

# The Effect of Time Management Skills Training on Psychological Empowerment of Nurses

Roqayeh Ghasemi Hamzehkola <sup>1</sup>, Manijeh Naderi <sup>2,\*</sup>

<sup>1</sup> M.A, Department Medical Surgical Management, School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran, Iran

<sup>2</sup> Assistant Professor, Department of Nursing, School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran, Iran

\*Corresponding author: Manijeh Naderi, Assistant Professor, Department of Nursing, School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran, Iran. E-mail: [manijeh.naderi@gmail.com](mailto:manijeh.naderi@gmail.com)

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## Abstract

**Introduction:** The issue of time management is of particular importance in the nursing profession, because the wasted time is actually the time, which has not been spent with the patient and if tasks are forgotten during work, there will be adverse effects on patients. The purpose of empowering the staff is to increase the efficiency of individuals and improve performance in the organization. The current study was conducted by considering the effect of time management skills' training on psychological empowerment of nurses of a hospital affiliated to Mazandaran University of Medical Sciences, during year 2016.

**Methods:** The study was a quasi-experimental research, in which all of the nurses (n = 60) of all wards of the selected hospital participated. "Spritzer's (1995) Psychological Empowerment Questionnaire" and "Hashemizadeh's Time Management Questionnaire" were used to collect data. The questionnaires were completed by subjects before and after holding a training time management skills workshop, as an intervention. Time management skills' training was held as a one-day workshop in two groups, thus all of the nursing staff in different shifts could participate in this workshop. One month after the intervention, time management and psychological empowerment questionnaires were distributed again among the subjects and the data were collected to determine the effectiveness of time management skills' training on psychological empowerment of nurses. The SPSS 21 software with descriptive, inferential statistical tests and paired t-test (non-parametric Wilcoxon test) were used to analyse the data.

**Results:** The results of the study showed that total mean scores of time management and psychological empowerment were, respectively, 76.73 and 60.38, before the intervention and 83.85 and 66.26, after the intervention. Overall, the results showed that time management skills training improved psychological empowerment of nurses ( $P < 0.05$ ).

**Conclusions:** The findings of the current study indicated that time management skills training, as a method, increased the psychological empowerment of nursing staff and also caused a sense of having a meaningful job, having competence, and trust in the staff. Thus, this method is suggested as a strategy to increase the adequacy, competence, belief of an individual to his/her own abilities, sense of being valuable, and independence. Also, it helped nurses trust others, work together, and improve their professional performance.

## INTRODUCTION

Since the most important and valuable asset of a society is its human resources and the most precious asset of human beings is also the amount of time they have during their lifetime, therefore, if time is used in the right way, it will yield positive and optimum outcomes in all aspects of people's lives and subsequently the society.

Wasting time and energy and rising dissatisfaction of patients from poor care provided by nurses and lack of abilities is caused by sense of lacking staff and fatigue of working [1]. This huge asset could be useful for people if it comes with good management and control. This means that by careful planning, one can obtain the best

productivity from this divine blessing [2]. Although everyone has the same number of hours per day and the same days per week, some do more work and use their time more adequately [3]. Improper use of time may disrupt things and endanger the entire society [4]. Time management is a set of skills, which helps people make effective use of time. Time management in nursing helps prioritize activities and allows more time to care for patients by eliminating unnecessary activities. One of the satisfying aspects of time management is stress reduction of life and work that can improve mental and physical health [5]. There is a close relationship between time management and stress. Time management appropriately reduces stress and increases efficiency. Good time management skills allow one to spend his/her time on good things [6]. The issue of time management is of particular importance in the nursing profession, because, the wasted time is actually the time, which has not been spent with the patient and if it is forgotten during work, it will have adverse effects on the patient. Despite the importance of using these skills, which is an important component of professional performance in nursing, unfortunately, it has not drawn the attention of nurses and there has been no attempt by nurses to learn time management techniques, to meet the needs of patients and to avoid the stress of time pressure [7]. Providing care based on the standards developed for healthcare organizations, requires competent and interested staff in organizations. Therefore, to measure the level of empowerment, correct and scientific materials are necessary [1]. Empowerment depends on the efficiency of the organization so it creates positive outcomes in satisfaction of the nurses and in their performance improvements by empowering them [8]. Empowerment is of two types: structural and psychological. Structural empowerment describes access of the staff to four environmental factors, which are opportunity, information, support, and resources in organizations and is related to official and unofficial systems. The official power is the result of one's organizational status and position and unofficial power is the result of friendship relations and alliance of people in the organization [9]. Psychological empowerment is to create inner job motivation through preparation of the environment and creating more effectiveness and energy for the staff. It includes the following cognitive features:

Adequacy in achieving goals competency, which is one's belief to his/her own capabilities; meaningfulness, which is the value of a job goal based on one's ideals and standards; independence and freedom of action of one in determining the necessary activities to carry out job tasks and to have a sense of trust on others and personal safety [10]. One of the important goals of health-care organizations is to improve the level of people's health and to provide desirable quality. Nurses are the mainstay of the process of improving the quality of care and the

most important groups in the realization of goals of health-care organizations, whose performance is very effective to advance the goals of the organization. Since there has been no research on the effect of time management skills training on the psychological empowerment of nursing personnel employed in Iran and the importance of the effects of time management behaviours on nurses' performance, there is a need for research in this field. In this research, time management skills and five dimensions of empowerment before and after training were evaluated. Regarding the results of the study, nurses are expected to improve the quality of nursing care and to contribute more to the recovery of patients in order to apply time management skills in nursing and to improve their own empowerment.

## METHODS

The current study was a quasi-experimental research (IR.SBMU.IASB.REC). The population of the study consisted of all nurses at one of the hospitals affiliated to Mazandaran University of Medical Sciences ( $n = 60$ ) that had the inclusion criteria for the study. These nurses worked at internal, surgery, intensive care unit, paediatric, gynaecology, and emergency wards, and at least had a Bachelor of Science (BS) degree in nursing and worked as a nurse at one of the wards of the hospital. A three-part questionnaire was used to collect the data. The first part involved the population information (age, gender, employment information, work experience, work shift and time management's seminar or workshop attendance record). The second part involved quadruple dimensions of time management (goal setting and prioritizing, time management mechanics, control over time, ordering, and organizing) with the Likert Response Spectrum from one (strongly disagree) to five (strongly agree), which was designed by Hashemizadeh [11]. These two parts of the questionnaire had four dimensions with 18 items. Their total score was 18 to 90 under the title of total index of time management questionnaire. Content validity of this tool was confirmed in the studies of Hashemizadeh [11] and Nasouri [12] by scholars and experts. Its reliability was reported by using the internal consistency method and computing Cronbach's alpha of 0.81 for the entire tool (ibid). The third part of the questionnaire involved Spritzer's [13] psychological empowerment questionnaire, which had five dimensions of job meaningfulness, competence, independence, adequacy, and trust, which was classified in a Likert Scale from one (strongly disagree) to five (strongly agree). The total score of this part was 15 to 75 under the title of total index of psychological empowerment questionnaire. Its validity and reliability were confirmed by several studies conducted in Iran. The validity of this tool was qualitatively confirmed by the studies of Eskandari [14] and Zahednezhad [15]. Its reliability was also 0.93 in Khanalizadeh's [16] study by computing Cronbach's alpha. In Eskandari's study [14] the reliabilities were

between 0.79 and 0.85 for the sub-scales and 0.74 for the entire tool. In Zahednezhad's [15] study, its reliability was 0.84. The content validity indexes were computed as 100% for Spritzer's questionnaire [13] and 90% for time management questionnaire. Ten nurses in different wards, who were not part of the research population, were asked to determine the face validity of the tools (the level of difficulty or simplicity, qualitatively, clearness and comprehensibility of the tools). Some items were modified in writing by nurses and experts' discretion. To determine the reliability of the research tools, the internal consistency reliability by computing the Cronbach's alpha coefficient was used for both tools. The Cronbach's alpha coefficients were 0.87 for time management questionnaire and 0.89 for psychological empowerment questionnaire. After obtaining permission, the university ethics committee provided an informed consent to conduct the study, and the researcher visited the hospital and asked all nurses, who had the inclusion criteria for the study, to complete the time management and psychological empowerment questionnaires after explaining comprehensively the research objectives. Then, a one-day workshop of time management skills was held from 8 am to 12 am in two different groups, so that all nursing staff could participate in this workshop. At this workshop, the researcher discussed time management skills (including the importance of time management, time management obstacles, rules of time management, practical strategies for time management, causes of waste of time and the effect of time management on healthcare systems) and ensured that all of the audience had learned the skills well by conducting teamwork. After one month, the questionnaires were again re-distributed among the nurses and were completed by them in non-working time, with stating the objectives and with respect to

integrity and ethical considerations. In Khoddam and Kolagari's [7] study, the time management workshop was held on two subsequent days. One month after the workshop, self-report time management questionnaire was also available to the subjects. The SPSS21 statistical software and the paired t-test (and also the non-parametric Wilcoxon test) were used to compare groups and analyze the data.

## RESULTS

In this study population (60 nurses), fifty-two nurses were female and eight were male; most of them were in the age group of 20 to 30 and had Bachelor of Science degree in nursing. Also, from these nurses, some of them had a workshop or seminar attendance record (Table 1). The results of the study showed that the total mean score of time management was increased from  $76.73 \pm 7.22$  out of 90 before the intervention to  $83.85 \pm 5.97$  after the intervention. In the current study, the mean scores of dimensions of time management (goal setting, time management mechanics, control over time, and ordering and organizing) were significantly increased after the intervention ( $P < 0.05$ ) (Table 2).

The total mean score of psychological empowerment was significantly increased from  $60.38 \pm 8/61$  out of 70 before the intervention to  $66.26 \pm 5.83$  after the intervention ( $P < 0.05$ ). In the current study, the mean scores of dimensions of psychological empowerment (job meaningfulness, competency, independence, adequacy and trust) significantly increased after the intervention (Table 2). On the basis of the results of Table 1, the difference between subscales or dimensions of time management, before and after intervention was significant ( $P < 0.05$ ) (Table 2).

**Table 1:** Demographic Specifications of Research Unit

	Frequency	Frequency (%)
<b>Gender</b>		
Female	52	86.7
Male	8	13.3
<b>Age Group</b>		
20-30	32	53.3
30-40	32	65.3
40-50	19	37.1
More than 50	3	5.0
<b>Education</b>		
B.S	58	96.7
M.S	2	3.3
<b>Overtime status</b>		
Optional	19	31.7
Obligatory	41	68.3
<b>Seminar attendance record</b>		
Yes	10	16.7
No	50	83.3
<b>Nursing work experience</b>	Mean $\pm$ 8.12 $\pm$ 7.36	

**Table 2:** Comparison between the Mean Scores of Psychological Empowerment and their Subscales before and after the Intervention

Variable	Before intervention		After intervention		Wilcoxon Statistic	Probability value	Result significant
	Mean $\pm$ SD	SD	Mean $\pm$ SD	SD			
<b>Total empowerment</b>	60.38 $\pm$	8.61	66.26 $\pm$	5.83**	-6.15	0.0009	***P < 0.001
<b>Psychological</b>							
<b>Meaningfulness</b>	13.26 $\pm$	1.57	13.71 $\pm$	1.21	-3.75	0.0009	***P < 0.001
<b>Competence</b>	12.81 $\pm$	1.52	13.36 $\pm$	1.31	-3.71	0.0009	***P < 0.001
<b>Independence</b>	10.93 $\pm$	2.64	12.75 $\pm$	1.51	-5.57	0.0009	***P < 0.001
<b>Adequacy</b>	11.53 $\pm$	2.30	13.08 $\pm$	1.45	-5.42	0.0009	***P < 0.001
<b>Trust</b>	11.83 $\pm$	2.49	13.35 $\pm$	1.32	-5.49	0.0009	***P < 0.001
<b>Goal setting</b>	18.03 $\pm$	1.7	18.84 $\pm$	1.94	-2.95	0.003	**P < 0.01
<b>Time management mechanics</b>	16.93 $\pm$	2.30	18.36 $\pm$	1.85	-5.67	0.0009	***P < 0.001
<b>Control over time</b>	20.56 $\pm$	2.42	23.00 $\pm$	2.08	-5.67	0.0009	***P < 0.001
<b>Ordering and organizing</b>	21.20 $\pm$	2.70	24.00 $\pm$	1.82	-5.06	0.0009	***P < 0.001
<b>Time management</b>	76.73 $\pm$	7.22**	83.85 $\pm$	5.97**	-5.87	0.0009	***P < 0.001

Values are expressed as mean  $\pm$  SD; \*P < 0.05, \*\*P < 0.01, \*\*\*P < 0.001. The comparison between mean score of, time management and its subscales before and after intervention. Values are expressed as mean  $\pm$  SD; \*P < 0.05, \*\*P < 0.01, \*\*\*P < 0.001. Total

## DISCUSSION

In the present study, time management skills were measured in four dimensions of "goal setting", "time management mechanics", "control over time", and "ordering and organizing". The results showed significant increases of mean scores of all dimensions of time management after the intervention. In Khoddam and Kolagari's [7] study, which was conducted on employing supervisors of healthcare centres' of Golestan province, 82% of managers applied time management skills before training and this level was significantly increased to 95.2% after the training (P < 0.05) that was similar to the results of the current study. This increase was only on "control over time" and "ordering and organizing" dimensions, while in the present study, all of the four dimensions of time management skills significantly increased. The results showed significant increases of mean scores of all dimensions of time management. These results indicate the effectiveness of training programs on time management skills. In Nasri's [17] study, which investigated the correlation of supervisors' time management and job satisfaction of nurses of medical surgery wards of hospitals affiliated to Arak University of Medical Sciences, the mean score of time management was 144.84 out of 180, and 53.4% of supervisors applied time management skills. In Mamabolo et al.'s [18] study, which was conducted on factors influencing professional nurses' time management at a hospital located in South Africa, the results showed that the nurses did not have appropriate time management and spent more time on using the telephone, gossiping, and socializing among themselves instead of attention to the health needs of patients. These findings indicate that there is a great need for in-service education programs in the hospital, particularly on time management. Regarding the dimension of "goal setting and prioritizing", Dehghan Nayyeri and Salehi [19] stated that by setting priorities, the list of tasks will be examined again and the unnecessary tasks will be

removed. In Hosseinzadeh's [20] study, which was conducted on time management behaviours of nursing managers and empowering the staff of Tehran hospitals affiliated to the Social Security Organization, the mean score of managers' time management was 143.22 out of 180 and 50.3% of respondents applied time management skills. Psychological empowerment is an effective factor in increasing the efficiency of the organization; thus, in the present study, the researcher began to hold a training workshop for time management to increase the psychological empowerment of the nurses. The results showed that the level of psychological empowerment had a significant increase in all five dimensions (meaningfulness, competency, independence, adequacy, and trust). In Hosseinzadeh's [20] study, the highest mean scores belonged to "competency". This means that the nurses had enough dominance and skills for performing tasks. In Spritzer's [13] study, the dimension of "competency" also showed the highest mean score among the dimensions of psychological empowerment, which is in line with the findings of the present study.

The mean scores of the two dimensions of "independence" and "trust" were significantly different after training and were at the desired level, and it can be said that the nurses had more independence and freedom of action in performing tasks and had trust to delegate their assignments to their colleagues. The findings also showed that the mean score of the dimension of "adequacy" was significantly increased to 13.08 after training and the results indicated the level of nurses' influencing on ward's decision making. Sefidpoush Khameneh et al. [1] studied the correlation of management style of supervisors with empowerment of the nurses in medical surgery wards of hospitals affiliated to the Army of the Islamic Republic of Iran. They found that the level of psychological empowerment was high and the highest mean score was



related to “job meaningfulness”. They believed that the nurses valued their objectives and activities, the activity was considered important in their value system, and they invested by their mental power. In this study, it was shown that job activities were also important for individuals personally, which is in line with Eskandari’s [14] study. However, the mean scores of the dimensions of “independence” [15] and “trust” [1, 15] were below the mean and the authors felt that nurses had limited authorities in the presence of the doctors and did not have the required independence to perform the necessary tasks. It can be said that their activities depend on doctors’ activities, which is not in line with the present study. Also, in Zahednezhad’s [1, 15] study, the mean score of the dimension of “adequacy” was 3.25, which was at the average level and is not in line with the present study. The results of this study showed that time management skills’ training caused an increase in psychological empowerment of the nurses, which is in line with some studies [14, 15] and that nurses had relatively desired capability.

## CONCLUSIONS

According to the importance of application of time management skills in the nursing profession, this study indicated that the training of these skills is effective in

improving nurses’ performance through applying short-term training programs or holding training workshops.

## ETHICAL CONSIDERATION

Code of Ethics this article was published on IR.SBMU.IASB.REC by the Ethics committee of the University of Shahid Beheshti

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## Authors’ Contribution

Introduction and data collection and methodology and discussion by were written by Manijeh naderi – Roqayeh Ghasemi Hamzehkola

## Conflicts of Interests

There was no conflict of interest.

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