

# An Exploration of Socio-Economic Problems Faced By Prosthetic Limb Amputees in Multan, Pakistan

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## ABSTRACT

Amputation is a surgical operation in which a portion of the body is removed such as an arm, foot, leg, hand or finger. Amputation can be performed on any portion of the body, from a tiny area to a big area. Two types of prosthesis limb are used after amputation upper limb prostheses and lower limb prostheses. After amputation, most people use prostheses to carry out their daily activities. This research explains how people use prostheses after amputation and what difficulties people have to go through after using the prostheses. Social, economic and psychological aspects also discussed in this research. The objective of this research is to explore the problems and challenges in income climate and personal characteristics. To find out the health care with prosthetic technology, rehabilitation and satisfaction with prostheses and to investigate the established need and resources for prosthesis limb usage also focused in this research. The universe for the following study was all the prosthetic limb amputees in Multan District. All the prosthetic limb amputees were the population of the study. 15 cases were selected to investigate the study. Non probability purposive sampling technique was used. To measure the socio economic problems faced by prosthetic limb amputees, researcher used the interview guide. As a result questions were asked from the respondents during face to face meeting. In all cases, most of the amputations are due to accidents, diabetes, gunshot and amputation of any part of the body in machinery while working in factories. Most people have lower limb amputation including above or below knee amputation. In mostly cases people of lower limb amputations have severe disability. People with amputation have to go through a lot of troubles and sufferings after having their limbs amputated and having their prostheses implanted. The lives of such people are going through troubles and physical pain. Due to which such people are suffering from a lot of mental stress. The government should provide free prostheses to these disabled people and also help them so that they can meet their needs.

## INTRODUCTION

Amputation is a surgical operation in which a portion of the body is removed. Amputation can be performed on any portion of the body, from a tiny area to a big area. Amputation is more prevalent in men than in women, and operation is more common in those over 60. Men are more likely than women to have amputations due to employment, sickness, or other factors. According to the World Health Organization, more than 5.6 million people died in accidents in 2011, and 1.3 million individuals had physical impairments. Amputation is one of the most common causes of lifelong disability, resulting in significant alterations in many aspects of people's lives and everyday activities. Amputations of the lower limbs account for 85-90 percent of all amputations, with amputations below the knee being the most frequent. In the long run, amputation produces physical, social, psychological, and environmental changes in a person. A person's self-esteem may suffer as a result of amputation. Sentiments and opinions about a person's shifting physique impact their body image as a dynamic change phenomenon (Rachmat et al., 2019).

Prosthetic rehabilitation and service delivery are highly challenging in developing countries, particularly in rural locations. Financial barriers, distance to medical centres, limited service availability, and poor public transportation were all mentioned as major roadblocks. The most of large rehabilitation centres and treatment services are located in urban regions, rendering them unavailable to rural residents. According to the World Health Organization, 0.5 percent of the population in developing countries requires prostheses. As a result 180,000 rehabilitation experts are needed to serve approximately 30 million patients. (Ennion and Johannesson 2018).

There are a variety of reasons why prosthesis is not used once it has been provided. Fear of falling, insufficient training in donning the prosthesis, and a lack of desire are some of the most commonly reported difficulties with the residual limb, prosthetic components, and associated limb and medical co morbidities. Breakage/loosening of sockets, ripped liners, breakage of foot/terminal device components, and aesthetic sleeve problems are some of the particular prosthesis-related difficulties. Amputees must go to rehabilitation centres, where their issues are addressed under the supervision of professionals. (Gill et al., 2020).

**Socioeconomic Problems:** Amputation results in a person's lifelong impairment. Because they immediately impact an individual's walking abilities, lower limb amputations are more debilitating and far more prevalent than upper limb amputations. It adds to the societal cost by lowering an individual's quality of life and reducing the efficiency of a country's workforce. This decreases the country's per capita income, further worsening its economic situation. Medical co-morbidities, the amount of amputation, cognitively, age, which was before level of function, social protection, environmental circumstances, and economic ability are only a few of the linked factors that impact functional outcome after amputation. Individual psychological and cognitive well-being, social support, financial position, and a variety of prosthesis-related variables all impact on rehabilitation outcomes (Agrawal et al., 2017).

Losing a limb is a serious public health problem that has substantial social, psychological, and economic consequences for the patient and his or her family, as well as society. Limb amputation is done for a variety of causes, including injuries, tumours, infections, peripheral vascular disease, and congenital abnormalities. When it comes to impoverished nations like Pakistan, where health care is the last thing on people's minds and prosthetic services are severely lacking, the scale of these difficulties grows exponentially. Furthermore, the existing services are either inaccessible or unaffordable to the general public. In Pakistan, amputation-related disability is regarded as a shame and a curse by the general public. People with disabilities, particularly those who have had limbs amputated, are seen as incomplete people (Gill et al., 2016).

Amputation of the lower limb has a substantial socioeconomic impact, as well as a reduction in functional ability, autonomy, and quality of life. The interdisciplinary therapy intervention encourages patients to overcome their limits and plays an essential role in functional re-education. The lower-limb prosthesis is crucial in recovering and/or increasing physical capability, body image, and the ability to perform everyday tasks independently. Physical and cognitive factors, as well as prosthesis adaption, all play a role in a positive prognosis. Elderly persons who have had a lower limb amputated place a strain on health-care resources since they require substantial rehabilitation and long-term care. The unusual appearance of older people who

have had a lower leg amputated, with numerous medical, psychological, cognitive, and social co morbidities, offers significant challenges to long-term care (Silva et al., 2019).

The social and economic rehabilitation of amputees is a critical problem. The treatment of life-threatening injuries and cancer are two common reasons for amputation. Amputations of the lower limbs remain a difficult problem. Patients who have had limbs amputated have difficulty sleeping, concentrating, and retaining information, which can lead to worry and despair. After two years of amputation, psychological issues with physical appearance begin to arise, which can lead to social anxiety. Furthermore, these issues may have a detrimental impact on the patients' professional and social life (Tutak et al., 2020).

**Social and Psychological Problems:** Individuals who have had an amputation confront a variety of social and psychological issues in addition to dealing with physical changes such as decreased balance and movement, pain, and discomfort. The embodied experience following amputation, including coping with identity changes, body image concerns, the meaning of using a prosthesis, unpleasant responses and sentiments about their amputation, and social discomfort, has been well documented by researchers studying these issues. Furthermore, studies have discovered that having difficulty doing fundamental tasks and daily activities can lead to a loss of independence, feelings of inferiority, lower well-being, and issues coping with their new identity in those who have had an amputation. As a result, it's not unexpected that persons who have had an amputation may be prone to worry and despair, especially in the early stages of their recovery (Day et al., 2019).

Amputation and prosthetic limb adaptations are physically, psychologically, and socially complicated procedures. In order to conduct daily activities, resume employment, and other activities in line with his or her obligations, responsibilities, and expectations, the body must adjust to the amputation setbacks, phantom limb pain, and obtain functional skills and expectations with the amputated limb. Individuals must psychologically cope with the amputation and its repercussions, embrace their new body image, and adjust to the physical and mechanical characteristics of the replacement limb. On a social level, peoples must fulfil social responsibilities and interact socially. As a result of the physical change brought about by amputation and the problems provided by the altered condition, adaptations to amputation and an artificial limb include functional ability, psychological adjustment, and satisfaction with the amputated limb on individual and social levels (Sinha et al., 2014).

**Theoretical framework:** Among prosthesis users, 'just normal' has emerged as the most pressing problem. People are concerned about their ability to use it and living the ways that people believe are right eventually, like being equitable and enough. The concept is based on the idea of being "just normal," which is in line with the Grounded Theory method. This is a serious issue among prosthesis users, and three solutions have been discovered. 'Preserving, redressing, and persevering' were the terms used. Each idea is made up of three parts. These ideas, when taken together, convey and accounting for the diversity of people lives 'just normally.'

**Preserving:** Whenever prosthesis wearers identify challenges on their ability to survive a "just normal" life, they take a variety of precautions to protect themselves. Prosthesis users participate in three different ways for preserving their capacity about being "just normal" in this component of the theory, which are referred to as black-spotting, conserving, and sufficing.

- Whenever road are called "black spots," they usually regarded to have characteristics that pose an especially substantial risk to road users' safety.

- 'Conserving' refers to the cautious management of available resources.

- When people refuse to alter their condition and want to keep the same, they are said to 'suffice.'

**Redressing:** Redressing is the second most common way of dealing with a fear of being just normal. When people redress,

people believe they aren't existing just normally, or that something isn't just normally, and therefore attempt to rectify the situation. Such redressing actions are carried out by prosthesis wearers by righting what's wrong, restoring the balance, and re-coursing.

- Users of prosthetics may come upon situations that while they do not believe are ethical or adequate for survive with. It is a method for righting what is wrong and getting back to just normal.

- "Restoring the balance" When people may be without resources or are addressed in manners which do not reflect their sense of what it is to be just normal, they must remedy what is wrong.

- Not every attempt for restitution is successful. The notion of 'Re-coursing' describes how people reflect on errors and re-configure their technique to going return to 'just normal.'

**Persevering:** Just normal is a part of living which is about right, among other things. It emphasises that being just normal, and hence what is 'enough,' is more important than being great or perfecting the lifestyle. It opens the door to issues that arise as a result of people being 'just normal' or engaging in 'just normal' activities. In the face of just normal challenges, persevering is characterised as obligated persistence, trusting to transience, and mole-hilling.

- Obligated persistence is a type to enduring.

- Trusting in transience is one strategy for tolerating or coping with problems in order to be just normal.

- Making a mountain out of a molehill is an expression that refers to exaggerating the severity of something.

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## RESEARCH METHODOLOGY

**Research design:** The research design is the core axis that guides the rest of the investigation. However, for this study, a qualitative research methodology is applicable. For this study, in-depth case study method was employed. The nature of the research draws our attention to the specific study. This is the most suited study strategy since the respondents were available in small numbers.

**Universe:** The universe for the following study was all the prosthetic limb amputees in Multan District.

**Target Population:** All the prosthetic limb amputees were the population of the study.

**Sample:** 15 cases were selected to investigate the study.

**Sampling technique:** Non probability purposive sampling technique was used.

**Tools for data collection:** To measure the socio economic problems faced by prosthetic limb amputees, researcher used the interview guide. As a result questions were asked from the respondents during face to face meeting.

**Data analysis:** Thematic analysis was used to analyse the data.

### Thematically Analysis

**Causes, side and level of amputation:** In all these cases, most of the amputations are due to accidents, diabetes, gunshot, amputation of any part of the body in machinery while working in factories and sudden stop of blood in any part of the body. Most people have lower limb amputation, including in left or right leg, above or below knee amputation. In mostly cases people of lower limb amputations have severe disability. In all these cases, most people have unilateral amputation and one man has bilateral amputation.

**Adjustment and satisfaction with prostheses:** After amputation the use of prostheses is very painful for people. The use of prostheses is especially painful for people with lower limb amputation. When people use artificial limbs after amputation, in the beginning the use of artificial limbs hurts them a lot. They have to be trained to walk with prostheses and then slowly these people start using prostheses but still they cannot walk like before. Some people are not satisfied with prostheses because the use of prostheses hurts them. That is why some people have stopped using prostheses to avoid this problem, which is why they can no longer do any work. One participant said,

"Before getting the prosthetic leg, I thought that I would be able to walk like other human beings but it is very difficult for me to use the prosthetic leg. With the use of an artificial leg, the skin begins to deteriorate, the body begins to feel restless and my brain begins to be affected."

Some people use prostheses and they are satisfied with the use of prostheses because of the use of prostheses they are doing their daily work. Another participant said,

"there is no substitute for the blessings that Allah Almighty has bestowed on us, but I am also satisfied with the prosthetic leg because without it I can no longer walk at all."

The use of prostheses is painful for some people but they have to work to meet their needs. Which is why they consider the use of prostheses necessary for themselves and they do their best to adjust with the prosthesis. Another participant said,

"I am not satisfied with the prosthetic leg because the use of prosthetic leg often causes pain in the knee and leg. But without the prosthetic leg I am unable to do any work. The use of an artificial leg is important to me because it is my responsibility to meet the needs of my wife and children. But when there is severe pain in the leg, I cannot use the prosthetic leg for two to three days."

**Prostheses usage problems:** The use of prostheses in the changing seasons has a very bad effect on the skin which is why people rarely use prostheses in summer. Blisters form on the skin. Sweating in the summer makes it very difficult to use prostheses. The skin begins to fall off. One participant said,

"I am trying to walk with the prosthetic leg, but walking with the prosthetic leg hurts me a lot. I having severe pain in my knee and if I use it for a long time, my leg becomes numb. The use of prosthetic leg causes the skin to deteriorate in summer."

People with lower limb amputation experience severe pain in their legs when they use prostheses. Due to which they cannot walk with the prosthesis for a long time. If they use the prosthesis for a long time then the part of the body where the prosthesis is placed becomes numb. Another participant said,

"Walking with an artificial leg causes a lot of pain in the leg. Where a prosthetic leg belt has to be fastened, part of the body is numbness and if I still tries to walk with the prosthetic leg, the wound on the skin and the skin begins to fall off."

Due to severe pain in the body, people use prostheses with caution, for a while and when needed. Lower limb amputation is more of a problem for people because after the amputation of the lower limbs, person cannot walk on his own again. Even trying to walk with prostheses requires a lot of caution and courage. Another participant said,

"After getting the prosthetic leg, I get pain, inflammation and soreness in my knee and above the knee. Then I checked with the doctor and after the treatment there is some improvement."

**Social Aspects:** Amputation brings a lot of changes in a person's life. Those changes are reflected in the behaviour of other human beings, in front of the disabled person. Sometimes people's bitter behaviour hurts this disabled person a lot because a person with a disability cannot work or participate in any activity like other human beings after disability. People with disabilities depend on other people for all their work after their disability. The disabled person becomes needy of other people. But when other people do not meet the expectations of this disabled person, this disabled person is very sad and feels helpless. One participant said,

"Before the leg was amputated I could do everything on my own but now I am helpless I cannot go to my friends and relatives on my own and now people's attitudes are not the same as before. There have been a lot of changes in people's attitudes which is why I don't feel like going to a friend or relative anymore."

People with disabilities are considered inferior in social life. On the one hand, they are helpless in every matter due to disability and on the other hand the people of the society make them helpless. The disabled person is going through some or the other distress every moment. Another participant said,

"I have experienced inferiority complex in front of people many times. I often feel inferior when people do not take me seriously or understand what I am trying to say."

Because of amputation, some people spend their entire lives alone. Amputation cannot lead to marriage because the disabled person himself also depends on others. So in our society it becomes difficult to marry such people. Another participant said,

"My marriage could not take place due to my disability and I could not do anything after the leg was amputated and I became a burden on my family. Even after putting on an artificial leg, I can't work because the use of an artificial leg is very painful for me."

**Economic Aspects:** Money is the biggest need of human beings. Many people cannot get treatment due to lack of money and eventually they face amputation. Most of the poor people in our society are disabled because they cannot get treatment properly due to lack of money and such people have to live with disability all their lives. One participant said,

"may be if my financial situation was good then I would have got my treatment from a good hospital and today I would be fine."

People with disabilities whose wives and children and there is no other earner in their house. They face difficulties all their lives. They cannot educate their children and at an early age their children start working. Due to which they and their children suffer from financial difficulties all their lives and being unable to do any work on their own due to disability. Another participant said,

"Ever since I became disabled, my financial situation has deteriorated. It has become difficult for me to meet my children's expenses, household expenses and other necessities and that is why I am always in financial trouble."

**Psychological Aspects:** After amputation, a person has to go through a lot of physical and mental suffering. Controlling the mental state is not in the power of a person. Every part of our body is a blessing for us. If there is no part of the body, we become incomplete. People with disabilities also suffer from mental illness and the healing of the mental state is then under the control of man himself when his heart and mind are satisfied with his life. Using prostheses after amputation also causes mental distress because prostheses are not so easy to use. One person said,

"Whenever I use an artificial leg, it has a very bad effect on my brain. I get angry and scream and I do not understand what I am doing. Anxiety begins to form in my head and body, which is why I have reduced the use of prosthetic legs so much, so that now I uses only crutches."

## CONCLUSION

This study examined socio economic problems faced by prosthetic limb amputees in Multan, Pakistan. To measure socio economic problems faced by prosthetic limb amputees, researcher used the face to face interview schedule. Social, economic and psychological aspects discussed in this research. This research explains how people use prostheses after amputation, what problems and difficulties they have to go through after using the prostheses. The results show that after amputation people face many problems, after amputation the use of prostheses is very painful for people. The use of the prostheses is especially painful for lower limb amputation people. Lower limb amputation people experience severe pain in their legs when they use prostheses. Due to which they cannot walk with the prostheses for a long time. The use of the prostheses in the changing seasons has a very bad effect on the skin which is why people rarely use prostheses in summer. Some people are not satisfied with the use of prosthetic limbs because the use of prostheses hurts a lot for them. Amputation of any part of the body not only adversely affects the personal life of the person but also the psychological, social and economic consequences of the person. People with amputation are considered inferior in social life. Amputation brings a lot of changes in a person life. Many people cannot get treatment due to lack of money and eventually they face amputation. Most of the poor people in our society are face amputation because they cannot get treatment properly due to lack of money. Amputation is

not easy to overcome. After amputation, many people suffer from depression, inferiority complex and severe mental stress.

**SUGGESTIONS:** Suggestion is given by researcher to improve the socio-economic problems faced by prosthetic limb amputees. These are as follow:

- Government should provide free prostheses to people with amputation because many people in our society cannot afford prostheses due to poor financial conditions.
- Government should make a separate ward for people with amputation mandatory in every government hospital in Pakistan, where such amputation people can be treated for free.
- Government should also be provided with free prostheses and experienced staff should be available at all times to train these people to use prostheses.
- Government should set up an institution to help people with amputation and provide them with employment, where such people can find a job to meet their living needs and have a source of income for them.

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