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Stimulation of Breast Growth By Hypnosis

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Abstract

A frequent compaint among women is the failure of the breasts to develop to a fashionably desirable size. An experiment was designed to determine whether hypnotic suggestion could influence the physiological mechanisms associated with breast growth. The first phase compared hypnosis with and without suggestions for breast growth in six subjects. The second phase examined the effectiveness of hypnotic suggestions of breast growth in thirteen subjects acting as their own controls. Analysis of the data indicated that hypnosis per se had no direct effect on breast growth, but that hypnosis with suggestions for breast growth was effective in stimulating breast growth. Further investigation may show this to be a satisfactory alternate method to surgical breast augmentation.

The bosom is a major sex symbol in our culture. Because of this, many women are concerned with the appearance of their breasts. Some who feel their breasts are too small, sag an unusual amount, or otherwise deviate measurably from the ideal image, often feel deformed or suffer anxiety and self-consciousness. Since the female breast currently holds a place of prominence as an index of female sexuality in our culture, a frequent complaint among women is the failure of the breasts to develop to a fashionably desirable size. In keeping with other American values, "big" is equated with "good" (Winch, 1952). To this end, manufacturers of foundation garments claim styles designed to "lift", "separate", "pad", "cradle", "form", and "shape" in such a way that they enhance the contour of the breasts and give the impression of greater size.

Superficial enhancement of this sort has never been completely satisfactory to all women. The extent to which females are concerned with exhibiting breasts deemed provocative and desirable by popular standards is reflected in the variety of mechanical exercisers, cosmetic preparations, and surgical procedures which have been employed from time to time in an effort to produce lasting enlargement of the breasts.

The paucity of empirical data which might support the effective-

ness of mechanical exercisers precludes an evaluation of their worth. Little more is available regarding the effectiveness of cosmetic preparations. Estrogen creams applied to the breasts usually result in stimulation of the nipples, but there is little, if any, resultant breast growth in the woman who has normal circulatory levels of estrogen. Simultaneous administration of prolactin and estrogen in large amounts may stimulate the breasts of the normal woman, but evidence for this is not good (Lloyd and Leatham, 1964; Lloyd, 1964, 1968).

Early attempts at surgical breast augmentation were effective for a time, but ultimately proved to be either troublesome, uncomfortable, or harmful. Fatty tissue from the buttocks grafted beneath the breasts was successful for a time, but in some instances the fat was absorbed into the system, leaving the breasts reduced to their previous size. Injections of paraffin tended to migrate from one part of the breast to another, and to form lumpy deposits. Injections of liquid silicon appeared successful in increasing the breast size, but the Food and Drug Administration forbade its use because it was felt it might not be safe.

An apparently successful solution was an operation involving the implantation of a flexible silicon rubber bag filled with liquid silicon between the breast tissue and the chest wall. After healing, breasts treated by this method retained the natural feel and appearance of untreated breasts (Brown, 1968). The disadvantages of this procedure are that the operation necessitates hospital confinement of about one week, and is relatively expensive.

Normal maturation and growth of the female breasts depends on the development and functioning of the pituitary-gonadal-adrenal mechanism in the production of gonadotropic hormones. There are temporary imbalances in the amounts of the numerous hormones secreted during the period of development, as well as individual differences in the responsiveness of the sexual end-organs to the various hormones (Brasel and Blizzard, 1968).

The anterior pituitary controls the activity of the final effector organ, but it is regulated by the hypothalamus. Nerve pathways exist which bring the hypothalamus under the influence of the "viceral brain", which is recognized to be the anatomic substrate of emotion. It is through these pathways that emotional states can alter gonadotropic function (Reichlin, 1968).

Hitschmann (1928) reported such changes in his analytic treatment of frigidity. In the woman he treated, he found such masculine signs as flat breasts, little mustaches, and large hands. Hitschmann did not consider it proven that there was a change in the endocrine metabolism in these women when they changed during an analysis, but the breasts grew and the figure became better rounded. Groddeck (1921) and Deutsch (1926) reported cases in which psychic factors were decisive in producing breast growth. During psychoanalysis in these cases, anomalous breast changes occurred in women in whom one breast had been retarded in development

Mohr (1925) reported the case of a girl in whom strong emotions during puberty resulted in a psychically conditioned inhibition of pubescence for a period of ten years. When psychotherapy was initiated, pubescence was completed in a few months, with menses, development of the breasts, increase of the thyroid, and disappearance of hairiness of the chin which had been present at the beginning of treatment. Mohr expressed no doubts that endocrine factors had played a considerable role as a connecting link, but was equally certain that the psychic factors were primary, activating the endocrines secondarily. Mohr stressed the fact that here "psychic" is by no means synonymous with "suggestion"; that this psychosomatic interaction occurred without any suggestion.

That suggestion can play an active role has been more than amply demonstrated, however. Hypnotic suggestion can produce a variety of effects which transcend normal voluntary capacities. Even in light hypnosis there is increased control over the autonomic nervous system, and all the glands and organs it supplies. It is practicable to influence any reactive system within the organism. Many of the phenomena which have been reported lend evidence to the thesis that hypnotic suggestion can bring about psychobiological changes in the organism which are quite impossible to obtain in the waking state (Gorton, 1949; Reiter, 1965; Van Pelt, 1964; Weitzenhoffer, 1951; Wolberg, 1948).

Among these phenomena, hypnotic regression is one of the most remarkable. There is evidence that when some individuals are regressed, experience and behaviors which existed at the earlier age are reactivated, and the organic conditions of that period may be reestablished. Wolberg (1945) described this as an actual organic reproduction of an earlier period of life in which past patterns of ideation

and behaviors are revived. Experiences subsequent to the regressed age appear to have no influence on the subject's awareness or behavior (Le Cron, 1965; Norgarb, 1965; Weitzenhoffer, 1957 Wolberg, 1948).

Kupper (1945) reported appearance of a pre-convulsive normal electroencephalogram in an epileptic patient during hypnotic regression to an age that pre-dated the onset of his epilepsy.

Girdo-Frank and Bowersbuch (1948) reported the recovery of the Babinski sign of plantar dorsiflexion in three adult subjects regressed to the age of five or six months. They also found that changes in peripheral chronaxie accompanied the change in plantar reflex. Le Cron (1965) confirmed their findings, using three different subjects. At the regressed age of five months, he also found that the sucking reflex of infancy revived.

Conversely to age regression, Erickson (1954) employed a technique of "time projection" as an hypnotherapeutic procedure. With this procedure of orientation into the future he reported the patient was able to achieve a view of what he believed at the moment he had already accomplished.

Klemperer (1953, 1954) reported on changes of the body image in directed regressions and visualizations during hypnoanalysis. She reported the occurrence of seen and felt changes in tissue, organs, and body systems, accompanied by perceptions and emotions.

Research suggests that these hypnotic procedures of age regression, time projection, and changes in body image may produce psychological phenomena which are capable of stimulating a variety of physiological responses. The purpose of this study was to determine whether these procedures could influence the physiological mechanisms associated with breast growth to produce a significant increase in breast size in an adult female population

Method

Subjects

The subjects consisted of nineteen volunteer female university students. Five were graduate students and the remaining fourteen were undergraduates. Subjects ranged in age from eighteen to forty years, with a mean age of twenty-four years. Fifty-three per cent of the

subjects were married. Of the married subjects, sixty per cent had borne children. Sixty per cent of the married subjects and fifty-five per cent of the single subjects reported they were taking birth control pills. The age of menarche ranged from nine years to fifteen years, with a mean age of twelve years. All subjects reported their weight had been constant (within five pounds) for a minimum period of six months preceding the experiment.

Apparatus

Measuring apparatus consisted of Starett ten-inch outside calipers, Johnson No. 46 vernier calipers, and a seventy-two inch flexible measuring tape.

Procedure

The study consisted of two phases. The first phase was a pilot study designed to compare two treatments. The experimental group consisted of three subjects who were hypnotized once weekly and received suggestions for breasts growth. The control group consisted of three subjects who were hypnotized once weekly, but received no suggestions for breast growth.

At the initial treatment period of each subject, the expired breast measurements were taken around the bust on the horizonal plane of the nipples. Each subject, under the direction of the experimenter, took the measurements of another subject during the initial and all subsequent treatment periods. In addition, all measurements were verified by a third subject. Then hypnosis was induced and suggestions were given.

The suggestions given to each subject in the control group consisted only in the establishment of a variety of sensory hallucinations. The suggestions given to each subject in the experimental group consisted of regression to a period when the breasts were developing, and the sensation of breast growth was suggested during this period. Then suggestions of time projection to an unspecified future date were given and the subject was directed to visualize her body image with increased breast size.

Treatment periods averaged about one hour, and were continued for a period of twelve weeks. Each subject's expired breast measurements were recorded at each of the weekly hypnosis sessions. The

same suggestions each subject received during the initial treatment period were repeated at each subsequent session.

The second phase of the study involved the remaining thirteen subjects. These subjects acted as their own controls to determine the effectiveness of hypnotic suggestion in breast enlargement.

Each subject's breast measurements were taken weekly for a period of three weeks to establish a baseline prior to the initiation of the treatment procedure. Inspired and expired measurements were taken around the bust on the horizontal plane of the nipples. Expired measurements were taken around the chest on the horizontal plane immediately below the base of the cup of the breasts. Measurements were also taken from the base of the cup to the nipple, from the sternum to the nipple, from the lateral periphery to the nipple, and the span from nipple to nipple. Each measurement throughout the baseline and treatment procedure was made by the experimenter and confirmed by the subject, and verified by a second subject.

During the baseline period no hypnosis was induced, and no suggestions were given for breast growth. Immediately following each subject's final baseline measurements on the third week, hypnosis was induced and the treatment procedure was initiated.

The treatment procedure consisted of a series of suggestions for regression to a period when the breasts were developing, and the sensations of breast growth were suggested during this period. Suggestions were then given for time projection to an unspecified future date, and the subject was directed to visualize her body image with increased breast size.

Treatment periods averaged about one hour, and the treatment procedure was followed once weekly for a period of twelve weeks. Immediately following each treatment procedure, the same measures used to establish the subject's baseline were taken and recorded. The same suggestions given during the initial treatment period were repeated at each subsequent treatment period.

Results

The first phase examined, in the pilot study, whether hypnosis with suggestions for breast enlargement was significantly more effective in stimulating breast growth than was hypnosis without specific suggestions for breast enlargement.

The criterion for effectiveness was an increase in the breast

measurements of the subjects between the initiation and termination of the treatment procedures. There was no change in any of the subjects in the control group, while all subjects in the experimental group experienced an increase in breast measurement. Average increase was one and five-eighths inch.

Differences between the treatment groups were examined using the Mann-Whitney U test described by Siegel (1956). Results indicate there was a significant difference ($U = 0$, $p. < .05$) between the control group (weekly hypnosis without suggestions for breast enlargement) and the experimental group (weekly hypnosis with suggestions for breasts enlargement).

The second phase provided a further examination of the effectiveness of hypnotic suggestion in the stimulation of breast growth.

Criterion for the effectiveness of the treatment was an increase in breast measurements. Expired breast measurement taken on the horizontal plane of the nipples was selected as the primary index of breast enlargement.

Each subject's record of breast measurements for the three weeks prior to initiation of the treatment procedure was averaged, and this mean was used as the baseline measure. The breast measurements taken during the last three weeks of the treatment procedure were averaged and this mean was used as the treatment measure.

All breast measurements were recorded in fractions of an inch. To facilitate machine computation, decimal equivalents were substituted for all fractions of an inch.

Baseline expired breast measurements ranged from 30.21 inches to 39.08 inches, with a mean measure of 33.64 inches. Treatment expired breast measurements ranged from 32.33 inches to 41.33 inches, with a mean measure of 35.75 inches. The mean increase for the group was 2.11 inches. Individual increases ranged from a minimum of 1.00 inches to a maximum of 3.54 inches. Table 1 presents the data on the individual breast measurement means for the second phase.

Paired comparisons of baseline and treatment data were examined, using the Wilcoxon signed-rank test described by Siegel (1956). An analysis of the data indicated there was a significant increase in breast dimensions following the treatment procedure ($T=0$, $p.<.005$).

As a control measure, expired chest measurements taken at the base of the breasts concurrently with the expired breast measurements were compared. Baseline expired chest measurements ranged

TABLE 1
Expired Breast Measurements

Subject Number	Baseline Mean	Treatment Mean
101	34.04	35.29
102	33.96	35.42
103	33.08	35.67
104	33.58	35.50
105	34.04	36.17
106	39.08	41.33
107	31.92	33.83
108	33.25	35.91
109	37.04	40.58
110	30.21	32.33
111	33.17	35.33
112	32.00	33.00
113	31.96	34.33

from 28.00 inches to 35.00 inches, with a mean measure of 29.94 inches. Treatment expired chest measurements ranged from 27.00 inches to 34.00 inches, with a mean measure of 29.27 inches. The mean decrease for the group was .67 inch.

The remainder of the breast measurements taken were examined, and a comparison of baseline and treatment means of these measures is presented in Table 2.

Discussion

In phase one, which was primarily a pilot study, no increase in breast measurements was observed in the control group when they were hypnotized weekly without suggestions for breast growth. All subjects in the experimental group exhibited an increase in breast measurements when they were hypnotized weekly with suggestions for breast growth.

Several extraneous variables were held constant for both groups. The control and the experimental group each contained one married and two single subjects. Each of the married subjects had borne children. Each group included one subject over thirty years of age. The average age in each group was twenty-seven years, and the average age at menarche in each group was twelve years, with none occurring earlier than eleven or later than thirteen years.

Since the experimental and control groups were approximately

TABLE 2
Supplemental Breast Measurement Means

Area of Measure	Baseline Mean	Treatment Mean
Nipple to cup base		
Left breast	2.40	2.50
Right breast	2.33	2.55
Nipple to sternum		
Left breast	4.15	4.25
Right breast	4.17	4.29
Nipple to lateral periphery		
Left breast	3.96	4.33
Right breast	3.96	4.36
Nipple span	8.03	8.23

equal in marital status, child bearing, age, and age at menarche, it does not appear that these factors influenced the results to any significant degree.

This preliminary evidence suggests that hypnosis per se had no direct effect on the breast enlargement, but that hypnosis with suggestions for breast growth was effective in stimulating breast enlargement.

In the second phase, each subject acted as her own control in examining the effectiveness of hypnotic suggestions in stimulating breast growth. Baseline data taken prior to treatment was compared with the data of the last three weeks of treatment and it was determined that increases in individual breast measurements ranged from one to three and one-half inches. All subjects experienced enlargement following treatment, with an average increase of two and one-eighth inches.

Expired chest measurements were taken weekly to determine if the increase in breast measurements might be due to enlargement of the rib cage or upper torso. To the contrary, it was found that the chest measurements decreased an average of five-eighths on an inch in association with the increase in breast measurements. Supplementary breast measurements indicate the increase in breast size was symmetrical, with average increases of about one-eighth of an inch from the cup base to the nipple and the sternum to the nipple, three-eighths of an inch from the lateral periphery to the nipple, and one-fourth of an inch in the span of the nipples.

An examination of the background data failed to disclose any

factor which might have significance in selecting the population with which this particular procedure might be most effective. The average increase in breast measurement was somewhat less in the married subjects than in the single subjects, but married subjects who had borne children exhibited slightly larger average increases than those who had not.

There were no significant differences in breast growth between subjects who were taking birth control pills and those who were not. Two subjects discontinued birth control pills midway through the procedure without noticably altering their growth curve.

The only variable which might appear to influence the degree of breast enlargement was the age of menarche. The subjects who had an age of menarche of eleven years or less showed an average increase of about one and one-fourth inch, compared to the group average of two and one-eighth inches. However, with a sample of only four subjects in this category, little can be inferred from this data without further investigation.

The basic method of hypnotic induction used was a variation of the hand levitation procedure described by Wolberg (1948). No attempt was made to achieve stability in depth of hypnosis between subjects, since one of the extraneous considerations of the study was to determine if depth of hypnosis was a significant factor in the degree to which suggestions could influence breast growth. Since some subjects who were not able to achieve deep hypnosis showed a greater increase in breast size than some who were, it appeared that depth of hypnosis was not a significant factor.

No attempt was made to verify true regression by test. It was not considered that the presence or absence of true regression would influence the outcome of the procedure.

It was not within the scope of this paper to determine what, if any, changes in the hormonal sphere were brought about through the treatment procedure investigated. Whatever the psychobiologic changes which are involved in the mechanisms associated with breast growth, it appears a reality that hypnotic suggestions can influence them to a significant degree.

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