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Original Research Article

The orthopedic patient and limb amputation: impact of traditional beliefs on acceptance in Port Harcourt, Nigeria

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ABSTRACT

Background: Aim of the study was to ascertain the awareness on surgical limb amputation and establish the existence of traditional beliefs that impacts on acceptance of surgical limb amputation in tertiary healthcare facilities in Port Harcourt. Surgical limb amputation is a form of treatment recommended in conditions of dead, dying, dangerous limb or damn nuisance, in which the appendage is removed surgically and permanently from the rest of the body.
Methods: A cross-sectional descriptive study was carried out among patients and patients' relatives in the two government-owned tertiary health care facilities that offered orthopedic surgical services in Port Harcourt using self-administered questionnaires. Data obtained was analyzed using the Statistical Package for the Social Sciences (SPSS) version 20.0.
Results: Safe removal of a disease limb from the rest of the body was considered by 217 respondents (93.1%) as the meaning of limb amputation. Some community beliefs on amputated limb were: risk of incomplete body in the "next world", burying of persons with amputated limb in the evil forest when they die, stigmatization as outcasts in some communities. Eighty-two respondents (35.2%) opined that traditional bone setters should be encouraged to continue their work.
Conclusions: There was high awareness on limb amputation among respondents. Though expressed by few respondents, the twin factors of patronage of traditional bone setters and the practice of community stigmatization of amputees / social isolation among others explains patients decline of offer of limb amputation in the care of orthopedic patients in our society.

Keywords: Acceptance, Nigeria, Patients, Port harcourt, Surgical limb amputation, Traditional beliefs

INTRODUCTION

The relationship between belief systems and health has been severally documented, especially as health implies a state of complete physical, mental, social, (and spiritual) wellbeing and not only the absence of disease or infirmity.[1-8] Also, the impact of education and socio-cultural orientations on individual acceptance of intended forms of treatment has been reported.[9-11] Acceptance of surgical limb amputation will therefore be affected by similar factors depending on the society. Surgical limb amputation is a form of treatment recommended in conditions of dead, dying, dangerous limb or damn nuisance, in which the appendage is removed surgically and permanently from the rest of the body.[12-15] A lot of emotions are known to be involved due to profound

economic, social and psychological effects among these patients.[16-19]

Surgical limb amputation is now an acceptable mode of treatment, though not without initial challenges.[20,21] There was a report of 17th century ethno-religious perception in which there was deep-rooted resistance to planned limb amputation such that it was viewed as dismemberment of the image of God.[22-24] Stigmatization associated with limb amputation also contributes to refusal of this procedure in some societies.[25-28] These perceptions and consequent societal stigmatization may contribute to patients' refusal of offer of therapeutic limb amputation. Common indications for limb amputation vary in different parts of the globe and include complications resulting from diabetes mellitus, trauma, and peripheral vascular disease.[29-33] Traditional bone setters (TBS) are prevalent in many societies especially Africa, and their intervention in fracture care has resulted in complications leading to limb amputation.[34-39]

Community ideas and attitudes are known to affect the health-seeking behavior of a people, and hence utilization of health services.[40] Such community ideas could be religious beliefs, traditional beliefs, or a denial of reality entirely.40 When patients decline offer of surgical limb amputation and end up with negative consequences, is the society often better for it? What in our practice setting are the factors: religious, traditional or otherwise that contribute to making a patient decline offer of life saving amputation? This study is therefore centered on unravelling these issues, and identify factors that are associated with such health behavior.

This study aims to ascertain the awareness on surgical limb amputation and establish the existence of socio-cultural beliefs that affects patients' acceptance of this life-saving procedure in tertiary healthcare facilities in Port Harcourt.

METHODS

It was a cross-sectional descriptive study carried in Port Harcourt the capital of Rivers State, in the Federal Republic of Nigeria. It was done in the male and female orthopedic wards and out-patient clinics two tertiary multispecialty health facilities in Port Harcourt, in the months of May and June 2020. The study was carried out among orthopaedic patients and their relatives.

The minimum sample size was determined using monthly estimated total population of orthopaedic patients in the two hospitals of 170 (obtained from a monthly clinic attendance of 100 per month, and admitting bed space of 70 for both male and female wards).

All the patients and their relatives who gave consent were recruited at the tertiary health facilities with effort made to avoid double administration. A total of 250 semi-structured questionnaires were distributed and 233 questionnaires were retrieved.

Data analysis

Information on the meaning of / awareness of / attitude to limb amputation, community beliefs on amputated limb, opinion on role of traditional bone setters, etc. were collated and analysed using the Statistical Package for the Social Sciences (SPSS) version 20.0.

Ethical approval

The approval of the Research Ethics Committee of the University of Port Harcourt Teaching Hospital was obtained.

RESULTS

A total of 233 respondents were recruited for the survey. The demographic characteristics of the respondents are summarized in Table 1. One hundred and eleven respondents (47.6%) were males and 122 (52.4%) were females. The dominant age range of the respondents was 25-40 years, constituting 113 (48.5%) of the total number of respondents. The number of married respondents was 130 (55.8%), and 95 (40.8%) were of Rivers State origin.

The respondents' awareness of the meaning of limb amputation, reasons for limb amputation, and community perception of limb amputation are indicated in Table 2. Safe removal of a disease limb from the rest of the body was considered by 217 respondents (93.1%) as the meaning of limb amputation, 8 (3.4%) referred to it as a painful operation, while 6 respondents (2.6%) had no knowledge of it. The awareness of the reasons for limb amputation showed that 91 respondents (39.1%) named rotten limb from infection as a strong reason, 87 (37.3%) felt that rotten from injury, 53 (22.7%) asserted that rotten from diabetes and other diseases can lead to amputation. Two hundred and six (88.4%) respondents asserted that artificial limbs were available for people with amputated limb.

Seventy-nine (33.9%) respondents were the opinion that some community believe that those with amputated limb would come back to life in their "next world" with incomplete body. Eleven respondents (4.7%) reported that some communities would bury amputated persons in the evil forest when they die. Twenty-seven (11.6%) respondents reported that amputated persons are regarded as outcasts in some communities. Out of the total number of respondents, only 94 (40.3%) claimed that they were not aware of any community belief that concern those with limp amputation.

The opinions and attitude of respondents to persons who had limb amputation are shown in Table 3. Two hundred and seven (88.8%) respondents asserted that those who have limb amputation have normal potentials like any

other person. Two hundred and twenty-three (95.7%) respondents were of the opinion that doctors who carry out limb amputation for patients are good people and life-savers, although few respondents have ill feelings about them.

The opinions and attitude of respondents to persons who had limb amputation are shown in Table 3. Two hundred and seven (88.8%) respondents asserted that those who have limb amputation have normal potentials like any other person.

Table 1: Socio-demographic characteristics of respondents.

Variables	Frequency	Percentage
Sex		
Male	111	47.6
Female	122	52.4
Age (in years)		
<25	55	23.6
25-40	113	48.5
41-60	64	27.5
>60	1	.4
Marital status		
Single	94	40.3
Married	130	55.8
Separated	3	1.3
Divorced	6	2.6
Religion		
Christianity	212	91.0
Islam	21	9.0
State of origin		
Rivers	95	40.8
Others	12	5.2
Edo	3	1.3
Abia	17	7.3
Imo/Enugu	33	14.2
Delta	9	3.9
Anambra	13	5.6
Cross river/Akwa Ibom	15	6.4
Ogun	4	1.7
Lagos	2	.9
Kano	6	2.6
Bayelsa	6	2.6
Oyo/Osun	2	.9
Kogi / Kwarra	13	5.6
Ekiti/Ondo	3	1.3

Table 2: Respondent's knowledge on limb amputation.

Variables	Frequency	%
Awareness of what limb amputation is		
Safe removal of a disease limb from the rest of the body	217	93.1
Killing somebody	2	0.9
A painful operation	8	3.4
Don't know	6	2.6
What make doctors cut somebody's limb		
When the limb is rotten from injury	87	37.3
When the limb is rotten from infection	91	39.1
When the limb is rotten from diabetes and other diseases	53	22.7
Don't know	2	0.9

Continued.

Variables	Frequency	%
If artificial limb is available for people with amputated limb		
Yes	206	88.4
No	2	0.9
Don't know	25	10.7
Community belief about those who have limp amputation		
They will come back in their next world with incomplete body	79	33.9
They will be buried in the evil forest	11	4.7
They are usually regarded as outcasts in the community	27	11.6
They are regarded as cursed people	22	9.4
Don't Know	94	40.3

Table 3: Opinion and attitude of respondents on limb amputation.

Variables	Frequency	%
Opinion about those who have limp amputation		
They have normal potentials like any other person	207	88.8
They are invalids	14	6.0
No Opinion	12	5.2
Opinion about doctors who do limb amputation for patients		
They are mean or heartless people	2	0.9
They take pleasure in removing people's limbs	2	0.9
They are indifferent to patient's plight	4	1.7
They are good people -- life-savers	223	95.7
No opinion	2	.9
Opinion about Traditional bone setters		
They have a good heart	4	1.7
They charge less than hospital doctors	48	20.6
They are gifted by God	55	23.6
They are in every community	27	11.6
They work better than doctors	2	0.9
They should be encouraged to continue their work	82	35.2
Situation become complicated/spoil people's legs	5	2.1
No Opinion	10	4.3
If needed, will accept surgical limb amputation		
Yes	146	62.7
No	8	3.4
Don't know	79	33.9
If needed, will not accept surgical limb amputation because		
Because of pain	4	1.7
None	229	98.3
If needed, will advise relative to accept surgical limb amputation		
Yes	164	70.4
No	11	4.7
Don't know	58	24.9

Two hundred and twenty-three (95.7%) respondents were of the opinion that doctors who carry out limb amputation for patients are good people and life-savers, although few respondents have ill feelings about them. Eighty-two respondents (35.2%) opined that traditional bone setters should be encouraged to continue their work.

The reason for inclination towards traditional bone setters were due to the facts that they are gifted by God – opined by 55 respondents (23.6%); they charge less than hospital doctors - reported by 48 respondents (20.6%); they are present in almost every community as indicated by 26 respondents (11.6%).

However, 2 respondents (0.9%) felt that they work better than medical doctors, and 5 respondents (2.1%) felt that they could “spoil people's legs”. However, despite of the opinion shade, 146 (62.7%) of the respondents were willing to accept surgical limb amputation if it becomes necessary. Also, 164 (70.4%) respondents affirmed that they would advise their relative to accept surgical limb amputation if needed.

DISCUSSION

The age range of 25-40 years, which forms the dominant age of respondents, seem to reflect the age range of common orthopedic pathologies in our environment such road traffic accidents and bone infections. This is closely followed by age range of 41-60, which represents the range for metabolic disease conditions like diabetic mellitus and peripheral vascular diseases that leads to orthopedic foot gangrene. It is important to note here that participants of Rivers State origin formed less than half of the respondents for this study, indirectly highlighting the diversity of patients patronizing the health facilities.

Most respondents demonstrated some awareness of the meaning of amputation, and majority also asserted to awareness of the existence of prosthesis for amputated patients. This level of awareness is similar to studies reported in Calabar, and Lagos, Nigeria. Majority of participants also opined that amputees could have normal potentials like any other person in society.[41,42] However, less than half of the respondents were of the opinion that some communities believe that those with amputated limb would come back to life in their "next world" with incomplete body, while only few of the study participants claimed ignorance of the existence of such community belief that concern those with limp amputation. This indirectly implies that majority of them knew that amputees suffer some setback from community beliefs. More so, such social isolating community practices like burying dead amputees in the evil forest, regarding them as community outcasts, and the likes, ensure that positive public awareness on amputation fades into insignificance at time of decision-making. These issues therefore best explain why some patients decline the offer of limb amputation even when it is life-saving.

Although majority of respondents were positive in their opinion about the doctors who carry out limb amputation, a few of them thought otherwise. The opinion of a few respondents gives an idea of public opinion showing acceptance of traditional bone setters and their role in society, which has been severally documented.[34,35,43,44] This also offers explanation to why some patients decline the offer of limb amputation in favour of traditional bone setters. Similar thoughts indicating reasons for patronage of traditional bone setters have been reported in earlier studies.[45,46] For this category of patients, their positive awareness on limb amputation and their educational background may again fade into insignificance at the time of decision.

CONCLUSION

There is high awareness on knowledge of limb amputation among respondents. Most of the respondents expressed willingness to accept offer of limb amputation, and also would advise their relatives to accept the same, if it becomes necessary. Though expressed by few respondents, it is obvious that some community beliefs do exist that affect patient that have had limb amputation. Traditional bone setters still have significant role in the care of orthopedic patients in our society, as expressed by some respondents. The twin factors patronage of traditional bone setters and the practice of community stigmatization / social isolation even in death of amputees could explain the decline of offer of limb amputation by some patients.

Recommendation

Deliberate effort should be made by government and nongovernmental organizations to ensure further public education on these issues. Legislations against such harmful community stigmatization and isolations could go a long way to change the trend and impact on acceptance of necessary limb amputation.

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