Original Article

Symbolic aspects of lower limb amputation from the perspective of Jungian psychology

Aspectos simbólicos da amputação de membros inferiores na perspectiva da psicologia junguiana

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ABSTRACT | INTRODUCTION: With increased clinical incidence, amputation is a complex process of total or partial removal of an organ located at a body end. Besides the organic and social repercussions, amputation also mobilizes representations, ideas and affects that interfere with the actions, thoughts and feelings, demanding a resignification of losses. **OBJECTIVE:** To analyze the symbolic aspects of the amputation process and the associated complexes beyond the body literalness. **METHOD:** Qualitative and exploratory case study conducted in a public hospital in the countryside of the state of Bahia, Brazil. We conducted semi-structured interviews and collected data from medical records and analyzed both through content analysis in the light of Analytical (Jungian) Psychology. **RESULTS AND DISCUSSION:** The results highlighted three narrative categories, viz., the impact of the participants facing the announcement of the amputation, the emotional aspects and perceptions after surgery and the symbolic constructions in the face of amputation. The discussion showed that amputation is seen as a loss that is mainly associated with the activation of the complexes of life and death, the invalid and the warrior. **CONCLUSION:** We concluded that the symbolic processing is dynamic and individualized, and the psychologist may act promoting a symbolization of the experience still in hospitalization, enhancing care strategies of subjective aspects.

KEYWORDS: Amputation. Disabled. Jungian Psychology

RESUMO | INTRODUÇÃO: Com elevada incidência clínica, a amputação é um processo complexo de retirada total ou parcial de um órgão situado numa extremidade. Além das repercussões orgânicas e sociais, a amputação também mobiliza representações, ideias e afetos que interferem nas ações, pensamentos e sentimentos, demandando ressignificação das perdas. **OBJETIVO:** Analisar os aspectos simbólicos presentes no processo de amputação e os complexos associados para além da literalidade corporal. **MÉTODO:** Pesquisa qualitativa e exploratória, do tipo estudo de caso, realizada num hospital público do interior da Bahia. Foram realizadas entrevistas semiestruturadas e coletados dados de prontuário, ambos analisados através da análise de conteúdo à luz da Psicologia Analítica (Junguiana). **RESULTADOS E DISCUSSÃO:** Os resultados evidenciaram três categorias narrativas, sendo o impacto dos participantes frente à notícia da amputação; os aspectos emocionais e percepções frente ao pós operatório e as construções simbólicas frente à amputação. A discussão mostrou que a amputação é encarada como uma perda associada principalmente à ativação dos complexos da vida e da morte, do inválido e do guerreiro. **CONCLUSÃO:** Concluiu-se que o processamento simbólico é dinâmico e individualizado, podendo o psicólogo atuar na simbolização da experiência ainda no internamento hospitalar, potencializando estratégias de cuidado dos aspectos subjetivos.

PALAVRAS-CHAVE: Amputação. Deficiente físico. Psicologia Junguiana

Submitted 24/11/2020, Accepted 04/03/2021, Published 03/11/2021
Rev. Psicol. Divers. Saúde, Salvador, 2021 March;10(1):94-105
http://dx.doi.org/10.17267/2317-3394rpds.v10i1.3428
ISSN: 2317-3394

How to cite this article: Souza, A. .S, & Gomes, D. R. G. (2021). Symbolic aspects of lower limb amputation from the perspective of Jungian psychology. *Revista Psicologia, Diversidade e Saúde,* 10(1), 94-105. http://dx.doi.org/10.17267/2317-3394rpds.v10i1.3428

Introduction

Amputation is one of the oldest therapeutic resources in medicine and consists of the total or partial removal of an organ located at a body end. It is pointed out as the oldest surgery ever performed. The first surgical reports showed precariousness and high mortality degrees in the procedure, whose improvement started in the 16th century by Ambroise Paré, a military surgeon acting on battlefields (Garlippe, 2014). Most current surgical techniques were introduced in the 20th century. The main causes of amputation are tissue necrosis due to vascular diseases, congenital malformations, infections, tumors and traumas. The complications from diabetes and peripheral vascular disease are the most significant, comprising about 75% of the cases. The surgeries are usually reconstructive, and their planning is directed to transforming the stump into a useful limb for later rehabilitation (Garlippe, 2014).

An investigation contemplating publications from 1989 to 2010 detected 5.8 to 31 cases per 100.000 people in the general population, and 46.1 to 9600 in the diabetic population (Moxey et al., 2011). By making up 85% of the total, amputations at the lower limbs reflect on the socio-economic context by demarcating restrictions in work capacity and socialization, besides causing health issues that compromise several spheres of life, such as the professional, interpersonal and familiar ones (Caromano et al., 1992).

Despite causing changes related to sensorial and motor decrease or loss, amputation represents for some authors an acquired disability by compromising daily activities, health state and interpersonal relationships of the affected individual (Alves & Duarte, 2010). One can verify, however, that the construction of the notion of disability associated with amputation arises and spreads as an unconscious collective representation since the sensorial and motor loss that physically defines amputation should not necessarily reiterate its association with a disability, whose archetypal correlation is commonly denoted by abnormality, insufficiency and imperfection (Ivanovich & Gesse, 2020).

Archetypes are unconscious representations and fantasies mimicked by symbolic images whose origin is not known, but that consist of dynamic and acting psychological structures, "that manifest themselves in impulses, just as spontaneously as instincts" (Jung, 2008 p.74). The functioning of archetypical structures is verified in dreams, visions of the world and thoughts, and they intervene in the construction of significant, collectively shared and unconsciously reaffirmed interpretations.

The archetypes (contents of the collective unconscious) and the collective unconscious are concepts that are widely theorized by Jung (2000b; 2008) and justify the theoretical and methodological support when one thinks of the archetype of disability that is universally merged with amputation. As a collective unconscious representation, the amputation-disability archetype pair can produce and reinforce myths of religious or moral nature to endorse the sorrows and attitudes in front of life events, crystalizing extremely limiting and passive representations to the amputee. As reported by Ivanovich and Gesser (2020, p.1), formerly, "disability was already explained as divine retribution, misfortune, and even moral failure".

Different from the contents of the personal unconscious, which already belonged to one's conscience and were suppressed, i.e., forgotten, the contents of the collective unconscious never inhabited the individual conscience, but were acquired hereditarily; they are contents, "themes and reasons that owe their existence only to heredity, being present all the time and everywhere" (Jung, 2000b, p. 53). Such themes and subjects are reactivated by endless repetitions across the generations and emerge a priori as empty forms that manifest compulsively, triggered by an upsetting perception, action or sensation. In the meantime, the collective unconscious is triggered by the psyche, and the archetypes impose themselves as automatic and instinctive reactions.

Concerning the body and subjectivity, amputation represents an important milestone in an individual's life because it calls the word to the representation of sensations, images and feelings that are beyond their overt and immediate meaning, favoring the

manifestation of unconscious phenomena that tend to be represented in a chaotic and unsystematic manner (Jung, 2000b). Considering the possible impacts on the existence of the individual that is questioned by the representation of disability with which amputation is often associated, aspects related to readaptation/change in the meaning of aspects that include functionality, autonomy, body image and self-esteem (aspects of both practical/adaptive and functional order and symbolic/emotional order) are based on ableist practices, i.e., "based on the belief that disability or incapacity is inherently negative and needs to be improved, cured or eliminated" (Ivanovich & Gesser, 2020, p. 2).

By implying a literal loss whose effects go through functional, social and subjective dimensions, the amputation updates previous losses and calls for mourning in front of the "lost" body to be reintegrated (Gabarra & Crepaldi, 2009; Seren & De Tilio, 2014). Given the body modification, one can see a reallocation of a set of meanings attributed to the body which, while a literal representation of the ego, makes the sensation of being alive present and permeates the relationship of the individual with the external world (Keleman, 2001). Thus, the loss of a limb is seen as a death in life from a concrete rupture from oneself, the life project and the previous functioning mode, announcing a decisive rupture of structuring aspects of the ego, alterations of the persona, contact with dark elements and the constellation of complexes (Rodrigues, 2009).

Personal experience of the archetypal material (which is universal to the human species and, therefore, contemplated in the collective unconscious), the complexes, in turn, are defined by a set of representations, ideas, images and experiences with the same level of emotional composition but that operate in the individual unconscious. According to Jung (2008, p.75), the complexes are considered "compensations for one-sided or faulty attitudes of consciousness" (p.75) and, in this sense, the action of the analyst consists of observing, analyzing and exploring the complexes, the archetypes and the symbols, helping the individual free himself from potentially reprehensible contents.

By having an autonomous character, the complexes directly affect the behavior of an individual, especially when subjected to mobilizing situations and/or that require adjustment (Hall & Norby, 1992), as in the case of amputations. From the perspective of the ego, four behavioral manifestations are possible regarding the complexes: complete unconsciousness, identification, projection and confrontation, which enables the resolution through the emotional processing of the conflicts and the associations responsible for their formation (Jacobi, 2016). As they act autonomously when constellated, the complexes act in the face of the process of egoic reconstitution and demarcate the symbolic functioning of the individual (Hall & Norby, 1992). According to Jung (2000a, p.19), "to be constellated indicates that the individual adopted an attitude of preparation and expectation, based on which he will react in an entirely definite way". Despite being an automatic process, the constellation of complexes may occur to dissimulate or cause-specific reaction modes with a defensive character toward the possible deregulations of the notion of self.

Considering that the organic symptoms and the disease itself are realized as a symbolic manifestation that emerges simultaneously in the body and the psyche and that announces deregulations in the ego-self axis, the symbol expresses, through the body, unconscious contents to be integrated, seeking psychic amplitude (Ramos, 1994). The definition of symbol herein adopted refers to the Jungian conceptualization that contrasts with the understanding of sign, conceiving it as "an attempt to elucidate, through analogy, something that still belongs entirely to the domain of the unknown, or of something that is yet to be" (Jung, 1999, p. 287). It is something that is beyond its immediate manifest meaning, insofar as it infers irrational senses, i.e., that do not go through the rational conscious logic. It does not configure allegorically as a signal, but as an image of unconscious content. In this respect, the symbol is intransitive by itself, with its significance having an inexhaustible character (contrary to the signal/allegory), whose purpose is arbitrary and the senses are finite (Junior, 2009).

By contacting the symbols, which delegate creative and dialectical relationships with the psyche, it is possible that the individual gives new meanings to experiences and elaborates new experiential directions, as becoming aware of its contents allows the consideration of the one-sidedness and egoic fragmentation from the conscious perspective. By conceiving the unconscious as a propulsor of creative solutions to opposites through synthesis, i.e., the harmonic encounter of antagonistic tendencies, Jung proposes the symbol as a mediator and agent of that function (Junior, 2009). Thus, the symbolic repercussions outline analogical elucidations from aspects belonging to the domain of the unknown and/or that escape from the conscious control, so that they work as a vehicle to access those contents underlying the psychic dynamism (Jung, 1999). In the face of amputation, this sense is expressed in a carnal, concrete way, printing an explicit record of subjective experience either through the marks caused by the loss/absence of the limb or by defining the way that the disability was acquired (Rodrigues, 2009).

By not being part of the psychic reality of the subject, this disability is seen as an extra-ego event to which one does not have a previous repertoire, which results in identity conflicts that are strengthened by the displacement of the previously occupied social place (Rodrigues, 2009). In this process, the characteristics developed through the life history are opposed by those imposed by the loss of the limb, which refutes the identity sense and centers the notion of I on the aspect of the disability (Fernandes & Denari, 2017). As disabilities are historically associated with some disadvantage and/or limitation (Fernandes & Denari, 2017), it is common for a sensation of isolation and less value to arise, inserting the individual in an arsenal of questions about his social roles and functions (Rybarczyk et al., 1997), as well as causing the introjection of dark aspects that are parallel to the persona's unsatisfactory development (Rodrigues, 2009). Thus, the sense of the totality of the Self is restricted due to the physical and literal aspects that are evident on the body and the sociocultural repercussions.

As the amputation of limbs is enclosed in a set of literal, social, personal and work losses, among others, it may constellate complexes and mobilize emergent symbols. Thus, with the mission of favoring the construction of elements that provide health assistance that goes beyond the concrete dimension of limb loss and enables reaching and rescuing the subject in his complexity, this study aimed to analyze the symbolic aspects of amputation of the lower limbs from the identification of the main associated complexes and the understanding of its repercussions beyond the physical-literal aspect. The scientific and social relevance of this study is that: judging by the high incidence of lower-limb amputation and its multiple entanglements, knowing the symbolic dynamic allows seeing the subject in an integrated manner, which settles the relevance of this study in the interdisciplinary context of hospital psychology and health. To this end, we will present clinical vignettes and reflections in the light of Jungian Psychology.

Method

This is a qualitative and exploratory case study conducted in a public hospital in the countryside of the state of Bahia, Brazil. The context of the study (empirical field) were medical and surgical clinics of the referred hospital. The research was linked to the Program of Multiprofessional Residency in Urgency (with an internship of the Ministry of Education and Culture), having the Federal University of Bahia (Multidisciplinary Institute of Health/ IMS) as the managing institution and the General Hospital of Vitória da Conquista (Escola Estadual de Saúde Pública da Bahia/EESP-BA) as the executing institution. The study included four subjects above the age of 18 in a postoperative phase of amputation of lower limbs and hospitalized by secondary clinical conditions that were not previously determined. The sample was chosen intentionally and by convenience due to its importance regarding this subject. The sample choice and size occurred by theoretical saturation, without statistical predetermination, given that, considering the qualitative methodological approach, "only at the end of data collection the researcher will know how many cases ended up included" (Turato, 2013, p. 359). The inclusion criteria encompassed: a) being at least 18 years old; b) being in a postoperative condition due to amputation of the lower limbs; c) agreeing in participating in the study by signing an Informed Consent Form (ICF). We excluded from the sample patients in a condition of intubation, with decreased levels of consciousness and/or with organic restrictions to communicate.

For data collection, we used the following techniques: document analysis (of the patients' records) for sociodemographic characterization and health condition; and semistructured interview, which was previously devised according to the study's objectives. The interview's schedule included open questions about the amputation process, the experience of the surgical procedure, experienced feelings and sensations, confrontation strategies and perception about the postoperative condition. The researcher (resident professional) conducted an active search in medical and surgical clinics to identify participants matching the investigation criteria. The document analysis contributed to characterize the health condition (cause of hospitalization) and assess the inclusion of the patient in the research criteria. After confirmation from a potential participant, the researcher contacted them in the bed, the ICF was celebrated and the interview was conducted in a private place and institutionally guarded by confidentiality. The interviews occurred from August to November 2019 and, as they were semi-structured, extended through more than one encounter with each participant, allowing them to manifest themselves beyond the structured questions. The interviews were recorded in audio and later transcribed during data analysis. Before the collection, the study was approved by the Research Ethics Committee of the Federal University of Bahia, CAAE nº 09899019900005556 and followed the parameters and items that govern the Resolutions no. 466/12 and 510/16 of the National Health Council – CNS, in accordance with strictly scientific and academic purposes.

Data analysis was conducted according to the technique of content analysis of Bardin (1977), which allows replicating ponderations and inferences about data of a specific content through record units and prominent categories in the collected material. The data analysis contemplated, following the technique, a pre-analytical stage (floating reading of the interviews, determination of the record units and construction of categorization modes). Following, we moved to the stage of material exploration and codification, in which the researchers paid attention to the appearance of traces, expressions (vignettes) and significant words for the content of the talk to be organized in groups/categories (text clipping). Finally, the stage of data treatment submitted the results to analytical constructions in which the findings were interpreted under the theoretical perspective of Jungian Psychology, correlating symbolic aspects and constellated complexes.

Overall, one can say that qualitative researcher includes methods that are not directed to measure the phenomena in terms of quantity, intensity and/or frequency, considering the qualitative emphasis that is offered to the relationship of the researcher with his object of study. This method intends to seek answers for the experience and its meaning (Minayo, 2014) so that the objective is beyond the description and generalization of phenomena by including the understanding and interpretation of the studied reality (Penna, 2005). Concerning the Jungian paradigm in the context of qualitative methodology, it is worth highlighting that from an epistemological perspective, Analytical/Jungian Psychology is contained inside the limits and possibilities of accessing the unconscious through the expression of the underlying world in the manifested reality (Penna, 2005). Additionally, considering the impossibility of direct contact with the unconscious, this investigation is conducted through the knowledge of the conscience and its manifestations in this reality.

Results and discussion

The data analysis highlighted three categories that reiterate the most evocative senses presented in the narratives of the interviews: repercussions of the announcement of amputation; emotional aspects and perceptions in the face of the postoperative condition; and symbolic constructions in the face of the amputation.

Each category will be illustrated by clinical vignettes that converged to the immersion of the following discussion.

1. Announcement of amputation

This category includes repercussions and crossings named by the participants when they received the announcement of amputation; and concerns the movement of the decision process that requested approval for the procedure to be conducted (post-announcement).

The repercussions of the announcement of amputation occurred through the resumption of the discourse about the loss of the physical body and obliteration of affective questions, endorsed by sensations of collapse and death.

When invited to talk about their impressions on the communication about the need for surgery (amputation), we observed an initial difficulty to contact subjective aspects instead of literal aspects. As a reaffirmation of the experienced shock, there was a discursive return to the loss of the limb, to its functionality in the experience of movement and a return to the history of health-disease, all marked by surprise in the face of the announcement.

It was because the blood wasn't circulating anymore (...) One is used to stroll, walk everywhere, then one can't stand walking, has to cut off the leg, it's hard (...) I wasn't expecting, wasn't expecting this (Participant 1).

Then the doctor looked (...) I came in to take care of diabetes, but the doctor looked at the toe, said that since I had already amputated the leg, you know, first was 'the toes' which got dark, took off the toes (Participant 3).

The doctor debrided, I stayed hospitalized (...) for me it was like if the floor was collapsing, the floor collapsed under me. (Participant 2)

Ah, it was the same as killing me (Participant 1).

It is possible to consider that the expectation of having a simpler clinical condition (which did not necessarily require amputation) is associated with self-preservation and negation in the face of the threat of surgery, as this is perceived as "not easy", unexpected and traumatic (Oliveira, 2000). In their study about the experience of amputation, Loureiro et al. (2002) cite Stearns (1991), Pincus (1989) and Viorst (1988) to clarify that the reactions of shock and disbelief are initial manifestations in the process of loss, acting as psychic immobilizers in front of the difficulty of assimilating and understanding reality. This manifestation of shock and disbelief, illustrated in the assertive "it was like if the floor was collapsing" (Participant 1), to become without a place, unterritorialized, express, thus, an almost immobilizing condition in the face of the lost, the announcement of amputation, and ends up in an initial scarcity of the sense of continuity of life (dilemmas of life and death).

The loss of the feeling of continuity of life is clearly expressed by Participant 1, already in plain contact with aspects of terror, by stating: "it was the same as killing me", reiterating the sensation of immobilization in the face of the announcement and highlighting a future perspective that is negative and anticipating limitations, considering that losing a part of the body means changes in the way of (non)existing (Chini & Boemer, 2007). Moreover, the element of surprise of the announcement was another common factor that deserves consideration.

I expected to have my leg cleaned and that's it, going back home normally (Participant 1).

(...) I didn't expect to amputate again, I thought it would be quick healing, like the other wounds I had on the foot (Participant 3).

Never, we never expect it, right, both at the first amputation and now (Participant 4).

The doctor had already warned me, 'yeah, yours is... it is bad, you know, full of pus', you will have to amputate (Participant 3).

Identifying these reactions of astonishment and surprise in front of the announcement of amputation becomes, therefore, relevant for the location and comprehension of the difficulties imposed on the individuals by the reality that they are experiencing. The findings of this category reflect on the importance of identifying the activation of the complex of life and death in the experience of amputation of the participants. In this case, the polarity of death emerged strengthened in the mobilization of affects associated with ending, destructiveness, sacrifice and loss (Byington, 2019), figured to the amputation as a crucial condition to keep life up. We understand, especially, that the fixation of a polarity restricts the symbolic elaboration of the experience, making it essential to promote adequate interaction between the designated poles (Byington, 2019).

Concerning the decision process (undergoing or not the procedure), which follows the announcement of amputation, the time of assimilation called our attention as a relevant factor for a favorable bias over the obligation and impossibility of choosing (between amputating or not). The narratives moved toward the importance that is attributed to clarifications by the medical team and endorsed the manifestations

of affection and encouragement as positive and facilitating elements in the decision about the surgery.

My first reaction was not wanting to amputate, right, and then as I started to get much knowledge of the hospital and everything... as I made many... many friends, [the doctor] advised and stuff, I concluded that, that I had to amputate, right, that it was the best for me. So I amputated (Participant 2).

The nurse said: you have until tomorrow at 9 a.m. to think. I wasn't going to amputate, no, but then my neighbor [pause] advised me to amputate... so I decided to amputate (Participant 3).

Being the rationalization of the surgery procedure insufficient for subjective processing of the experience (Chini & Boemer, 2007), these data reveal that, beyond providing information, the type for assimilating the news, the strengthening of the bond with the medical team and family, the assertive communication and affection act as important psychic modulators to be addressed in the pre- and postoperative. As they operate for the mobilization of the life's pole, they allow creative and supportive constructions in front of the difficulties of the announcement of amputation and the procedure to be conducted.

2. Emotional aspects and perceptions in the face of the postoperative

After the amputation surgery, the feeling of shattering arose forcefully, being marked by the disfigurement of the I from the visualization of the self now dismembered and, therefore, incomplete. At the same time, the mention of 'parts' that were lost (removed by the surgical procedure) seemed to have directed the attention to other remaining 'parts', either literal (associated with the physical body) or symbolic ones (subjective, interpersonal):

I'm fighting here to see if I can stay with a piece of the foot (Participant 4).

I removed the toes, removed the [right] foot and after that, before six months, [I removed] the left toes (...). I don't know how I will go on with life (Participant 2).

I got sad [pause], but I saw that the world hasn't ended, right; it was only a piece of my leg, it wasn't my whole life... I have my three daughters who like me very much, take much care of me (Participant 1).

Regarding the image of the lower limbs, the correlations mentioned their structural and symbolic functionality. Interwoven to the identity constitution of the I, these limbs, with highlight to the figure of the leg and the foot, were indicated as fundamental elements for the condition to be in the world: support, basis, reach, independence, agility, velocity, control of oneself, balance, integrity. As discussed by Oliveira (2000), by amputating the feet and legs, one loses, in a real and imaginary manner, the possibility of living values that are attributed to them:

Losing the foot, there is no base, 'got it'? Then you lose your base, you lose your structure, 'got it'? Let's say the root, your root is the foot (...) whether you want it or not we are like a plant, right, if we lose our base, the rest basically dies (...) you cannot do much, right, so you don't have much agility, you don't have much control, do you understand? Everything you must think before you do, otherwise you fall, even with the prosthesis (Participant 4).

For me, a leg is everything (Participant 2).

Considering that the physical loss changes the meaning given to the body, the assimilation process consists of a variation of the egoic structure as different aspects that are negated by conscience arise. These dark aspects contradict the sense of adaptation to the reality that is maintained by the persona so that the literal mutilation has a symbolic correspondence that is expressed by the feeling of shattering and disfigurement of oneself (Rodrigues, 2009).

For most participants, losing a part of the body updated other losses, these synthesized into four dimensions: corporal, related to the self-image and psychic representation of the body; functional, regarding the organic structure of the limb; subjective, concerning the identity, project of life and interpersonal dynamics; and practical, associated with routine and daily activities. These aspects are discussed by Oliveira (2000) as central elements of the mourning experience of amputees. The author discusses that the difficulties in adapting to the new condition are permeated by multiple limitations, which tend to favor the search for external resources that may facilitate them (Oliveira, 2000).

After this, we observed that the emotional reactions fluctuated throughout the process considering the individual and clinical characteristics, degree of amputation and relationship established with the illness. There was a marked manifestation of feelings of intense sadness, disbelief, mismatch, horror, incapacity, impotence, dependence and generalized autonomy loss. These feelings were more intense in individuals subjected to successive amputations.

For me it was terrible [pause] I don't even have an explanation; for me, it is terrible, for me, this is not even happening with me [referring to the other amputation] (Participant 2).

In the postoperative period, the feeling of insecurity prevailed mainly regarding future repercussions, with mentions of negation of reality, sadness and incompleteness. After hospitalization, the more emergent feelings included suffering due to the loss of independence, isolation, dependence, incapacity and uselessness (Bergo & Prebianchi, 2018).

No one knows what an amputee goes through; forgetting that you don't have a limb, it is [pause] the falls that you take through this path; delay in life; it is unbelievable, there is no explanation, you understand? (Participant 4).

These reactions point out to the activation of the complex of the invalid, as the individual comes across impotence and derangement by being crossed by the polarization between physical integrity and deformity, the former equated to health and the latter to disability. Due to the cult to productivity and making oneself able, the archetypal image of the disabled, represented by acquired disability, remains dark, hindering the integration of the limits and losses as natural aspects of life (Downing, 1993). In the context of the amputation, the psychic image of the disabled appears emphatically, leading to the movement of identification of the ego with this complex.

We highlight that the complex of the invalid reveals the contact with fragility, finiteness, death and natural decrease of health, and it emphasizes human interdependence. Thus, its action counterbalances the ego inflation and the relationship person-shadow, nourishing the modesty and the human character of the weaknesses, imperfections and impossibilities over omnipotence and purity of the ego (Downing, 1993). Therefore, it becomes crucial to overcome the identification and face the complex from subjective elaborations that give meaning to the experience. In an amputation event, identifying the 'disabled' himself, without rigidly attaching to it, allows experiencing vulnerability in its potent aspect, which implies welcoming the limitations as part of, and not the whole, experience.

Regarding the perceptions in the face of the concretization of the surgery, we observed that the changes and limitations that were anticipated in the preoperative phase were accentuated. Now marked by restrictions, life and body were determined as elements to be appropriated as part of oneself. A remarkable point was the symbolic construction of rebirth associated with the continuity of life, adaptation to the new, overcoming of adversities and feeling of renewal:

I am now another person, right, because this problem was cured (...) I was born and lived again... this is what I tell you, I was born and lived again (Participant 1).

I saw that the world hadn't ended, right (Participant 1).

Emotionally I feel good (Participant 3).

Today I already made several new friends here and it is worth it, despite the problems, but it is worth it (Participant 4).

According to Jacobi (2016), every rebirth is preceded by death, whose symbolic expression contemplates the previous way of existing and the expression transformed from what is new. The author states that suffering from the process of dying denotes the sacrifice that is inherent to the openness to what is new, this being the symbolic background of the transformation process through the psychic amplitude. Regarding the amputation, the sacrifice includes pain/physical discomfort and concrete loss of a limb, and rebirth arises related to the new health condition.

Given this, it was possible to observe that the positive perceptions were associated with the conception of the surgery as a possibility to solve a problem, identification of improvement from previous symptoms and effective control of physical discomfort, especially regarding pain. Moreover, we noticed that the emotional mobilization can be mitigated by understanding the functionality and benefits coming from amputation, as well as through social reinforcement conducted by the medical team and people that are emotional references, as postulated in the literature (Rybarcyk et al, 1997; Dunn, 1996).

Now I can walk wherever I want with a crutch, in a car, in a... nothing will stop me, right (...) 'the legs healed', the problem is over (Participant 1).

So I concluded that I had to amputate, right, it was the best for me (...) by the way now I want to wear a prosthesis, my name is already in the queue, right, for the prostheses (...) I'm very confident in this rehabilitation (Participant 2).

The perception that there are several social, mobility and rehabilitation possibilities after amputation seems to contribute to the subjective strengthening of the participants, as it reiterated the acceptance of undergoing the procedure as the right choice. This caused a relocation to the place of the active agent, which is responsible for one's own health, allowing one to see the possible actions.

3. Symbolic constructions in the face of amputation

The symbolic constructions regarding the loss of the limb and its implication in the different spheres of life varied between the participants, which reveals, especially, how individual the experience is. The interpreted data indicated that the amputation itself was perceived as a loss, in the sense that one loses a series of actions and movements that were previously possible, including the attempt to avoid it. There was also an allusion between the process of amputation and a battle that they lost, leading to a self-perception of strength and weakness in the face of their action in the process as warriors in a battle marked by self-sacrifice, pain, effort and mutilation.

I've always been strong, I went through a lot, but sometimes weakness comes too, right (...) let's say I'm (...) a warrior in a way (Participant 4).

We keep fighting until we win, right. [pause]. Two years of this, in this fight and taking exams... taking exams... taking exams... in the end it didn't work (Participant 1).

The image of war is rooted within the history of amputation. As a rule, war is often represented at the social level by the figure of the amputee, once a warrior on the battlefield. The improvement of the surgical procedure, prosthetization and the studies in this field had as their initial focus the condition presented by ancient soldiers subjected to amputation during combat (Oliveira, 2000). Consequently, the figure of the warrior surrounded the discourse, the emotional manifestations and the symbolic background of the expressions of the participants in this study.

The activation of the complex of the warrior was observed especially in situations that demanded supporting the pain of the procedures and/or dealing with adversities that escaped the expectations and individual control. As pointed out by Moore and Gilletti (1993), these elements are part of the warrior's training, which, different from the hero, goes through his battles by recognizing and identifying his limitations and is aware of the imminence of his own death. The warrior archetype reveals an active attitude, an exit from the defensive position and the performance of tasks. It is characterized by strength and strategy to destroy what needs to be destroyed, aiming to conquer something new, vivacious, virtuous and fundamental (Moore & Gilletti, 1993). In turn, in amputation, the sick limb is annihilated to reach better conditions of life and health.

Additionally, we observed that the clinical condition, based on the subtraction of the freedom of movement, reiterated the conditions of non-living and paralysis.

Yeah, one doesn't live; I don't live anymore, I vegetate (Participant 2).

Since the age of ten I was the man of the house and did everything, and suddenly I got paralyzed like this (Participant 1).

The loss of the limb inserts the individual in the process of identification and appropriation of the collective persona of the disabled (Rodrigues, 2009), which is characterized in a stigmatized way by limitation, mutilation, inability, defect. Even though considered a natural and expected process, especially in the initial period, the dynamic of assimilating the experienced condition favors confrontation. However, if there is attachment to the persona of the disabled, the individual centers his way of presenting himself to the world and has difficulty moving between the different roles that he plays. Still, in this regard, Rodrigues (2009) cites Freitas (1990) to highlight that the identification with the persona of the disabled involves contact with dark elements of the individual psyche, which tends to generate identity conflicts since the impositions of the former often contradict what was experienced previously.

On the other hand, it was possible to observe that the complex of the creator, whose archetypal basis refers to the mythological figure of Hephestus, became predominantly part of the unconscious. Blacksmith and craftsman, Hephestus has, at the same time, physical deformity and unique ability to create powerful and valuable artifacts. Thus, he has to make tools for heroes, gods and humans, as well as to prepare warriors for mythical battles. A creative genius, Hephestus exists and survives from the disability (Alvarenga, 2007). In its symbolic sense, the wounded hero announces a change in the material reality, at first limiting, into countless creative possibilities (Alvarenga, 2007) from the remodeling of the persona, attribution of new senses to the experience and integration of dark aspects as power.

As they experienced the amputation in its literal meaning, considering the postoperative condition, the participants did not show psychic amplitude to perceive their potential in general. However, some elements associated with creativity and the possibility of performing actions for oneself reveal a gradual approximation of this complex, such as prosthetization to resume activities, social support as a way of subjective strengthening, and continuity of the treatment to keep self-care.

We suggest, therefore, that the complex of the wounded creator acts in association with the complex of the warrior so that the amputation implies a gradual transposition from the place of battling warrior to that of a creator wounded from his experience. Thus, from the experience of the wound (loss of the limb), it is possible to build and create other ways to become a craftsman of one's own life.

All these changes in perceptions and interpretations, by researchers and participants, translate, in this study, the methodological richness of qualitative studies, given the intensity and complexity of the interdisciplinary phenomena involved in the amputation process. The presented vignettes highlighted some aspects of the study, which still encompasses a multiplicity of correlations to be analyzed, but that already offer a relevant scope of the symbolic aspects in the amputation process and the potential emergent complexes in these situations of loss.

Final considerations

The symbolic aspects are marked by the physical-literal condition due to the structural and organic function of the amputated limb and by the subjective values attributed to it. Thus, losing a lower limb refers to the impossibility of existing as oneself (identity unit) from the support of the world and the freedom of movement. We identified the complexes of life and death, the invalid, the warrior and the wounded creator, the latter in a predominantly unconscious way, i.e., not brought to the conscious perception. The movements of identification with the complex appeared especially concerning the complex of the invalid so that the perception of the participants centered on the perspective from the acquired disability over the others.

Beyond its literal aspect, the amputation was understood as a loss through which other losses were updated, the latter being of different dimensions: corporal, functional, subjective and practical. Notwithstanding the individual nature of the experience, constructions of shattering, paralysis of the I and rebirth were observed, as well as an identification with the collective (shared) persona of the disabled and introjection of dark aspects of the individual psyche.

Therefore, we understand that the symbolic processing of amputation to interact with oneself and the world occurs in individual and dynamic ways, being permeated by the life history, relationship with the illness, the medical team and the surgery itself, as well as by the individual's psychic functioning. Considering the multiple implications and the complexity of the involved emotional manifestations, it is important that the psychologist acts in the face of the symbolization of the experience starting from the period of hospitalization and based on understanding the subject as a whole.

In this sense, some possible actions consist of strengthening the bond between the patient, the social support network and the medical team, especially in the preoperative phase; offering, as far as possible, adequate time to assimilate the announcement of the surgery; promoting empathetic actions that validate and welcome the individual, especially in front of emotional reactions; promoting variation between the different modelings of the persona and creative integration of dark aspects; depowering and confronting the complexes to promote adequate interaction between their archetypal poles; enabling a psychic amplitude through the mediation of the ego-self axis.

Finally, we highlight that this study, by connecting the amputation process to symbolic aspects and constellated and/or unconscious complexes, can yet contribute to future discussions about amputation and procedure refusal, social adaptation in the postoperative period, impasses between medical team and patient during hospitalization, as well as implementing a deeper focus on emotional aspects of the amputation of lower limbs. We believe in the importance of the investment by experts and researchers on this subject to improve the assistance that is offered to patients, aiming at increased and more effective multi-professional care.

Authors' contributions

Souza AS participated in the study design, theoretical-methodological design, data collection, data analysis and interpretation and writing the manuscript. Gomes DRG participated in the study design, methodological review, supervision of data collection and analysis, critical analysis of the results and discussion, and review of the final version of the manuscript.

Conflict of interests

No financial, legal or political conflict involving third parties (government, private companies or foundations, etc.) was declared for any aspect of the submitted work (including, but not limited to grants and funding, participation in the advisory board, study design, manuscript preparation, statistical analysis, etc.).

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