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Brief Report

Psychological Training of Emergency Medical Technicians: An Evaluation

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One of the strategies in community psychology for expanding mental health manpower has been to identify groups of individuals at the "psychological frontlines" and to train them in psychological intervention skills (Bard, 1976; Cowen, 1982). Emergency medical technicians (EMTs) may be such a group because they respond immediately to unpredictable psychological crises and are the authority figures responsible for managing these unforseen events. Survey data from five metropolitan areas of Georgia suggest that behavioral or emotional problems account for 15 to 40% of EMT emergency responses (Hampton, 1980).

Despite the potential benefits of training EMTs in psychological intervention skills, EMTs typically are not taught how to respond to individuals in psychological crisis. Scheib (Note 1) has suggested that failure to provide this experience is *the* major weakness in the training of EMTs. If psychological training is to be offered to EMTs it must be very brief since it will have to compete timewise with many nonpsychological programs (Morando, Note 2). Therefore, the purpose of this study was to develop, implement, and empirically evaluate a replicable training program that could be taught to EMts within two 4-hour evening sessions.

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METHOD

Subjects

The subjects were 36 college students enrolled in two State of Ohio EMT training courses taught by different medical instructors; 17 subjects were female and 19 were male. The age range was 18 to 26 with a mean age of 19.8. Approximately 50% of the males and 50% of the females from each EMT class were randomly assigned to the psychologically trained condition (n = 19); the remaining subjects were assigned to the psychologically untrained condition to serve as conrtols (n = 17).

Procedure

After the majority of medical training in the EMT classes was completed the first author conducted two 4-hour training sessions for subjects in the psychologically trained condition. The content and organization of the training sessions followed the detailed instructor manual that was developed as part of this study.[2] Trainees were instructed in (a) anxiety reduction skills, (b) behavioral limit-setting skills, (c) strategies for dealing with frequently encountered mental health problems, and (d) the need to refer patients experiencing emotional distress or exhibiting disordered behavior.

For the posttraining skills evaluation, subjects in both conditions were required to respond to three simulated psychological problems imbedded in a series of role-played medical emergencies. Three types of dependent variables were assessed. For the first type a confederate covertly timed the duration of the subject's eye contact and physical touching. Reliability of the measures was determined during 15 practice trials by correlating data obtained by the confederate with similar data collected by the first author. A second type of dependent variable consisted of a class of trainee behaviors scored as present or absent in the simulations. Behaviors rated in this manner were (a) exchanging names, (b) acknowledging distress verbally, (c) providing two types of information to the patient, (d) offering to help contact a friend or relative of a grieving individual, (e) permitting a grieving individual to view the deceased's body, and (f) the three components of the behavioral limit-setting procedure. These behaviors were rated from covertly recorded audiotapes of the simulations by a research assistant blind to the group assignment of the subjects. Reliability estimates

[2]Copies of the instructor's manual are available at cost for research purposes from the second author.

were obtained by correlating these data with similar ratings made by the first author. The final dependent variable was the ability of the trainees to converse with a patient in an ongoing interaction as assessed with a nine-point scale. The scoring criteria for each possible rating were explicitly defined using variables such as the amount of time spent talking to the patient and whether the subject focused the conversation on the patient. All conversations were covertly audiotaped and, as before, later rated independently by a research assistant and the first author.

RESULTS

The results of 8 of the 13 analyses conducted in this study support the hypothesis that intervention skills could be acquired through a brief training program. A summary of the analyses is presented in Table I. Psychologically trained subjects used a significantly greater amount of physical touching ($\bar{X}$ = 35.8 seconds) than psychologically untrained subjects ($\bar{X}$ = 3.4 seconds). While there was no significant difference between the mean amount of eye contact used by trained subjects (26.8 seconds) and untrained subjects (17.2 seconds), visual inspection of the data revealed that 100% of the trained subjects had some eye contact, while almost 50% of the untrained subjects had no eye contact. As seen in Table

Table I. Summary of Results for Behavioral Measures

Dependent variable	Test	*df*	Test value	*p*	Reliability
Physical touching	Welch t'	22	6.63	$< .001$	$r = +.99$
Eye contact	Welch t'	28[a]	1.60	$< .20$	$r = +.99$
Eye contact reanalysis	Fisher exact	35[a,b]		$= .002$	$r = +.99$
Exchange names	Fisher exact	36[b]		$= .013$	$\varphi = 1.00$
Acknowledge distress	χ^2	1	13.88	$< .001$	$\varphi = +.89$
Offer to contact friend or relative	χ^2	1	5.35	$< .05$	$\varphi = 1.00$
Provide information					
A	χ^2	1	2.35	$< .25$	$\varphi = +.66$
B	χ^2	1	2.11	$< .25$	$\varphi = +.77$
Allow viewing of body	Fisher exact	36[b]		$= .01$	[c]
Limit setting					
A	χ^2	1	12.25	$< .001$	$\varphi = +.68$
B	χ^2	1	2.85	$< .10$	$\varphi = 1.00$
C	Fisher exact	36[b]		$= .123$	$\varphi = +.60$
Conversational ability	t	34	2.41	$< .05$	$r = +.96$

[a]Eye contact analyses are based on 1 *df* less due to loss of a subject's data when a timer malfunctioned.

[b]Numbers in the *df* column for all Fisher exact tests indicate total number of subjects included in data analyses.

[c]No reliability estimate calculated. Confederate asked to view body and then simply recorded whether request was permitted or denied.

I, therefore, a significantly greater proportion of trained subjects used some eye contact as an intervention technique.

For the nine behaviors rated as present or absent in the simulations, frequency data were tabulated for each variable in a 2 × 2 matrix that crossed subject group with presence or absence of the behavior. Analyses of the data with a chi-square or Fisher exact probability test yielded predicted results for exchanging names, verbally acknowledging distress, offering to help contact a friend or relative, allowing a grieving individual to view the deceased's body, and the first component of behavioral limit-setting.

In terms of conversational ability, trained subjects again evidenced a significantly greater amount of skill. Means on this scale, which has a range of 1 (poor ability) through 9 (superior ability), were 6.3 for trained subjects and 4.1 for untrained subjects. The modal rating in the trained group was 9, obtained by 9 of 19 trained subjects versus only 1 of 17 untrained subjects. The modal rating for untrained subjects was 5.

DISCUSSION

The most important conclusion to be drawn from these data is that an EMT's style of handling psychological problems can be significantly enhanced by a very brief training program. Trainees learned a variety of skills with the exception of providing information to patients and two components of behavioral limit-setting. Four of the five nonsignificant comparisons are accounted for by these two skills. The instructor manual has subsequently been revised in order to place more emphasis on these areas. Also it should be noted that the EMTs in this study were a representative sample of one half of the general EMT population because they had contracted to work as part-time volunteers; this places them among the 50% of the EMT work force that operates on a volunteer basis (Scheib, Note 1).

Further research is needed to demonstrate that trainees use the acquired psychological interventions in actual emergency situations and that the interventions have a positive impact on patients. However, in vivo assessment may be difficult due to the unpredictable time frame of the crises to which EMTs respond. As a necessary first step, however, this study suggests that it is possible to provide EMTs with job-related psychological skills within the time constraints imposed by a typical EMT training program.

REFERENCE NOTES

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