

## ORIGINAL ARTICLE

# Barriers to patient education and their relationship to nurses' perceptions of patient education climate

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**Received:** June 8, 2017

**Accepted:** August 27, 2017

**Online Published:** August 30, 2017

**DOI:** 10.5430/cns.v5n4p65

**URL:** <https://doi.org/10.5430/cns.v5n4p65>

## ABSTRACT

A core component of patient-centered care is effective patient education. Although it is a part of professional nursing and has been found to promote high-quality healthcare, its implementation is often deficient. This study responds to the need for theory-based research on health communication and aims to provide a theoretical framework for understanding nurses' barriers to patient education. Drawing on organizational climate theory, the study examines two possible predictors of barriers to effective patient education, namely nurses' perceptions of patient education climate, and of their role as patient educators. The hypotheses were tested using a cross-sectional correlational design with a sample of 328 nurses from 26 units in one general hospital. Data were obtained by means of questionnaires. The results supported our hypotheses, as each predicting variable was significantly related to the relevant barriers to patient education: i.e. patient education climate perceptions predicted the barriers of overload, lack of policies, and low priority, whereas role perception predicted the barriers of difficulty in communication with patients, insufficient professional knowledge and skills, and the belief that educating patients was not the nurse's responsibility. To conclude, this study attributes the concept of patient education to organizational climate theory and, thus, may offer a theoretical framework for understanding the reluctance of hospital nurses to provide their patients with effective education. Practical implications for reducing barriers to patient education are discussed.

**Key Words:** Patient education, Organizational climate, Nursing

## 1. INTRODUCTION

Patient education is an important component of high-quality healthcare services. It has become more prevalent as health organizations gradually acknowledge the importance of patients' self-management skills<sup>[1]</sup> and subsequently adopt a patient-centered perspective.<sup>[2]</sup> Patient education is designed to improve patients' self-care by providing patients and their families with information about the treatment and involving them in decisions concerning their health, consequently increasing their empowerment and adherence to the treatment. Patient education is a part of effective communication be-

tween caregivers and patients, and is typically considered the professional responsibility of nurses.<sup>[3]</sup> The American Nurses Association as well as the International Council of Nurses emphasize the teaching of patients as a significant element of nursing practice.<sup>[4]</sup> Moreover, studies indicate that nurses indeed view it as an important part of their professional duties.<sup>[5,6]</sup>

Effective education enhances patients' ability to assume responsibility for their health and promotes higher quality healthcare.<sup>[7]</sup> It has been consistently associated with favorable patient outcomes, including satisfaction and willing-

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ness to adhere to treatment,<sup>[8]</sup> perceived control,<sup>[7,9]</sup> readiness for the future and reduced anxiety,<sup>[10]</sup> self-awareness, disease-related self-efficacy,<sup>[11]</sup> and health-related quality of life.<sup>[12,13]</sup> It can also affect healthcare costs by shortening patients' hospital stay.<sup>[14]</sup> Conversely, ineffective communication between healthcare professionals, patients and family members has been associated with medication-related adverse events.<sup>[15]</sup>

Despite its positive implications in terms of patient and organizational outcomes, implementation of patient education is insufficient due to various difficulties and challenges.<sup>[5,16,17]</sup> The quality of patient education seems to vary considerably;<sup>[18]</sup> moreover, it is often not provided in the desirable frequency and quality. For example, using 25 focus groups of nurses working in medical surgical units, patient education was identified as one of nine aspects of care that were frequently missed by nurses.<sup>[17]</sup> Furthermore, a study on medication education in Israel found that only 40% of the patients reported receiving medication counseling during hospitalization and 42% were interested in receiving more comprehensive counseling related to medication therapy.<sup>[19]</sup> This raises the question of why patient education is not implemented by nurses as an integral part of the health delivery process.

Prior research points to numerous factors that inhibit nurses' engagement in patient education. These include work overload and time pressure,<sup>[5,20,21]</sup> difficulty in communication with patients,<sup>[16,20]</sup> lack of educational resources,<sup>[22]</sup> insufficient knowledge and skills,<sup>[5,20-23]</sup> limited managerial support,<sup>[24]</sup> low priority given to patient education,<sup>[25,26]</sup> and inappropriate organizational culture.<sup>[27,28]</sup> However, to the best of our knowledge, previous studies did not associate these hindering factors to a comprehensive theoretical framework. A theoretical framework helps to organize the knowledge and establish a foundation for hypothesizing about causes for patient education failures. Theory-driven research produces generalized knowledge about the casual relationship between variables and thus provides useful information for decision makers concerning intervention and policy development.<sup>[29]</sup> Consequently, it should provide insights to patient education failure etiology and may guide future interventions to reduce its barriers.

In a qualitative study of nurses in Iran, Farahani et al.<sup>[28]</sup> found that lack of effective patient education was attributed to an organizational culture in which patient education was not prioritized and not considered a core value, nurses were not rewarded for educating patients, and supervisors did not communicate a clear expectation from nurses regarding patient education activities. As a result, nurses' motivation to

educate patients was low. Another study identified the value of patient education, a supportive learning environment and motivation as principal factors in becoming an expert educator.<sup>[23]</sup> Scholars also recommended that patient education be emphasized as a nursing value and that teaching strategies should be prioritized as part of staff development.<sup>[6]</sup> In effect, these scholars imply that patient education is an aspect of care that should be given a high priority and incorporated into the organizational culture.

Organizational culture and climate represent employees' shared understanding of aspects of their work setting.<sup>[30]</sup> We offer the theory of organizational culture and climate as a framework for examining barriers to patient education. This theory describes the way people experience their work settings and the meaning they attach to these experiences in terms of how the organization works.<sup>[31]</sup> Climate is defined as employees' perceptions of practices, policies, procedures, and routines regarding specific aspects of the organizational context, such as service, safety and quality.<sup>[31]</sup> Accordingly, the importance of patient education, as perceived by nurses based on their daily experience of relevant practices and procedures, constitutes the climate for patient education. Climate perceptions establish employees' conclusions about the values and beliefs that characterize their organization.<sup>[32]</sup> In an attempt to make sense of their environment, workers interpret organizational policies, practices and procedures, and conclude what kind of behaviors are rewarded, supported, and expected. Accordingly, they tend to perform the behaviors that are expected to yield favorable outcomes (e.g., recognition, feedback, reward).<sup>[33]</sup>

Scholars have studied climates for various organizational processes (e.g., procedural justice climate,<sup>[34]</sup> ethical climate,<sup>[35]</sup> empowerment climate<sup>[36]</sup>). Following Schneider et al.'s<sup>[31]</sup> assertion that any organizational process might be studied and understood through a climate lens, we suggest that patient education may also be a focus of climate perceptions, and thus could yield new insights into possible antecedents to patient education barriers. Therefore, the main research objective is to examine the relationship between nurses' perceptions of patient education climate and barriers to patient education.

The priority of patient education may also be influenced by the broader context of national culture, as differences between countries in norms, values and behavior, can influence medical healthcare.<sup>[37]</sup> Indeed, differences in national health policy play a role in the priority and implementation of patient education.<sup>[38]</sup> However, within-cultural differences also exist as the organizational climate perceptions (i.e. the perceived priority of patient education in the workplace) may

vary across healthcare organizations and even between units within the same organization.<sup>[31]</sup> This study considers the immediate work context of employees by focusing on their specific organizational climate concerning patient education.

Climate perceptions are largely influenced by managerial practices, since they signify the enacted priorities of managers regarding patient education, and provide reliable information about the expected behavior.<sup>[39]</sup> Thus, when management communicates clear and consistent expectations for implementing patient education practices even in the face of obstacles (e.g. high workload, communication difficulties etc.), a high patient education climate evolves. Drawing on Hellriegel and Slocum's<sup>[40]</sup> differentiation between psychological and organizational climates, the individual perceptions of the priority of patient education produce the psychological climate, while the shared perceptions of all nurses constitute the organizational climate for patient education. As psychological climate is influenced by individual values<sup>[30]</sup> and shared tacit assumptions,<sup>[33]</sup> climate perceptions can also derive from professional standards regarding nurses' responsibility for patient education.

For generating an organizational change and improving its performance, management should create a strategic climate that clearly communicates the organization's goals, and to shape the organizational processes and procedures in a way that supports their achievement.<sup>[31]</sup> Indeed, studies have consistently shown that climate perceptions are predictive of employees' behavior. For example, patient safety climate predicts nurses' safety behavior<sup>[39,41]</sup> and likewise, service climate predicts high service quality.<sup>[42]</sup> Consequently, high patient education climate should lead to staff behaviors that promote patient education. In other words, improvement in the implementation of patient education can be achieved by defining it as a high priority goal in all the hospital wards. Specifically, we suggest that even under the constraints of patient education described by nurses, this goal can be accomplished by clearly prioritizing it and creating a high patient education climate in hospital units. A similar idea was expressed by Friberg, Andersson, and Bengtsson,<sup>[10]</sup> who concluded that healthcare organizations should create a "pedagogical climate", in which informal teaching is encouraged and patients are viewed as people who wish and deserve to be informed about their condition.

Given the paucity of theory-based research on health communication,<sup>[43]</sup> we offer an organizational climate perspective to study the practice of patient education. Drawing on organizational climate research, we suggest that building a climate of patient education can affect nurses' relevant work behaviors and perspectives regarding factors that may inhibit patient

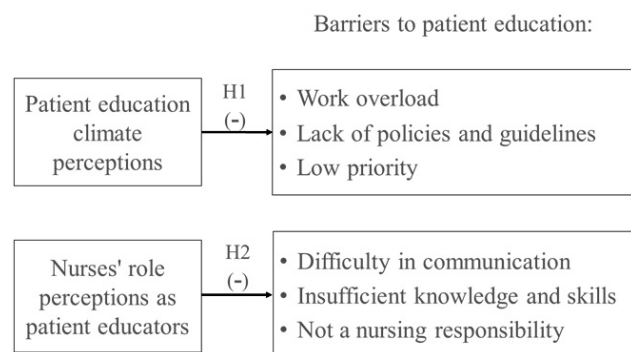
education. In fact, creating a climate in which patient education is clearly defined and given high priority (as indicated by organizational procedures, managerial practices and professional standards) should result in nurses placing greater emphasis on practicing patient education, thereby improving patient care.

While the importance of patient education for promoting patients' health and satisfaction has been widely evidenced,<sup>[7-13]</sup> its implementation is deficient. Moreover, there is a paucity in theory-based research that can point to organizational factors and managerial practices that may affect nurses' behavior in this domain. Therefore, the purpose of this study is to resolve the discrepancy between the acknowledged benefits of patient education and its substandard enactment, by using organizational climate theory to explain what factors may hinder patient education performance.

The present study aims to examine two possible predictors of barriers to effective patient education, namely nurses' perceptions of patient education climate and their perceptions of their professional role as patient educators. We expect that barriers representing the organizational context will be predicted by nurses' climate perceptions, whereas those referring to professional skills will be predicted by nurses' role perceptions as patient educators (see the research model in Figure 1). Therefore, the following hypotheses are presented:

H1: Nurses' perceptions of patient education climate are negatively related to the barriers of (1) work overload, (2) lack of policies and guidelines regarding patient education, and (3) low priority given to patient education in the unit.

H2: Nurses' perceptions of patient education as part of their professional role are negatively related to the barriers of (1) difficulty in communication with patients, (2) insufficient professional knowledge and skills, and (3) the belief that patient education is not the nurse's responsibility.



**Figure 1.** The research model

## 2. METHOD

### 2.1 Participants

The study was conducted at an urban public general hospital in Israel, consisting of 460 beds and providing medical services for emergency care, inpatients, and outpatients. The target population consisted of all staff nurses working in the hospital. Nurses in all the hospital's wards were approached during monthly team meetings. The research was briefly presented by a member of the research team and all nurses were invited to participate. Those who agreed filled out the anonymous questionnaire and returned it to the member of the research team. Overall, the study sample consisted of 328 nurses from 26 hospital units, constituting a 66% response rate.

The number of respondents in each unit ranged from 4 to 24, with an average of 12.6 ( $SD = 4.96$ ). Their average age was 39.5 ( $SD = 9.5$ ; range: 23-62) and their average professional tenure was 15.3 years ( $SD = 10.07$ ; range: 7-28). 56.7% of the nurses ( $n = 186$ ) worked full time and 59.5% ( $n = 195$ ) held an academic degree.

### 2.2 Procedure

To investigate nurses' perceptions of patient education, a quantitative study was employed with a cross-sectional correlational design. Questionnaires were distributed and filled out during nurses' scheduled team meetings. Participation was voluntary, nurses' responses were anonymous and kept confidential. The study was approved by the hospital's Helsinki Committee.

### 2.3 Measures

Patient education climate perceptions were measured by 29 items based on the nursing climate questionnaire.<sup>[44]</sup> Items were adapted to reflect the domain of patient education, based on reviewing the literature on patient education and interviewing nursing experts. Respondents were asked to indicate the extent to which they were expected, required, or encouraged to perform various tasks representing aspects of patient education. Items were accompanied by a 5-point rating scale ranging from 1 (not much) to 5 (extremely). Sample item: "teaching the patient how to take care of himself". An internal consistency test yielded a Cronbach's  $\alpha$  coefficient of 0.96.

Role perception of patient education was measured using 10 items which were developed for the present study, based on reviewing the literature on patient education and interviewing nursing experts who assisted in operationalizing the concept of patient education. Respondents were asked to indicate the extent to which different activities related to patient education were perceived as part of their job. Items

were accompanied by a 5-point rating scale ranging from 1 (not much) to 5 (extremely). Sample item: "providing the patient with relevant information on his/her condition". An internal consistency test yielded a Cronbach's  $\alpha$  coefficient of 0.94.

Barriers to patient education. Six common barriers which were identified in previous studies<sup>[5,20]</sup> were measured using 25 items: Overload (3 items,  $\alpha = 0.86$ , sample item: "I don't have time during my shift"), insufficient professional knowledge and skills (5 items,  $\alpha = 0.92$ , sample item: "I feel my professional knowledge is deficient"), difficulty in communication with patients (4 items,  $\alpha = 0.87$ , sample item: "most patients don't understand my explanations"), lack of policies and guidelines regarding patient education (2 items,  $\alpha = 0.91$ , sample item: "there is a lack of guidelines for patient education in my ward"), not a nursing responsibility (5 items,  $\alpha = 0.86$ , sample item: "it is not a part of my job"), low priority to patient education (6 items,  $\alpha = 0.90$ , sample item: "I am not encouraged to practice patient education"). Respondents were asked to indicate the extent to which these barriers prevented them from engaging in patient education using a 5-point rating scale (1 = not much, 5 = extremely).

Control variables. Tenure, age, and job part were included as control variables because of their potential relationships with various types of difficulties in providing patient education.

## 3. RESULTS

### 3.1 Data analysis

Data were analyzed using an SPSS statistical package. Correlation analysis was used to identify the relationship between the study variables, and multiple linear regressions were used for hypotheses testing. This analysis was chosen because it allows to predict the value of a dependent variable based on the value of two or more independent variables. The independent variables were: (1) patient education climate perceptions and (2) nurses' role perceptions as patient educators. The dependent variables were the following six barriers to patient education: (1) work overload; (2) insufficient professional knowledge and skills; (3) difficulty in communication with patients; (4) lack of policies and guidelines regarding patient education; (5) the belief that patient education is not the nurse's responsibility; (6) low priority to patient education.

### 3.2 Descriptive statistics

Means, standard deviations, and bivariate correlations of the study variables are presented in Table 1. The mean patient education climate level across units was 3.86 on a 1-5 scale ( $SD = 0.75$ ), meaning that nurses perceived the priority of patient education in their workplace as relatively high. The

mean score for role perception of patient education was 4.6 (*SD* = 0.51), indicating that patient education was largely perceived by nurses as part of their role. The major barrier to patient education was work overload (mean = 3.04, *SD* = 1.13). In other words, overload was perceived by nurses

as the main reason for not engaging in patient education, while the other potential barriers were perceived as hindering patient education to a lesser extent (average of 1.44-1.96 on a 1-5 scale, as presented in Table 1).

**Table 1.** Means, SD, and inter-correlation of study variables

	M	SD	1	2	3	4	5	6	7	8	9	10
Tenure	15.32	10.07	----									
Age	39.5	9.52	0.91**	----								
Job part	0.62	0.49	0.25**	0.31**	----							
PE climate perception	3.86	0.75	0.11	0.13*	0.09	----						
Role perception of PE	4.60	0.51	0.01	0.01	0.02	0.54**	----					
<b>Barriers to PE:</b>												
Overload	3.04	1.13	-0.15**	-0.12*	-0.06	-0.29**	-0.24**	----				
Insufficient knowledge	1.59	0.81	-0.07	-0.03	-0.06	-0.21**	-0.35**	0.37**	----			
Difficulty in communication	1.57	0.80	0.09	0.15*	0.04	-0.22**	-0.36**	0.36**	0.63**	----		
Lack of policies	1.96	1.13	-0.10	-0.07	-0.02	-0.41**	-0.29**	0.41**	0.57**	0.51**	----	
Not a nursing responsibility	1.44	0.71	0.01	0.08	0.01	-0.10	-0.28**	0.34**	0.60**	0.67**	0.43**	----
Low priority	1.46	0.77	-0.04	0.03	-0.04	-0.25**	-0.25**	0.37**	0.66**	0.59**	0.58**	0.59**

Note. \* *p* < .05, \*\* *p* < .01; job part - 0 = "partial", 1 = "full"; PE = patient education

**Table 2.** Multiple linear regressions for predicting barriers to patient education

	<b>Model 1: Overload</b>	<b>Model 2: Insufficient knowledge</b>	<b>Model 3: Difficulty in communication</b>	<b>Model 4: Lack of policies and guidelines</b>	<b>Model 5: Not a nursing responsibility</b>	<b>Model 6: Low priority</b>
Age	-0.001	0.030*	0.020	-0.003	0.028*	0.030*
Tenure	-0.011	-0.029*	-0.006	-0.006	-0.027*	-0.027*
Job part	-0.035	-0.083	0.066	0.029	0.029	-0.136
Patient education climate perceptions	-0.402**	-0.084	-0.105	-0.568***	0.044	-0.241**
Role perception of patient education	-0.093	-0.386**	-0.401**	-0.089	-0.291**	-0.082
R <sup>2</sup>	0.100***	0.115***	0.123***	0.166***	0.063*	0.101***

Note. \* *p* < .05, \*\* *p* < .01, \*\*\* *p* < .001

### 3.3 Hypotheses testing

The hypotheses were tested using multiple linear regression analyses with each barrier to patient education as a dependent variable. The control variables (tenure, age, and job part) were entered in the first step, followed by the independent variables (patient education climate perceptions and role perception of patient education) in the second step. These results are presented in Table 2. Significant regression equations were found for all models, meaning that both independent variables together explained a significant amount of variability in the dependent variables. Put differently, climate perceptions and role perceptions of patient education play a significant role in affecting perceived barriers to patient education.

The regression analyses also show that patient education climate perceptions significantly and negatively predicted the barriers of work overload (*B* = -0.40, *p* < .001), lack of policies and guidelines regarding patient education (*B* = -0.57,

*p* < .001), and low priority given to patient education (*B* = -0.24, *p* < .01), thus supporting hypothesis 1. In other words, when climate perceptions were high, the above-mentioned factors were less perceived as obstacles to patient education. Hypothesis 2 was also supported, as role perception of patient education significantly and negatively predicted the hindering factors of difficulty in communication with patients (*B* = -0.40, *p* < .001), insufficient professional knowledge and skills (*B* = -0.39, *p* < .001), and the belief that educating patients was not the nurse's responsibility (*B* = -0.29, *p* < .01). This means that when nurses perceive patient education as part of their role, these barriers play a lesser role in impeding patient education implementation.

### 4. DISCUSSION

This study aimed to investigate two possible predictors of barriers to the provision of patient education, namely nurses' perceptions of patient education climate and their perceptions

of their professional role as patient educators. First, it was found that the perceived priority of patient education in the hospital's units (i.e. patient education climate perceptions) was relatively high, congruent with current attempts to improve healthcare quality and health communication.<sup>[2,45,46]</sup> Second, our results support the central role of patient education in nursing, as was previously evidenced.<sup>[3,5,6,47]</sup> Third, work overload was perceived by nurses in this study as a major constraint to the delivery of patient education, consistent with prior research findings.<sup>[21,47]</sup>

In support of our hypotheses, the results show that climate perceptions and role perceptions are predictive of different barriers to patient education. Specifically, it was found that when nurses perceived the patient education climate in their unit as high, meaning that it was emphasized by policy-makers as an important and worthy work goal, they reported lower levels of disruption to patient education due to overload, lack of policies and guidelines regarding patient education, and low priority given to patient education. Nonetheless, the more the nurses perceived patient education as an integral part of their professional role, the less it was hindered by difficulty in communication with patients, by insufficient professional knowledge and skills, or by the belief that it was not their responsibility. These findings expand prior research which found that nurses' perceived priority of patient education as well as their perceived responsibility for patient education were positively related to their performance in this domain.<sup>[47]</sup> Together, these studies suggest that while high priority and high responsibility for patient education yield a high level of engagement in patient education, low priority and responsibility hinder patient educative activities.

The present study responds to scholars' call for making the research on provider-patient communication more theory-anchored by relating it to theories from other disciplines.<sup>[48]</sup> Thus, our results may offer a theoretical framework adopted from the field of organizational psychology, for understanding the reluctance of hospital nurses to provide their patients with effective education. Considering the deficiency in theory-based research on communication in healthcare,<sup>[43]</sup> the present study relates the concept of organizational climate to patient education and extends our understanding of previously studied hindering factors. As prior research has suggested that specific climates are predictive of specific outcomes (e.g., safety climate predicts employees' safe behavior,<sup>[30]</sup> ethical climate predicts ethical decision making<sup>[49]</sup>), our findings may point to the potential role of patient education climate in predicting patient education practices. However, since we examined barriers to patient education

and not actual behavior, future studies should explore the relationship between climate for patient education and its implementation by nurses.

On a practical note, these findings have some implications for reducing barriers to patient education in hospital wards. First, managements are advised to develop an organizational climate that promotes patient education, thereby encouraging nurses' activity in this area. This can be achieved by prioritizing patient education and consistently emphasizing its importance throughout the organizational hierarchy, from hospital management to head nurses in each unit. Effective implementation of patient education should be rewarded and awarded recognition in nurses' performance evaluations to increase motivation. Management should also create a supportive work environment that practically facilitates patient education activities, in terms of staffing, allowing time for teaching, providing clear guidelines and available teaching resources, and developing nurses' educating skills. Second, the results suggest that strengthening nurses' professional identity, underscoring their significant role in providing high-quality healthcare and emphasizing the value of educating patients may be beneficial in eliminating obstacles and, consequently, enhancing effective patient education in hospital wards.

The primary limitation of this study concerns its cross-sectional design, which limits the ability to infer causal relationships between the variables. Therefore, it cannot be ruled out that the experience of barriers to patient education leads to predisposed climate and/or role perceptions. Consequently, future research should adopt a longitudinal or experimental design to clarify the direction of causality. Another limitation derives from the use of self-reporting questionnaires, potentially leading to common source and common method bias, possibly resulting in inflated associations between the variables.<sup>[50]</sup> Therefore, future studies should collect diverse data from multiple sources. For example, in addition to nurses' climate perceptions, data on the extent of patient education may be obtained from hospital reports or from patients' appraisals of the extent and quality of education they receive, while barriers to patient education can be assessed by supervisors. Finally, although our sample size is adequate ( $N = 328$ ), it is based on one hospital only, thereby limiting the generalizability of the results. It is therefore important that future studies be performed in a larger sample of healthcare organizations in order to strengthen our preliminary results.

## CONFLICTS OF INTEREST DISCLOSURE

The authors declare they have no conflicts of interest.

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