Family Presence During Invasive and Resuscitation Procedures: The Attitudes of Israeli Emergency Nurses

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Abstract: *Introduction:* Whether to allow family presence or not is the subject of sharp controversy among health care professionals. The factors which the professional literature shows influence support for the idea are type of job, seniority, social pressure at the workplace, training, cultural background and the degree of invasiveness of the procedure. The researchers thought that emergency nurses' own attitudes on the issue of family presence, together with their own perceived behavioral control, and the susceptibility of these factors to peer and family pressure, could affect their wish and intent to encourage family presence.

Methods: A structured self-completed questionnaire was distributed to a convenience sample of 80 emergency nurses. Pearson correlation coefficients and regression analysis were used to test the two hypotheses designed to verify the researchers' thinking.

Results: Both hypotheses were confirmed.

Discussion: Subjective factors operating in and on nurses' minds can practically affect the likelihood that they will promote family presence in the resuscitation room. By postulating such new factors and relationships and objectively confirming their relevance, the study has opened up new horizons for other researchers to investigate more deeply and precisely.

Keywords: Emergency room nursing, family presence, patients' privacy, social pressure, perceived behavioral control.

INTRODUCTION

For decades it was accepted practice in most emergency departments that family members were asked to leave when their loved ones were to undergo invasive and/or resuscitation procedures. Then in the early 1980s this routine response was challenged by many family members asking to remain present during their relative's last moments [1, 2]. In recent years more and more emergency departments have responded to this need by abandoning the traditional practice in favor of preserving the unity, wholeness and dignity of the family unit from cradle to grave [3]. Despite this, the right of family members to remain present during resuscitation remains dependent on the willingness of doctors and nurses respect and promote it [4] and professional opinion on the issue of family presence during resuscitation is still sharply divided, with some emergency departments and emergency physicians taking one tack and others another.

Given this sharp division of opinion, it is relevant to investigate what might lie behind the two main paths of response. We summarize here the factors investigated so far.

Job and Seniority

Both [5, 6] found length of seniority and previous experience with the presence of family members to be strong predictors of attitudes on the issue. The younger and less experienced doctors tend to reject the idea of family presence, considering that resuscitation procedures, particularly after a trauma injury, are likely to horrify untrained eyes. The more senior the doctor, the more probable that he will agree to family presence [7, 8]. *Social Pressure at the Workplace:* In emergency units, whose official position is opposition to family presence, staffers are much less likely to express support for the idea. In units with a culture of support to family members, even if only a minority of the staff put it into practice, staff attitudes will be more permissive [9, 10]. *Training:* [9], found a clear training effect. In a sample of 46 emergency nurses, interviewed before taking a training course on family presence, only 11% expressed agreement with the idea but by the end of the course this percentage had risen to 79%. Bassler [11], came to similar findings. Ellison [6], found a statistically significant correlation ($r=2.34$; $p<0.001$) among nurses between clinical specialization in emergency medicine and a positive attitude to family presence.

Invasiveness of Procedure

Both Boudreaux [8, 12], found that the more invasive and complex a procedure, the less the support of professionals for family presence. *Cultural Background:* Ellison [6], found this variable to be influential not only among doctors and nurses but among patients and their families too.

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The authors of this paper felt that this list of influences on the attitudes of emergency doctors and nurses to family presence during resuscitation was not exhaustive. The demonstrated influence both of training and social pressure suggested that the nurses' own attitudes to the issue and other subjective factors related to nurses, and the susceptibility of these subjective factors to peer pressure, were worth investigating.

METHODS

Aims

The starting premise of this study was that there is a direct relationship between, on the one hand, nurses' practical intent to promote family presence during resuscitation and, on the other hand, their general attitude on the issue, their perceived behavioral control (i.e. their confidence in their ability to perform a particular behavior), and their perception of social pressure in the workplace. We hypothesized that the more positive the nurses' own general attitude, the higher their perceived behavioral control, the more supportive of family presence the working environment is perceived to be, the firmer will be a nurse's intention to promote family presence during resuscitation. In this we were following the behavioral theory set out in two papers, [13, 14]. In Israel, examining the variable 'support from the working environment' must take account of that fact that it is national policy and practice to not allow family presence during emergency procedures. However, this policy and practice is de facto only: it is not required by any law or regulation or Ministry-of-Health-issued performance protocol.

Research Hypotheses

1) A positive relationship will be found between, on the one hand, nurses' practical intent to promote family presence during resuscitation and, on the other, their general attitude on the issue, their perceived behavioral control and their perception of positive workplace social pressure on the issue.

2) A positive relationship will be found between, on the one hand, nurses' perceived behavioral control and their attitudes to family presence during resuscitation and, on the other, perceived positive social pressure (i.e. they work with colleagues and have families who endorse the idea of family presence during resuscitation).

Research Design

To test these two hypotheses and elicit the correlations between the variables cited in them we chose to survey a sample of emergency nurses by means of a self-administered structured questionnaire.

Sample

The sample selected was a convenience sample of 80 nurses from the emergency departments of two large hospitals in central Israel. All the sample met the two selection criteria of being registered nurses and qualified to work in a resuscitation room. They had worked in nursing from 1-37 years (mean = 11) and in an emergency department from 1-25 years (mean = 7). 60% had a nursing B.A. and 15% had also an M.A. or higher academic degree. 38% had taken advanced nurse training. 82% were women; ages ranged from 23-58 (mean = 34); only 28% defined themselves as religious. 80% or more were rank-and-file nurses who worked all shifts. About half (52%) worked full-time, the remainder part-time.

Data Collection Procedure

The data were collected in 2005. Permission to carry out the study was sought and obtained from the hospital directors, the chief nursing officers, the ED directors and the Helsinki (ethics) committees of the two hospitals concerned. All participants were guaranteed confidentiality and that the data would be used for the one study only. The questionnaires were distributed by one of the researchers to nurses as they came off shift with a request that the respondent fill it out with care and attention. The researcher collected the questionnaires as soon as they were completed, which took about 20-30 minutes. The response rate was not high, the 80 completed questionnaires representing about 60% of the total distributed.

The Instrument

The Questionnaire and its Validity

In our survey of the literature we found no validated and reliability-tested instrument that met the needs of this study and so decided to adopt the basic structure of the instrument constructed by Uzon [15], to examine the effect of nurses' attitudes, subjective norms and perceived behavioral control on their efforts to protect hospital patients' privacy. Uzon based her questionnaire on the behavioral theory set out in two papers, [13, 14]. To adapt the Uzon instrument to the needs of this study one of the authors sat with five academically trained registered nurses working in emergency medicine to find out which were the resuscitation room procedures during which family members were usually asked to leave the patient's bedside. The eight procedures cited were: cardiac resuscitation, resuscitation in a trauma context, intubation, inserting a thoracic drain, inserting a central venous line, diagnostic peritoneal lavage (DPL), external cardiac massage, and defibrillation. Relying on Uzon's experience with her instrument, the authors of this study decided that no pilot test was needed for the adapted instrument.

The final questionnaire comprised seven sections, plus an eighth to collect sociodemographic data. Each of the first seven sections was separately tested for validity (Cronbach α) and every section scored high on this measure.

Section 1 asked respondents to rank their actual intention to promote family presence during the eight listed resuscitation-room procedures on a six-point Likert scale (from 1= Never, to 6 = Every time), (Cronbach α score: 0.962). The mean of the eight answers was calculated to give the score for 'declared intention'. 13 of the 15 questions in the questionnaire followed this pattern: the two exceptions are specified below.

Section 2 tested for perceived behavioral control. It asked how far the time available to emergency nurses permitted them to encourage family members to be present during re-

suscitation and other emergency procedures (Cronbach α score: 0.946).

Section 3 tested for perceived normative beliefs in others. It asked the respondent whether her nurse and doctor colleagues and her family and close friends thought she should encourage family presence (3 questions) (Cronbach α score: 0.977).

Section 4 tested for the respondent's susceptibility to others' opinions. It asked how far the respondent tended to do what her nurse and doctor colleagues and her family and close friends thought she ought to do (Cronbach α score: 0.985). This question was answered, exceptionally, on a 4-point Likert scale. The means for the three parts of this question were multiplied by the mean for the counterpart question in Section 3 (nurses/ doctors/ family and friends) to produce three combined means.

Section 5 tested for the nurse's beliefs about the advantages and disadvantages of family presence. It asked whether family presence interfered with the nurses' work or compelled nurses to observe professional guidelines with exaggerated strictness, whether it ensured that family members would appreciate that the maximum had been done for their relative or alternatively put doctors and nurses at risk of law suits (Cronbach α score: 0.960). The mean for this question was combined with the mean for Section 7.

Section 6 tested for the respondents' beliefs about how family presence affected family members, whether it was important to them, easy for them to bear or disturbed them. (Cronbach α score: 0.937).

Section 7 was a sort of summary section. It asked how far the respondent considered the previously stated possible effects of family presence (see Section 5) as positive or negative (Cronbach α score: 0.991).

SECTION 8 WAS, AS STATED, A BRIEF SOCIODEMOGRAPHIC QUESTIONNAIRE

Data Analysis

Pearson correlations were calculated for all the variables in the two research hypotheses and the coefficients are given in Table **1** together with the actual P values, except where these were very small ($p<0.0001$). Multiple linear regression analysis (with 'the nurses' practical intent to promote family presence during resuscitation' as the dependent variable*)* was performed by two methods, the Enter and the Stepwise Forward methods. The data were analyzed using SPSS 12.0 software, with the significance threshold set at $p<0.05$.

Results

Hypothesis 1

A positive relationship will be found between, on the one hand, nurses' practical intent to promote family presence during resuscitation and, on the other, their general attitude on the issue, their perceived behavioral control and their perception of workplace social pressure on the issue.

The matrix of Pearson correlation coefficients in Table **1** shows that all the anticipated positive correlations were indeed found, so that the hypothesis was confirmed. The correlations between nurses' practical intent to promote family presence during resuscitation and their general attitude on the issue ($r=0.271$), their perceived behavioral control ($r=0.637$) and their perception of positive workplace social pressure ($r=0.311$, 0.368, 0.397) are all positive and statistically significant.

Hypothesis 2

A positive relationship will be found between, on the one hand, nurses' perceived behavioral control and their attitudes to family presence during resuscitation and, on the other, perceived positive social pressure (they work with colleagues and have families who endorse the idea of family presence during resuscitation.

Table **1** shows that all but one of the anticipated positive correlations were indeed found and thus that the hypothesis was confirmed. The correlations between nurses' perceived behavioral control and perceived social pressure ($r= 0.279$, 0.344, 0.305) and between their attitudes on family presence and perceived social pressure from nurses and family/friends ($r= 0.225$, 0.303) are all positive and statistically significant. Only the correlation between the nurses' own attitudes and perceived social pressure from doctors, though positive and large ($r=0.74$), was not statistically significant ($p = 0.522$).

Table **2** provides some additional confirmation of the first hypothesis. In both the correlation and the regression analysis, the aim is to predict/explain '*the nurses' practical intent to promote family presence during resuscitation*'. The final linear regression model shows that 11 variables together explain 68.5% of the variation in this dependent variable. Two of the 11 variables are shared with Hypothesis 1, namely, *Nurses' perceived behavioral control* and *Their per-*

Table 1. Pearson Coefficients Between the Variables, Practical Intent to Encourage Family Presence, Attitudes to Family Presence, Perceived Behavioral Control, Perceived Social Pressure (N = 80)

	Perceived Pressure from Nurses	Perceived Pressure from Doctors	Perceived Pressure from Family & Friends	Perceived Behavioral Control	Attitudes
Practical Intent	r = 0.397 p < 0.0001	r = 0.368 p < 0.0001	r = 0.311 p < 0.007	r = 0.637 p < 0.0001	r = 0.271 p < 0.016
Attitudes	r = 0.225 p < 0.047	r = 0.74 p < 0.522	r = 0.303 p < 0.009		
Perceived Behavioral Control	r = 0.305 p < 0.007	r = 0.344 p < 0.002	r = 0.279 p < 0.016		

Table 2. Multiple Linear Regression: Results of Final Model

Variables Included in the Equation	B	Beta	Sig	t
Constant: -1.270				
Age	0.035	0.152	0.006	1.916
Nationality**	1.373	0.237	0.003	3.110
Place of birth 1*	0.440	0.126	0.117	1.588
Place of birth 2*	0.722	0.149	0.077	1.798
Seniority	-0.828	-0.263	0.002	-3.198
Nurse training 1*	-0.218	-0.068	0.470	-0.727
Nurse training 2*	-0.903	-0.211	0.027	-2.260
Current job	0.986	0.238	0.004	2.982
Perceived Behavioral Control	0.545	0.429	????	5.149
Perceived Social Pressure at Workplace	0.108	0.274	0.002	3.187
Confidence that family will understand that the patient received the best possible care	0.046	0.292	0.002	3.177

$R^2 = 0.685$.

* With regard to both Place of Birth and Nurse Training, the first of each pair of variables has three categories, which in the second are reduced to two (i.e. it becomes a 'dummy' variable).

** The variable 'nationality' is unreliable as it is based on 6 cases only.

ception of positive workplace social pressure on the issue of family presence.

Discussion

Whereas correlation coefficients give no clue to the direction of causation in the relationships found, the multiple linear regression analysis does help to repair this shortcoming. The final regression model says that two of the variables in Hypothesis 1, namely, *Nurses' perceived behavioral control* and *Nurses' perception of positive workplace social pressure on the issue of family presence* help predict '*Nurses' practical intent to promote family presence during resuscitation*'. The fact that the B coefficients for Seniority and Nurse Training have a minus sign means that the emergency nurses in our sample who worked beforehand in other wards, and who also have the highest level of nurse training, are less supportive of family presence than the nurses with less work experience and nurse training. In explanation of this finding, the first point to make is that the training of these higher trained nurses does not include training in family presence issues. Secondly, unlike the less experienced nurses, perhaps they are too set in their ways to want to change their approach to their work.

Limitations

The most significant limitation is that the sample is a convenience sample and that nothing is known of the relatively large proportion of nurses (40%) who did not return a completed questionnaire. This means that its representativeness with regard to its own parent population (internal validity) is open to doubt. This also leaves open the question of its generalizability to other emergency nurse populations (external validity), although in a small country like Israel it is unlikely that emergency nurses in major hospitals in a major city (Tel Aviv) will be significantly divergent from emergency nurses elsewhere. The second limitation to be mentioned is that the study could only ask about attitudes and intentions and not corroborate these mental constructs with actual deeds. It is also true that almost all the correlations, though positive, are not strong. The two exceptions are the rather high correlations between practical intent and perceived behavioral control (r=0.637) and between attitudes and perceived social pressure from doctors (0.74). The high first correlation seems to say that firm intent goes together with the conviction that conditions are present for realising that intent. The second correlation, however, is accompanied by a high p value (0.522) and so is not usable for the purpose of interpretation.

Implications for Emergency Nurses

The confirmation of Hypothesis 1 shows that the firmer is a nurse's intent to encourage family presence during resuscitation room procedures, the more positive will be her general attitudes on the issue, the higher will be her confidence that she can carry out her intent and the more likely it will be that she perceives social pressure on the issue as supportive of her intent.

The confirmation of Hypothesis 2 shows that the higher a nurse's perceived behavioral control and the more positive her attitudes to family presence during resuscitation, the more likely it is that she perceives special pressure on the issue as supportive of family presence in the resuscitation room. The confirmation of the two hypotheses furnishes further corroboration for the [13], behavioural model.

CONCLUSIONS

As against the limitations mentioned, it must be said that the study is the first to explore the connection of attitudes, subjective norms and perceived behavioral control to the practical intention to allow family members to remain present during resuscitation and other invasive emergency procedures. A first exploratory study cannot be expected to

achieve what later more developed studies will. The authors took two findings highlighted by the literature — (a) that in emergency units, whose official position is opposition to family presence, staffers are much less likely to express support for the idea than in units with a more positive/permissive declared position [9, 10], and (b) that negative nurse attitudes to family presence can be made positive by formal training on the issue [11, 9] — and on the basis of these two findings postulated that more subjective factors operating in and on nurses' minds could practically affect the likelihood that they would try to promote family presence in the resuscitation room. By postulating new factors and relationships and confirming the relevance of those factors and relationships, the study has opened up new horizons for other researchers to investigate more deeply and precisely.

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