

HYPNOTIZABILITY AND PERFORMANCE AT EXAMINATION A CORRELATIVE STUDY

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Summary : Hypnotizability of 45 medical students was assessed by applying the Harvard Group Scale of Hypnotic Susceptibility, Form : A (HGSHS : A) of Shor and Orne. Comparison of hypnotizability with performance of the students at a test examination evolved a significant positive correlation ($r=0.59$). The prevalent misconception that only psychologically weak or sick people with poor intelligence are hypnotizable is disproved. Probable causes, responsible for such a relationship between hypnotizability and performance at examination are discussed.

Key words : hypnosis

hypnotizability

INTRODUCTION

Hypnosis is a complex process of attentive receptive concentration (18) and capacity of an individual to experience hypnosis - variously referred to as hypnotizability, hypnotic capacity or hypnotic susceptibility - is a stable and measurable trait (7,13,15, 17,21). Clinically hypnotizability is generally measured by assessment of the degree of responsivity of test suggestions following hypnotic induction. One of the standard procedures for group testing is the Harvard Group Scale of Hypnotic Susceptibility, Form : A (HGSHS : A) of Shor and Orne (15), which is used frequently in search for the correlates of hypnotizability (e.g. 14,19).

As the fruitful scientific studies have proliferated all over the world, during last three decades, hypnosis is now emerging from a somewhat murky association with quackery. Yet, some myths and misconceptions prevail regarding it, even amongst the educated people and medical professionals, in our country. One of the most prevalent belief is that, only the people who are psychologically weak or sick and have

poor intelligence are hypnotizable. Actually, the hypnotic susceptibility has, in general, been associated with mental health, rather than mental illness in recent research (2,11,12,16,17,20). Some studies have also reported a positive correlation of hypnotizability (or suggestibility) with intelligence (1,3,5,6,9,22). One such study from our country (10) also has reported high correlation between hypnotizability scores and performance at the University examination.

Though, performance at examination involves various aspects, viz. new learning, memory and recall, imaginative involvement, creative thoughts, concentration, achievement motivation, test anxiety and many more personal and situational factors, in general it can be considered that performance at examination reflects mental health (absence of mental illness), and level of intelligence.

The present study was, therefore, undertaken with the aim to examine the probability of any positive correlation between hypnotizability and intelligence - as indicated by the performance of students at the test examination.

MATERIAL AND METHODS

Fortyfive medical students of both sexes, between 18 and 20 years of age volunteered as subjects for the present study.

After preliminary remarks regarding the process of hypnosis, subjects were informed that they were to be administered a standard set of suggestions, following hypnotic induction, for assessing susceptibility to hypnosis, and that following this they would be required to comment on their experience in response cards which had been distributed to them at the start of the session.

The subjects were then given a standard presentation of HGSHS ; A by the experimenter after induction of hypnosis by eye fixation and progressive relaxation. The 12 items on HGSHS : A administered, in order, were: head falling, eye closure, hand lowering, arm immobilization, finger lock, arm rigidity hands moving, communication inhibition, hallucination, eye catalepsy, posthypnotic suggestion, and amnesia. Upon completion of the response cards, the experimenter thanked subjects for their participation and terminated the session.

Percentage of marks secured by each subject at the last terminal examination were obtained from the departmental records.

RESULTS

The subject's responses to HGSHS : A were scored in the following standard manner : First eleven items were scored according to subject's self-report and received a score of one if subjects indicated that they had made the behavioral response suggested in the card and a score of zero if they had not met the behavioral criterion in question. Item 12, amnesia, was scored 1 if fewer than 4 of the items were recalled by subject (and 0, if more than 4 items recalled) before the signal to remember was given. The scores on the 12 items were summed to yield a scale score with a maximum of 12; wherein, scores of 0-4, 5-7, and 8-12 indicated low, moderate, and high hypnotizability respectively.

The subjects were grouped into A, B, and C according to their performance at examination (Table I). Number and percentage of subjects with low, moderate, and high hypnotizability in each of these three group are presented in Fig. 1 and Table I.

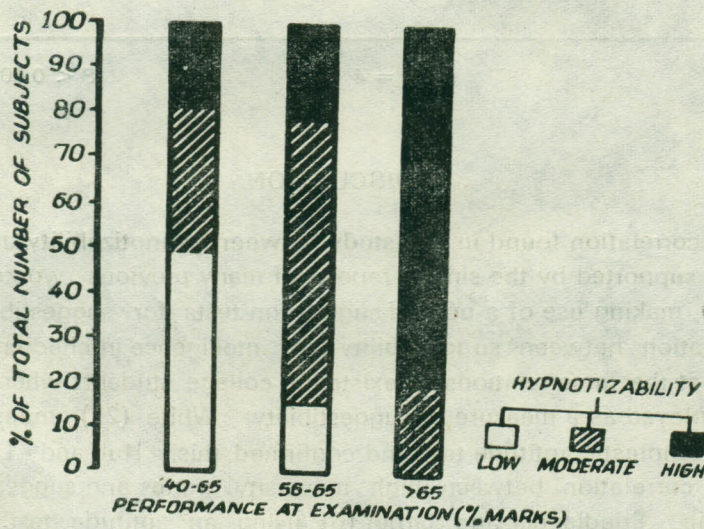


Fig. 1 : Hypnotizability and performance at the test examination.

Statistical analysis of the data, applying χ^2 test, gives a significant ($P < 0.005$) positive correlation between hypnotizability and performance of students at the test examination ($r = 0.59$).

TABLE I : Hypnotizability and performance at the test examination.
(Correlation of coefficient, $r = 0.59$).

% Marks	Hypnotizability groups (HGSHS : A Score)						Total
	Low (0-4)		Moderate (5-7)		High (8-12)		
	N	%	N	%	N	%	
40 - 55 (A)	8	50.0	5	31.3	3	18.7	16
56 - 65 (B)	3	15.8	12	63.1	4	21.1	19
Above 65 (C)	0	00.0	2	20.0	8	80.0	10

$\chi^2 = 16.13$ d. f. = 4 P < 0.005

DISCUSSION

Positive correlation found in this study between hypnotizability and performance at examination is supported by the similar reports of many previous workers. Aveling and Hargreaves (1), making use of a pool of suggestion tests for suggestibility have shown a positive correlation between suggestibility and intelligence in children. Barry *et al.* (3) have shown that the same relationship existed in college students when hypnotic susceptibility was employed as a measure of suggestibility, White (22) measured intelligence by means of a scholastic aptitude test and confirmed this. Hull and Life (9) reported a small positive correlation between high university grades and suggestibility to postural sway suggestion. Friedlander and Sarbin (6), using an aptitude test, observed a small positive correlation between good scores on this test and suggestibility as measured by a battery of tests, but only in women. Curtis (5) has made a careful study of the relationship of intelligence to hypnotic susceptibility, using the Stanford-Binet test for the former and a scale very much like that of Husband and Davis for the latter. He found a highly positive correlation between the two.

Apart from these, several authors have reported that, as a group, psychotic patients are not hypnotizable (2,11,20). Lavoie and Sabourin (12) noted the absence of highly

hypnotizable persons among a population of schizophrenic patients and some others (16,17) reported significantly lower hypnotizability among patients with thought, character, and affective disorders.

All of these, including the results of present study disprove the popular misconception that only psychologically weak or sick people with poor intelligence are hypnotizable; and support the recent notion that hypnotizability is a sign of mental health rather than mental illness. However, one must bear in mind, that some normal persons are simply not hypnotizable (18).

J.R. Hilgard (8) pointed out that hypnotizability is related to a person's capacity for imaginative involvement, and the latter being one of the aspects of learning and memory, one can explain similar relationship of hypnotizability with performance at examination.

Spiegel and Spiegel (18) have mentioned that people with low and high hypnotizability generally fit into Apollonian and Dynonsian features respectively - taking a lead from Benedict (4) in describing differences in personality style. People with Apollonian features have an attention that is usually divided among different issues at the same time, while the Dynonsians are prone to such an intense absorption when they concentrate that they become momentarily disoriented when the task, play, or movie is over. Again, the latter also have exceptionally good memories. Concentration and memory being the two important aspects of learning, could affect the performance at examination. These facts explain the positive correlation between hypnotizability and performance at examination.

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