** None.

**Conflicts of Interest:** None.

**Source of Funding:** None.

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