

The relation between breast reduction and participation in activity, with specific reference to leisure activities

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To the Editor: This prospective study was undertaken to investigate the relationship between breast reduction and participation in leisure activities. Women between the ages of 20 and 40 years who had undergone breast reduction at the Department of Plastic Surgery, Universitas Hospital in Bloemfontein during the period January 2000 to December 2005 were included. Patients who had undergone surgery due to cancer or any other medical condition, or due to cosmetic reasons, were excluded.

The data for this descriptive study were obtained by means of a questionnaire constructed according to a classification by Hanson and Jones, which uses Active leisure, Quiet leisure and Socialisation as categories of activity.¹ The study was approved by the Ethics Committee of the Faculty of Health Sciences, University of the Free State. All participants gave written informed consent. One hundred and five questionnaires were distributed and the participants were requested to return the completed questionnaire as soon as possible.

Twenty-seven patients participated in the study. The median age of the participants was 33 years and the median elapsed time since the breast reduction surgery was 2.0 years. Most of the participants (88.9%) indicated physical discomfort as the reason for the breast reduction, 70.4% indicated self-image problems, 59.3% indicated limited

leisure activity and 18.5% indicated other reasons, such as rheumatoid arthritis, limited social activity, headaches, cervical fusions and mockery by peers.

A total of 66.7% of the participants indicated that they terminated participation in leisure activities before the surgery due to their large breasts. Their participation in leisure activities before and after breast reduction is shown in Table I.

If these activities are divided into active and quiet leisure, participation in any active leisure improved by 53.2%, whilst participation in any quiet leisure improved by 19.6%. Some of the activities listed could also be classified as work activities, such as cooking/baking, shopping, house cleaning/decoration. These activities often have to be executed regardless of constraints due to breast size. This could also account for the lower percentage difference in the paired data. The reason for the significant improvement in the seven activities listed could possibly be related to the unique activity requirements of the particular activities. This needs to be investigated further.


From an occupational therapy viewpoint, the right fit between the activity requirements and the abilities of a participant is an important principle of achieving/promoting activity participation, which is essential for satisfactory occupational performance, health and experiencing quality of life. Most

of the participants (70.4%) started participating in activities in which they had always wanted to participate but had been prohibited by their large breasts.

The motivation for leisure participation, on a scale from 1 to 100, improved statistically significantly from a median of 21 to a median of 83, with a 95% confidence interval (CI) for the median difference of [30; 68]. Satisfaction after participation in leisure activities, on a scale from 1 to 100, improved statistically significantly from a median of 21 to 87, with a 95% CI of [46; 78].

All the participants indicated that they found it easier to participate physically in leisure activities after the surgery. Most of the participants (88.9%) lost weight after the breast reduction. After surgery, the self-confidence of 96.3% of the participants was influenced positively. Almost all of the participants (96.3%) were of the opinion that the surgery should be covered by their medical fund, stating non-cosmetic motivations for their answer.

There can be no doubt that the participants' motivation, participation and satisfaction concerning leisure activities improved after undergoing breast reduction surgery. The relationship between these factors is interactive, each affecting the other positively, creating a positive environment for participation in leisure activities.²

Where surgery alleviates physical discomfort and reduces back pain,³ opportunities are created for participation and improvement of skill in leisure activities. It is recommended that this study continues aiming for a higher response rate and expands to another important area of occupation, namely work. 

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References

- Hanson C, Jones D. Restoring competence in leisure pursuits. In: Trombly CA, Radomski MV, editors. Occupational therapy for physical dysfunction. 5th ed. Baltimore, USA: Lippincott, Williams & Wilkins; 2002. p. 745-57.
- Du Toit V. Patient volition and action in occupational therapy. 2nd ed. Pretoria: Vona and Marie du Toit Foundation; 1991.
- Kerrigan CL. Plastic surgeons seek insurance coverage for breast reduction. Available: <http://susanloved.com/community/flashes/flash2.htm> (Accessed 12/01/2006).

Table I: Specific leisure activity participation before and after surgery (n = 27)

	Activity	Percentage participated		95% confidence interval for the percentage difference for paired data
		Before	After	
Active	Exercise	33.3	77.8	[-56.9%; -19.0%]*
	Racquet Sports	11.1	37.0	[-47.9%; -10.0%]*
	Cooking/baking	66.7	70.4	[-17.9%; 10.6%]
	Shopping	66.7	77.8	[-27.9%; 6.3%]
	Cycling	29.6	44.4	[-31.6%; 3.5%]
	Gardening	29.6	55.6	[-41.5%; -7.3%]*
	Dancing	37.7	40.7	[-13.6%; 6.3%]
	Team sports	3.7	25.9	[-40.9%; -3.9%]*
	Swimming	22.2	59.3	[-53.3%; -15.9%]*
	Travelling	33.3	44.4	[-27.0%; 5.8%]
	House cleaning/decoration	66.7	74.1	[-23.1%; 8.6%]
	Golf	0.0	3.7	[-18.3%; 9.1%]
	Horse-riding	3.7	3.7	[-13.4%; 13.4%]
	Gymnastics	0.0	3.7	[-18.3%; 9.1%]
Quiet	Needlework	33.3	37.0	[-13.9%; 6.5%]
	Board games	29.6	29.6	[-8.5%; 8.5%]
	Church activities	22.2	37.0	[-29.7%; 0.6%]
	Radio/television	74.1	77.8	[-21.4%; 14.2%]
	Movies/concerts	48.2	59.3	[-23.7%; 2.4%]
	Reading	77.8	77.8	[-13.6%; 13.6%]
	Arts/crafts	33.3	33.3	[-12.5%; 12.5%]
	Cosmetics	25.9	44.4	[-33.6%; -2.0%]*
	Bird/game watching	18.5	22.2	[-16.1%; 8.0%]
	Collecting	3.7	3.7	[-13.4%; 13.4%]
Photography	11.1	29.6	[-35.7%; -1.7%]*	

*Statistically significant