

Introduction

Amputation is the excision of part or of the whole extremity through a surgery by which part of the unviable member is removed, giving rise to a deficiency.⁴ A major lower limb amputation refers to those performed above the foot level.⁴

Rehabilitation treatment in a patient with lower limb amputation aims to achieve the highest degree of functional independence, particularly concerning mobility, either by using a prosthesis, a wheelchair, crutches or a walker.⁵⁻⁶

In this work, those factors determining the use of prosthesis in patients with major lower limb amputation will be qualitatively studied.

Follow-up of an amputated patient is not only restricted to his/her physical condition, but also to his/her emotional and social aspect, including his/her family within the adaptation process.¹

Materials and Methods

Object population consisted of a 10 patient equipped cohort having major lower limb amputation who attended the Physical Medicine and Rehabilitation Service at the HIGA General San Martín of La Plata between September-2013 and September 2014; the sample was randomly taken, 3 of whom did not attend the scheduled appointment.

Inclusion factors: >15 year patients, male and female, having major lower limb amputation, being cardiologically apt to carry out activities at the Rehabilitation gym, functional upper members.

Exclusion factors: patients unwilling to be included in the study, patients having upper member amputation, patients having minor lower member amputation, patients having lower member two-sided amputation, patients having language alterations, both in expression and understanding, and related psychiatric disorders, patients showing clinical interferences during the study.

A non experimental scanning qualitative study was used as a model. Data achievement through semi-structured interviews individually performed, which were audio recorded and textually transcribed in order to identify the possible factors involved in the failing to use the prosthesis. Textual quotations were used being it identified ten codes with their corresponding analysis unit, which enabled to meet points in common as regards the interview performed, thus achieving a general conclusion.

Codes analyzed were as follows:

1. Failure to use prosthesis: whenever the patient does not use the equipment. **2. Placement technique** **3. Institutional use of prosthesis** **4. Home use of prosthesis.** **5. Community use of prosthesis.** **6. Functionality without prosthesis.** **7. Psychological assistance.** **8. Family opinion and others.** **9. Perception:** patient feeling concerning his/her treatment and his/her new health condition. **10. Complications:** difficulties evidenced by patient during the use of the prosthesis.

"Results of each code"

1. Failure to use the prosthesis: 4 patients refer different difficulties concerning the use of the prosthesis. Ex: "and no, I can't, I have no stability, I'm telling you the truth, I have no stability with the prosthesis, I can't walk. The remaining patients do not refer any difficulty.

2. Placement technique: 5 patients do not refer any difficulty and they know the basic care. Ex: "once, the doctor showed me how to do it and told me it was piece of cake, and it's easy to me, very easy". The remaining patients cannot manage themselves to place the prosthesis.

3. Institutional use of prosthesis: 5 patients refer to the use of prosthesis within the hospital.

Ex: "I'm happy, I could hold the small leg, because I had one and my second small leg, which is more complete, I can walk better now and I'm trying to improve that".

4. Home use of prosthesis: 7 patients use their prosthesis at home. Of these, 3 find it functional and only 4 use it for training at home.

Ex: "As soon as I get up I put on my prosthesis, and it is then when my day begins".

5. Community use of prosthesis: 3 patients achieve community gait, recreational, working and social use.

Ex: "if I have to do the errands, I go, I always walk by myself". One patient cannot use it. No further references from the remaining patients.

6. Functionality without prosthesis: 7 patients are functional without the prosthesis at different levels, some of them use a wheelchair and others are assisted through crutches or walkers.

Ex: "I do the errands, I do the dish, some other stuff, by using the crutches".

7. Psychological assistance: 1 of them was assisted psychologically acknowledging its usefulness. 2 of them were given guidance only, while the other patients were not given any psychological assistance and do not refer any need of it. Ex: "no, not at all, my life is quite normal, my thoughts are clear, I always relied on my family, and I spoke to the people".

8. Family opinion and others: 6 patients obtained a positive opinion from their relatives and their close environment. The remaining patient refers to the support provided by his/her family versus the indifference coming from those people not belonging to his/her family.

9. Perception: 5 patients refer that they feel at ease and realize about the usefulness of the rehabilitation treatment, while the remaining 2 do not make any reference to it. 6 patients said that they were able to face the situation favourably, which impacted positively on their mood, the remaining patient did not achieve the same result as his/her peers. Ex: "honestly I cannot walk and I want to walk but I can't and now I am afraid, I don't know what to do, I can't, I gave up".

10. Complications: 3 patients do not make any reference to the code, the remaining patients showed complications such as: sweating and skin alterations, stump pain, phantom limb feeling, loss of stability, placement difficulty and knee osteoarthritis. Ex: "in Summer it is complicated because of heat, too much sweating"...

Conclusions

The chance of performing this study enabled us to identify some failures interfering with the use of the equipment.

Both the health staff and the patient's family nucleus assume quite a relevant role in relation with the rehabilitation process in every stage.

Amputation affects the body makeup as well as feelings and emotions, and how those suffering may connect with the outside world, being them able to face a new unknown world which now becomes part of them. Taking into account the feelings of every patient, at the various stages during their rehabilitation treatment, their integral approach could be improved.

References

1. Bañol H et al. Paciente amputado de miembro inferior: necesidades físicas, emocionales y sociales insatisfechas. Rev Repertorio Medicina y Cirugía 2003.
2. Chini GCO, Boemer MR. La amputación bajo la percepción de quien la vive: un estudio desde la óptica fenomenológica. Rev Latino- am Enfermagem 2007.
3. Diaz Agea J L et al. El sufrimiento de las personas amputadas. Un enfoque etnográfico con aplicaciones psicoterapéuticas. Rev Psico de la salud (new age) 2013.
4. González Viejo M et al. Amputación de extremidad inferior y discapacidad. Prótesis y rehabilitación. Barcelona, España. Editorial Masson, 2005.
5. Sauter CN et al. Functional Outcomes of Persons Undergoing Dysvascular Lower Extremity Amputations: Effect of a Post- Acute Rehabilitation Setting. Am J Phys Med Rehabil. 2013.
6. Fortington LV, Rommers GM, Wind-Kral A, et al. Rehabilitation in skilled nursing centres for elderly people with lower limb amputations: a mixed-methods, descriptive study. J Rehabil Med 2013.
7. Henríquez García L. Calidad de vida de los pacientes amputados de la extremidad inferior. Rev Médica de Costa Rica y Centroamérica 2009.
8. Sánchez I et al. Manual SERMEF de Rehabilitación y Medicina Física. Sociedad Española de rehabilitación y medicina Física. Editorial Panamericana, 2006.
9. Zhou J et al. Factors influencing receipt of outpatient rehabilitation services among veterans following lower extremity amputation. Arch Phys Med Rehabil. 2011.