

lation, histogram, expected frequency values of death, and the chi-square test of significance. Frequency distributions of postmyocardial infarction mortalities were delineated per hour, by 2-hour and 4-hour intervals, and by 8-hour shift. The hours of highest and lowest postmyocardial infarction fatalities were determined.

Results

There were no significant differences in the death rates per 8-hour shift or by 4-hour time intervals. However, there were significant differences ($p < .05$) in the postmyocardial infarction death rates between individual hours and between bi-hourly periods. There were six 1-hour and one bi-hourly time intervals when more fatalities occurred than expected.

The highest postmyocardial infarction death rate occurred between 7 and 8 PM. Other hours with notable increases in postmyocardial infarction mortality were 12 AM, 8 AM, 11 AM, 6 PM, and 10 PM. The hour with the lowest incidence of postmyocardial infarction mortality was 5 PM. The 2-hour interval with the highest postmyocardial infarction mortality rate was between 6 and 8 PM. The 7 AM to 3 PM shift had the greatest number of postmyocardial infarction fatalities; however, this was not statistically significant.

NONVERBAL BEHAVIORS: TESTING POTENTIAL CANDIDATES FOR A BODY LANGUAGE

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The purpose of the research was to compare the frequency and duration of 17 nonverbal behaviors as they occurred in six time periods of videotaped schizophrenic-normal interactions. These particular behaviors were tested because the literature reported they could be significant in establishing relationship meanings and could therefore be considered a part of a body language. It was also important to determine if the time phase of an interaction affected the type of nonverbal behaviors shown.

The research was conducted from September 1979 to January 1980 at the University of Illinois Institute of Communications Research in Urbana and at the University of Illinois College of Nursing, Chicago. Inquiries may be sent to Sally Brosz Hardin, Assistant Professor, Psychiatric Nursing, University of Illinois Medical Center, 845 S. Damen Ave., Chicago, IL 60612.

Theoretical basis

Interpersonal communication was viewed as a dynamic, reciprocal process rather than a series of exchanged messages or a stimulus-response event. Meerloo, Reusch, and Scheffen describe interpersonal communication as a system in which symbols about the self, the other, and the self-other relationship are created and shared. This approach, since it is based on behaviors and meanings, makes the distinction between nonverbal behavior and nonverbal communication. This model also calls for discrete units of nonverbal behavior to be identified prior to research observation, eliminating the view that nonverbal communication is the

mere transmission of attitude that can be evaluated by external judges.

Methodology

Videotapes of normal, schizophrenic, and normal-schizophrenic 30-minute interactions were analyzed with a PLATO IV computer that retrieved the frequency and seconds duration of 17 nonverbal behaviors for 12 interactors and six time periods. A nested analysis of variance tested a null hypothesis that there would be no difference in the nonverbal behaviors for either the time periods or the two types of interactors.

Results

All communicators' crossing of legs and arms was significantly affected by different time periods of the 30-minute interactions. Communicators' leg crossing gradually increased until it reached a peak at the midpoint of the interactions; this behavior then gradually decreased. Arm crossing,

which occurred about half as frequently as leg crossing, showed a similar pattern.

Four nonverbal behaviors distinguished normal and schizophrenic communicators: direct gaze, crossed arms, crossed legs, and hand gestures. Although the intensity of eye gaze was relatively constant for communicators until the last time period (when it decreased), schizophrenics showed significantly less. Normals frequently crossed their arms, especially at the midpoint of the interactions, but schizophrenics rarely did. Instead, schizophrenic arm-bookending (an extension of one arm, as if to block off communication space) was prevalent, especially in the beginning and 20th minute of the interactions. Schizophrenics had significantly more leg crossing but fewer hand gestures than normals. Certain nonverbal behaviors previously shown to communicate positive affect (ie, smiling, head wags, torso to the other communicator, and legs to the other communicator) were not different for these normal and schizophrenic communicators.