Use of a formula to assess patient satisfaction and expectations through neuro-linguistic programming

Utilização de uma fórmula para verificar a satisfação do paciente, analisando a expectativa e associando programação neurolinguística, para potencializar os resultados

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Introduction: A major concern of patients who are candidates for a plastic surgery is failure to achieve expected results. Neuro-linguistic programming (NLP) provides an understanding of the structure of language, clues about how people think, and how these patterns of thought affect behavior. The objective of this study was to validate the use of a formula based on NLP to assess patient satisfaction and expectations. Methods: NLP techniques were employed to improve communication and assess patient expectations. Using NLP, the average number of surgeries performed in the past 5 years and the reappraisal index were compared with those in the previous 5 years, in which the methods described in this article were not employed. Results: The average annual growth rate in the previous 5 years was 5% and the average rate verified after introduction of NLP methodology increased to 10%; the reappraisal and additional surgery index decreased from 20% to 10% in the same period. Conclusions: The use of NLP helped us to understand patient expectations in a more consistent manner for the periods analyzed, significantly increasing the number of operated patients and reducing the rate of reappraisal and additional surgeries.

Keywords: Reconstructive surgical procedures; Neuro-linguistic programming; Life expectancy adjusted to quality of life; Patient satisfaction; Communication.
What the patient ultimately wants is to have his/her needs met.

Neuro-linguistic programming (NLP) is the study of how both verbal and non-verbal language affects our nervous system, and its aim is to elicit excellence in humans. NLP offers understanding of the structure of language, clues about how people think, and how these patterns of thought affect behavior.

Rapport is a concept in a branch of psychology that refers to a technique used to create a connection of attunement and empathy with another person. This word derives from the French word rapporter, which means “bring back.” Establishing a good rapport is essential.

Customers who complain too much are described as difficult but wish to remain faithful to their physician. Complaints are opportunities to rectify a customer problem, which generation of loyalty in direct proportion to the degree of commitment to solve the problem.

On the other hand, while dissatisfied customers may not be sufficiently motivated to complain,
great majority are displeased enough to silently change
to another professional at the first opportunity\textsuperscript{2,3}. 
Ironically, the problems of non-claimants are, in 
general, easiest to resolve\textsuperscript{2,3}.

Facilitation of communication and providing an 
opportunity for expression is essential. 
In a recent study promoted by the Brazilian 
Society of Plastic Surgery, the greatest concern of 
Brazilians in regard to plastic surgery (42\%) is failure 
to attain the expected result\textsuperscript{7}.

The analysis of the result is very subjective and 
the perception of a good result may differ between the 
surgeon and the patient.

**OBJECTIVE**

The objective of this study was to validate the use 
of a formula based on NLP to assess patient satisfaction 
and expectations.

**METHODS**

Lele and Sheth\textsuperscript{8}, marketing professors in 
the USA, published an equation used to determine 
customer satisfaction: \textsuperscript{1,8}

\[ \text{Satisfaction} = \frac{\text{Perceived Performance (P)}}{\text{Expectation (E)}} \]

If the perception of the outcome of surgery is 
equal to the expectation of the patient, he/she will 
normally be satisfied (P\(=\)E).

When the perceived result exceeds the 
expectation, the patient will be delighted and would 
not hesitate to refer friends and family to the surgeon 
(P\(>\)E).

On the other hand, if the outcome of surgery 
does not meet expectations, the patient will become 
disenchanted and frustrated, and this is when problems 
arise (P\(<\)E).

If the expectation is too great, it will be very 
difficult to satisfy the patient.

A low expectation only exists in situations of 
subsistence or total impossibility of choice\textsuperscript{1}.

To maintain consumer satisfaction, the 
relationship between performance and expectation 
must be carefully observed.

It was found that customers were willing to pay 
more for products that would make them happier\textsuperscript{1}.

The great challenge is to diagnose what is the 
expectation of the patient and make him/her understand, 
unequivocally, the limits of the results, generating 
a realistic expectation about what surgery can offer.

The preoperative photographs and the terms 
of informed consent are indispensable, but despite 
providing some legal protection, do not guarantee 
patient satisfaction.

The patient does not always give proper attention, 
despite the apparent understanding of what has 
been explained.

Using NLP techniques, we can ask questions and 
observe the reactions that can ensure that what has 
been explained was completely understood\textsuperscript{4,5}.

After explanations about the medical procedures, 
we must say that it is very important that the patient 
understood what was explained.

Asking the patient to repeat what was explained 
is efficient, but can cause conflict, because it may 
appear that we’re doubting of his intellectual capacity.

There are techniques in NLP, including “anticipated experimental results,” which function well 
in these cases. We ask the patient to imagine himself 
after the surgery and ask for a description of how he 
sees himself and what the surgery would accomplish. 
This is one way to establish beliefs or experiences that 
one wants in the future\textsuperscript{4}.

One should also ask if there is any part of him that 
is against the change, fully and completely. It helps to 
check if there are any limiting beliefs, whether religious 
or not, as, for example: “God made me like this and I 
have to accept this fact?”\textsuperscript{4,5}.

The use of metaphors, by telling a story of a patient with similar appearance that generated a 
positive but realistic result, can be of great value to 
create a non-fantastical outcome\textsuperscript{1}.

You may ask: “What has prevented you from 
making this change in the past?”\textsuperscript{4}.

“Bodily Movements Corresponding to Internal 
Representations” are particularly useful.

If the patient’s gaze is directed upwards, he is 
building or remembering; if looking down, one can 
assume that he is in internal dialog, where there may 
be conflicts. In this case, explain again the important 
information or reschedule a visit, to include a family 
member who can confirm that the explanations were 
clearly offered and understood\textsuperscript{4,5} (Figure 1).

According to the direction of the eyes, one can understand how the representative systems of the 
patient are at the moment of consultation, whether 
more visual, auditory, or kinesthetic (those that center 
their experiences in physical demonstrations, like 
touch).

Patients with psychiatric disorders, such as body 
dysmorphophobia, or those with any change that they 
do not want to resolve because they generate attention, 
affection, and care of relatives, called “secondary 
emotional gain”, also need to be diagnosed in the 
preoperative consultation. These patients require
attention from a professional in the field of psychiatry or psychology, because they do not respond coherently to normal issues.

**RESULTS**

We have used NLP for 5 years and found a favorable evolution in the number of operated patients, compared to the previous 5 years. The average annual growth rate in the previous 5 years (November 30, 2007 to November 30, 2012) was 5%, and the annual average verified after the introduction of NLP methodology (December 1, 2012 to December 1, 2017) has increased to 10%.

Our index of reappraisal and surgical complementation was reduced from 20% to 10%, respectively, in the periods evaluated.

Many doctors have an efficient approach based on personal experience, intuition, or what was learned in training services for residents. Analogous to digital marketing, one can define a conversion rate by the percentage of patients who underwent surgery after an initial consultation.

The growth of the conversion rate would justify a significant increase in the number of surgeries performed.

Tsimtsiou et al., in 2017, reported a survey using non-technical knowledge, including NLP among dermatologists, and observed a positive response in managing difficult patients, with a more conscious use of nonverbal communication and an improvement in the assessment of diseases through the eyes of the patients.

Among psychoanalysts, the use of NLP is not yet consensual, based on the difficulty of subjective analysis of results.

Witkowski, in 2010, selected articles on NLP and found that 54.5% of scientific articles did not support the concept, while 18.2% supported NLP and 27.3% showed uncertain results as to its use.

**CONCLUSION**

The use of NLP helped us to understand patient expectations in a more consistent manner, significantly increasing the number of operated patients and reducing the rate of reappraisal and additional surgeries.

Despite the broadly favorable results, an assessment for a longer period of time and with a greater number of patients is still required.

**COLLABORATIONS**

MTRC Analysis and/or interpretation of data; statistical analysis; final approval of the manuscript; data collection; conception and design of the study; project management; methodology; carrying out the operations and/or experiments; writing and preparation of the original; writing; review; and editing.

DU Analysis and/or interpretation of data; final approval of the manuscript; supervision.

**REFERENCES**


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