



## Do you believe in prophecies? Self-fulfilling prophecies in nurses: A descriptive qualitative study

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**Abstract.** *Purpose.* The study aims at revealing the role and meaning of perceived leader expectations and beliefs in nurses' high performance. *Study design.* This qualitative descriptive study included ten nurses and two supervisors who were selected using purposive sampling technique and their two supervisors. Data were collected by semi-structured interviewing and evaluated using content analysis. *Findings.* The data revealed four themes of the Pygmalion effect on nurses' performance, and these themes represented four consecutive steps of the pygmalion effect. These themes stated as the "Pygmalion process" were conceptualized as 1) formation, 2) transmission, 3) perception and internalization, 4) reflection, respectively. Leaders' expectations about nurses' performance and success, and their beliefs about nurses' abilities were found to be important for nurses. When these beliefs and expectations were perceived by nurses, they resulted in high performance. Nurses, who perceived positive expectations conveyed by leaders through different channels, had the tendency to respond to these expectations with high performance. This expectation effect emerged within a four-stage process, and this process included the emergence of the expectation which was formed before the first impression, and the steps of a complex process transmitted through many verbal, nonverbal, formal and informal communication channels. *Research limitations.* the small number of participants in the study can be considered as the first limitation. The sample size should be increased with more participants (study groups) to develop more comprehensive understanding with future studies. Since the data of the study is based on self-reports, possible response bias can be considered as another potential risk, and this situation was tried to be overcome by interviewing the head nurses as well as the nurses. Considering that positive leader expectations can be an antecedent to different positive organizational outcomes as some other recent studies showed, searching for the relationship of the Pygmalion effect with different outcomes will contribute to the literature. This study conducted with the nurses examines the Pygmalion effect of the leaders' positive expectation. For future studies, holistic research can be carried out by choosing healthcare employees using the expectation effect, and other versions such as Galateas and Golem. *Value of the results.* This is a qualitative study on the relationship between perceived leader expectations and beliefs in nurses' high performance by evaluating the role of Pygmalion effect.

**Keywords:** expectations, self-fulfilling prophecy, Pygmalion effect, nurses, qualitative study.

## Introduction

People expose to many beliefs and expectations, both from other people or themselves. Expectations are an important trigger of human behavior, and they can influence the way to be followed and the outcome of the behavior.

At first, the role of expectations in human life has been examined in the field of psychology, and then social psychologists, academics and other researchers have increased their attention searching in many work contexts. The effects of expectations on students' and employees' performance and success have been attempted to be revealed. As a result of the studies conducted, the concept of self-fulfilling prophecy has been emerged by referring to "a situation that was initially defined and perceived as wrong, will occur by awakening a new behavior that will lead to the fulfillment of the wrong thought" (Merton, 1948, p. 195). The theoretical foundations of self-fulfilling prophecy, which was first used by R. K. Merton in the literature, have been based on the Thomas theorem. The theorem states that "if a situation is perceived as real, the consequences of this situation will be the person's reality" (Wiley, 2003, pp. 506–507). According to the theorem, one's perception will affect how events will result in. In other words, people who encounter the same situation with different perceptions, beliefs and experiences will be able to obtain different results. Starting from this current theorem, R. K. Merton has defined the self-fulfilling prophecy as "the misperception of a situation in the beginning will be awakening a new behavior that actually will cause the wrong thought to be fulfilled" (Merton, 1948, p. 195).

R. K. Merton states that people's wrong expectations will come true because people will create their own reality by changing their behavior in order to fulfill the expectations of others (Merton, 1948). Thus, what is actually wrong will turn into truth (right). In this case, the direction of the expectation in other words the belief will affect the direction of the behavior and the result as well. If the perceived expectation is positive, the result will be positive, and if it is negative, it will be negative. Based on this, the literature focuses on different types of self-fulfilling prophecy. One of them is the Pygmalion effect, which can be described as the positive version of the self-fulfilling prophecy, which states that the positive expectation of others (in fact, an authority figure) will result in positive results. A study conducted by R. Rosenthal revealed that teachers' different treatment to their students in four dimensions caused the Pygmalion effect and developed the Four factor theory regarding the expectation effect (Rosenthal, 1994). According to R. Rosenthal, these four factors that has been stated to cause the Pygmalion effect are as follows: climate, input, output and feedback. Climate refers to creating a warm and friendly atmosphere for students; input, providing opportunities for students to develop their skills; output, providing students with opportunities to practice their skills and feedback means providing performance-based feedback to students (Madon et al., 2011).

In the context of management, the Pygmalion effect is expressed as the effect that the increase in the expectations of the managers regarding the performance of their subordinates causes an increase in the performance of the subordinates (Eden, Kinnar, 1991). Therefore, according to the "Pygmalion effect", the subordinate, who perceives the manager's belief about her (his) ability, is expected to change his behavior according to this expectation. In the literature, some processes related to how this effect occurs have been stated. Accordingly, it is identified that the Pygmalion process typically starts with the leader's positive expectations, then these expectations are effectively delivered to the employees, and it continues with the development of the employees' self-expectations in the workplace which results in an increase in the employee performance (Eden, 1984; White and Locke 2000).

C. D. Sutton and R. W. Woodman state that the “Pygmalion effect” begins when a person develops expectations about another person’s behavior, and these expectations are conveyed to the target individual, probably unconsciously, who receives the expectations and ultimately changes her (his) behavior according to these expectations (Sutton, Woodman, 1989). The other self-fulfilling prophecy that has theoretically common background with the Pygmalion effect and represents equivalent counterparts is the “Golem effect” (Stoicescu, Ghinea, 2013). The “Golem effect” states that negative manager expectations will result in negative results. As a result of this effect, an inevitable decrease is expected in the performance of the subordinates, or the level of success is obtained lower than she (he) can reach (Reynolds, 2007). Another kind of self-fulfilling prophecy is the “Galatean effect”. Unlike the Pygmalion and Golem effects, the “Galatea effect” considers one’s own expectations, not someone else’s expectations. In other words, the positive result in the Galatea effect is caused not by the expectations of the manager, but by the self-expectations of the subordinate.

Many managers tend to reflect performance expectations about their subordinates to their subordinates (Eden, Kinnar, 1991). Therefore, the effects of Pygmalion and Galatea effects are naturally observed together, and it is difficult to distinguish them from each other, however, the researchers stated that the Galatea effect can also occur through different tools apart from the manager. The results of the some studies showed that the increase in managerial expectations towards some subordinates creates the Pygmalion effect, and the Pygmalion effect causes the Galatea effect to be seen in some subordinates (Eden, Ravid, 1982). For this reason, it is also stated that the Galatea effect is a part of the Pygmalion effect (Kierein, Gold, 2000). Studies on self-fulfilling prophecy seem to have started with an experiment by R. Rosenthal and L. F. Jacobson on the effects of teachers’ expectations on students (Rosenthal, Jacobson, 1968). As a result of the experiment, it was revealed that one person’s expectations will affect another person’s behavior and that it will act as a kind of self-fulfilling prophecy, primarily in the field of education, which led to a large number of studies on this subject, and in many experimental studies, results confirming the Pygmalion effect were obtained (Babad, 1985; Li, 2016; Reynolds, 2007).

King’s research on industrial trainees in 1971 was the first study to investigate the Pygmalion effect outside of educational institutions (Eden et al., 2000). Based on these findings, D. Eden and G. Ravid have looked for an answer to the following question: “If teacher expectations increase students’ performance, can the manager’s expectations increase the productivity of the subordinates?” (Eden, Ravid, 1982) and confirmed the external validity of the Pygmalion effect with their research among military staff (Eden et al., 2000). D. Eden made the first trial of the Pygmalion effect on groups without separating subordinates as control and experimental groups (Eden, 1990).

With the findings obtained from this study, implications such as the Pygmalion leadership approach in business organizations, the use of the Pygmalion effect in the organizational development and consultancy have started. In recent studies, it has been investigated that the relationship of the Pygmalion effect not only with performance but also with different positive organizational outcomes such as employees’ creativity behaviors, organizational green behaviors, and work engagement is seen (Mo et. al., 2021; Tierney, Farmer, 2004; Veestraeten et al., 2021).

The first research on the Golem effect was also conducted in educational institutions, and the concept was first used by E. Y. Babad with colleagues in the field of education, it was determined that low or negative teacher expectations were used by these researchers to express the negative effect on students (Babad et al., 1982; Eden et al., 2000, p. 172). It is seen that there are fewer studies on the Golem effect in the literature compared to the Pygmalion effect. However, there are important studies confirming the Golem effect (Babad et al., 1982; Davidson, Eden, 2000; Oz, Eden, 1994; Reynolds, 2007).

When the studies on self-fulfilling prophecy in the literature have been examined, it is seen that most of them are in the field of education and investigate the relationship between teacher expectations

and students' performances. Studies investigating the effect of Pygmalion in the field of nursing were examined, but no study was found on the performance of nurses. However, finding out the factors affecting the performance of the nurses is essential for the effectiveness of nursing services. Because the job performance of nurses directly affects the quality of patient care services. Thus, many studies have been conducted in the literature on the factors affecting nurses' performance. In the literature, however, no study has ever evaluated how nurses' performance affected by the leader's (perceived) expectations and beliefs through their abilities. The studies reached in the literature review are the ones on the effects of nurses' positive expectations on the quality of life of patients. In the study, in which the effect of nurses' positive expectations on the recovery of scoliosis patients was investigated, researchers found that nursing practices based on the Pygmalion effect can effectively alleviate negative emotions associated with scoliosis and improve the quality of life, therefore the Pygmalion effect is considered as worthy for clinical practice (Ying, Fu, 2020). In another study investigated the Pygmalion effect on nursing home residents it was found that the positive expectation of nursing home health employees had an effect on the elderly (Learman et al., 1990).

Performance is accepted as a very important parameter in nursing services (Platis et al., 2015). Because performance in nursing services is the evaluation of the effectiveness of providing nursing care to patients and is the most important factor in patient care (Fateme, Enayatollah, 2016). In addition, the performance of nurses is an important determinant of the quality and success of nursing services in a hospital (Sinaga et al., 2020). For this reason, it is very important to determine the factors affecting the performance of nurses, and studies on the performance of nurses and the factors affecting their performance continue to be conducted in the literature. However, in the literature review, there was no study found investigating how leaders' (perceived) expectations are reflected in nurses' performance. Besides, the following authors have contributed by providing some suggestions to be searched. Ch. Platis with colleagues investigated the relationship between performance with different variables, including leadership, in their study in which they investigated the relationship between job satisfaction and the performance of healthcare employees (Platis et al., 2015). In other study, head nurses evaluated the performance of nurses in different services, however, they suggested to conduct more studies with the limited number of head nurses to evaluate the nurses (Fateme, Enayatollah, 2016). N. Zahrah with colleagues investigated the effects of head nurses' support on nurses' performance and suggested that the head nurse-nurse relationship was very effective on nurses' performance and the relationship between these two structures should be investigated further (Zahrah et al., 2019).

Within this context, the current study aims at revealing the place, meaning and importance of the positive expectations of the head nurses in the high-performance levels of the nurses. With the findings obtained from the current study, it is considered that by determining the role of the expectations of the head nurses on the performance, and when this expectation is conveyed, it can contribute to the practitioners on how nurses can increase their performance and success and contribute to the literature with the new information obtained from the research.

## Methods

In this study, qualitative research method was preferred. While choosing the method, the characteristics of the research subject and the characteristics of the method were considered. The perception of expectations, which is the subject of research, and the effect of the expectation, role and meaning are subjective, that is, it varies from person to person. As it is stated in the definition of the concept, when the person perceives the expectation, she (he) will form her (his) own reality with this phenomenon.

In other words, people who experience the same situation but have different perceptions, beliefs and experiences will be able to achieve different results. In addition, the context in expectations is also very important. The perception, direction and result of the expectation effect can be different even on the same person in different conditions and at different times. Z. Mo with colleagues have suggested in their study investigating the effect of Pygmalion on employees in production enterprises to conduct qualitative research method to understand in depth the effect of how leaders affect subordinates (Mo, Liu, Wu, 2021). From this point of view, it was thought that the qualitative research method would allow a holistic, flexible, and in-depth understanding and information about the subject studied, for this reason, the qualitative method was preferred. Because qualitative research tries to look at a wide variety of interrelated processes or causes and obtain detailed information (Becker et al., 1961; Al Jasmi, 2012) and generally aims to reach the daily realities of some social phenomena and examine them as they are applied (Asad, 1986).

The method used in this study is a type of descriptive phenomenological approach, which is a subtype of the phenomenological approach. Phenomenology is a method that aims to reveal the meaning of individuals' experiences related to a phenomenon (Kiral, 2021; Manen van, 2014). It can be said that the descriptive phenomenological approach particularly focuses on revealing and describing lived experiences (Creswell, 2013). Many researchers consider the strengths of the phenomenological approach to include providing an opportunity to understand and explain individuals' personal experiences (Creswell, 2013). Another advantage of this approach is that it helps researchers understand differences in individuals' experiences (Manen van, 2014). Therefore, in this study, a descriptive phenomenological approach was adopted to understand the experiences of the participants related to their expectations of a leader. This approach aims to understand participants' experiences by using qualitative research techniques such as in-depth interviews and open-ended questions (Kvale, Brinkmann, 2009). The procedures recommended by Elo and Kyngas (2008) were followed in analyzing the data obtained in the study.

### **Participants**

The study group of this research consisted of nurses ( $N=10$ ) who work in a hospital in Turkey. These nurses have been working in general care and intensive care units, and these two units have been supervised by different head nurses ( $n = 2$ ). Before starting the study, the head physician of the hospital was interviewed, and information was given about the study. The head physician of the hospital was a person whom one of the researchers had known and communicated with for many years due to his personal relationships. With the help of the head physician, the participants were determined. Purposive sampling method was used to determine the study group. Since the aim of this study was to reveal the role of the expectations of the head nurses in high performance, it was decided that the participants would consist of nurses with high performance. Thus, it would be possible to understand whether the expectations of the leaders had an effect on their high performance. However, considering that they need to work together for a certain period in order for the expectation to be formed, perceived and reflected on the performance, the condition was specified that the participant nurses should have worked with the same leader in at least one performance period. Accordingly, the criteria for inclusion of nurse participants in the study have been identified as follows: it was determined as "to have a high-performance score according to the in-house performance evaluation method" and "to have worked in the unit to which it is affiliated at least one performance period". At the same time, interviews were held with the head nurses to learn whether the expectations perceived by the participant nurses and the expectations of the leaders were similar, and to learn the perspectives of the leaders. Since head nurses are in constant communication with nurses, they have a very important role in performance evaluation (Fateme, Enayatollah, 2016). As it is seen in

Table 1, four of the participant nurses were working in clinics and six were working in intensive care units. The nurses were between the ages of 21 and 35, six of them were women. Two had high school degrees, six had associate degrees and two had bachelor's degrees. Both head nurses were male, and both had bachelor's degrees. The thematic saturation principle was adopted in determining the size of the study group consisting of nurses and it was thought that the data reached saturation when new themes and categories could not be created, and similar statements were used by the participants (Bengtsson, 2016).

Table 1. Characteristics of participants

Participant	Age	Gender	Tenure (Year)	Education	Unit
Head Nurse 1 (HN1)	41	Male	16	Bachelor's Degree	Clinic
Head Nurse 2 (HN2)	46	Male	18	Bachelor's Degree	ICU
Nurse 1 (N1)	35	Female	12	Bachelor's Degree	Clinic
Nurse 2 (N2)	35	Female	15	Bachelor's Degree	Clinic
Nurse 3 (N3)	23	Male	3	Associate Degree	Clinic
Nurse 4 (N4)	22	Female	3	Associate Degree	Clinic
Nurse 5 (N5)	21	Male	2,5	High School	ICU
Nurse 6 (N6)	25	Female	5,5	Associate Degree	ICU
Nurse 7 (N7)	25	Female	6	Associate Degree	ICU
Nurse 8 (N8)	24	Male	5	Associate Degree	ICU
Nurse 9 (N9)	25	Male	7	Associate Degree	ICU
Nurse 10 (N10)	24	Female	6	High School	ICU

## Procedure

Face-to-face interviews were conducted with the participants in January 2021 by two researchers using semi-structured interview forms. By making an appointment, interviews were held in an interview room at the hospital where the participants work. Interviews with the nurses were audio-recorded and lasted 50–65 minutes. The interviews with the head nurses lasted (approximately) 80 and 90 minutes and were recorded separately by the two researchers. The interview recordings were then transferred to the computer as a Word document by other researchers. In the interviews, the nurses were first congratulated for their high job performance and asked about the factors affecting their success (What were the factors that contributed to your success? Which factors affected your success? How did your manager's beliefs about your abilities affect your success? In the current study, the nurses were asked to give objective examples.

They were asked to describe an event that they experienced, and descriptive descriptions of how they felt while defining their experiences and the environment in which the event took place were also asked. In the interviews with the head nurses, they were asked about their opinions, beliefs, expectations about each nurse who work with them, how these expectations were formed and what were done about them. Face-to-face interviews were made with all the participants once, and the participant's confirmation was obtained by making a phone call for the themes that emerged in the analysis results.

## Ethical considerations

We asked for the verbal and written consent of the participants before the interview. We explained the objective and the scope of the research to the participants and stated that participation was totally voluntary, and they had the right to quit at any phase they want. Participants were informed that the interview data would be confidential, and it would not be shared with any person or institution. However, as it can be seen in the paper that some of the information obtained were shared to form the themes, and the verbal consent was taken to be included in the study. We coded

the participants and changed their specific personal information to conceal their personal identity and information they gave (Like Head Nurse = HN, Nurse = N, CL = Clinic, ICU = Intensive Care Unit). Süleyman Demirel University Ethical Committee approved this study with their decision numbered 02.05.2019-73/1.

### **Data analysis**

We transferred the interview transcripts to the “Maxqda 18” (qualitative software) data analysis program (Verbi Software, 2018) and the primary investigators conducted the first analysis. The other investigators who were not present in the interviews listened to the interview recordings and read the transcripts to conduct their analysis. We analyzed the data with inductive and deductive content analysis (Elo, Kyngas, 2008). The first analysis of the data was conducted with inductive content analysis, and because of the analysis, the themes were conceptualized as the stages of the Pygmalion effect process. The Pygmalion effect statement was used as a framework while determining the stages of the process (Sutton, Woodman, 1989). However, the authors’ Pygmalion statement did not limit the formation of themes, categories, and codes. Inductive content analysis was carried out in three stages: open coding, creating categorization and abstraction (Elo, Kyngas, 2008).

In the first stage, open coding was done. At this stage, the words, phrases, sentences, and paragraphs that make sense were defined as codes by reading the documents. In the second stage, coding pages were formed, and codes thought to be related were collected and grouped freely. At this stage, similar coding pages were brought together and defined in categories. In the last stage, the abstraction stage, the themes were defined under the main themes that express the stages of the process in accordance with the content.

As the participant nurses’ statements about how they perceived and internalized the leader expectations were read, the relationship with Rosenthal’s Four Factor Theory was noticed and the categories belonging to the theme of “perception and internalization”, which was conceptualized as the third stage of the process, were derived by deductive content analysis. Deductive content analysis is often based on previous studies such as theories, models, mind maps, and literature reviews (Sandelowski, 1995; Polit, Beck 2004; Hsieh, Shannon, 2005; Elo, Kyngas, 2008). In this study, the categories of the theme constituting this stage of the process were based on the Four Factor Theory.

Five investigators started the analysis independently with systematic coding of the data. The analyzed patterns are identified as either a word or a paragraph. The investigators compared the coding tree diagram gained through verbal material in the meetings, restructured them several times and pursued these meetings until they reached a consensus. We considered reaching theoretical saturation after we were not able to deduct any new themes or concepts from the verbal material. Since the native language of the investigators is Turkish (participants speak the same language), data analysis is conducted in Turkish. The language is translated into English while presenting the findings.

### **Trustworthiness**

We conformed to credibility, transferability, dependability, and confirmability criteria to provide trustworthiness (Lincoln, Guba, 1986). To provide the trustworthiness we directly reflected the participant statements and shared the main theme and the category with some participants for approval. The credibility of the study was enhanced by describing the data collection and analysis process in detail and computerized analysis. To conform to credibility criteria, we pursued discussing the findings until reaching a consensus among the investigators We referred to related literature and discussed the findings to reflect the facts to the maximum extent and to provide confirmability.

## Results

As a result of the analysis of the interview transcripts made with the participant nurses and head nurses, it was understood that the positive expectations perceived by the nurses were effective on their performance, and they had the tendency to respond to the positive expectations with high performance. Four themes emerged in the analysis. This theme is conceptualized as the sequential stages of the self-fulfilling prophecy process. Themes, categories, and codes are presented in Table 2.

Table 2. Themes, categories, and codes

Theme	Category	Code
Stage 1. Emergence	Expectations emerged before the first impression	Information obtained from CV
	Expectations emerged at the first impression	Interview, pre-interview
Stage 2. Delivery	Through verbal, non-verbal, written formal communication	Performance meetings, job descriptions, responsibilities, formal in-house communication channels (such as e-mail, phone)
	Through verbal, non-verbal, written informal communication	Social media messages, phone messages, informal meetings, body language movements
Stage 3. Perception and internalization	Climate	Approval signs, smile, encouragement and reinforcement, close connections
	Input	Giving difficult jobs and responsibility
	Output	Trainings, asking their opinions in some cases and decisions
	Feedback	Giving information about the positive and negative work outcomes
Stage 4. Reflection	Increase in performance	Productivity, motivation
	Increase in positive organizational behaviors	Commitment to job, extra role behaviors, voluntary help behaviors
	Reflections on social life	Successes obtained in daily life, increase in self-confidence

### Emergence stage: Emergence of the expectation

This theme included the head nurses' comments about nurses and represented the first stage in which expectations about nurses were formed. This first stage was also explained by two head nurses. The head nurses mentioned that they evaluated the nurses during the examination of the job application files, and through the recruitment interviews. In both situations, the head talked about that they had a positive feeling about these nurses' success.

*"When I looked at the application file, I saw that she had previously worked in a regional and a university hospital. I thought that she would also provide contributions to the development of other nurses" (HN1). "I was not surprised, actually, the answers she gave during the interview made me understand that she had a good command over the job, knowledgeable and experienced" (HN2).*

### Delivery stage: Delivery of the expectation to the nurses

This theme included the narrations and the conversations of the head nurses stating how the expectations, trust, and belief from nurses were conveyed, and this was conceptualized as the second phase of the process. In this theme, the head nurses explained both the formal and informal communication channels together. They also talked about the official department meetings and mentioned that they showed their trust and belief in nurses with words of praise, sometimes a thank you, sometimes an assignment as a service manager, and sometimes just a smile.

*"The service can be very busy sometimes, it can be difficult when it's busy, in such situations, "I know you can do it", that's what I tell her the most..." (HN1 talks about N3).*



*“He was very young, it was his first job, he was inexperienced compared to others, so there were a lot to learn... I made him the nurse in charge (smiles)” (HN2 talks about N9).*

### **Perception and internalization stage: The perception and internalization of the expectation by the nurses**

This theme included nurses' comments and represented the third stage in which the expectation effect was perceived and interpreted. In this theme, R. Rosenthal's Four Factor Theory was used as the framework for the categories, and statements about emotional, warm environment and close relationships were categorized as “climate”, giving responsibility, giving difficult tasks, setting difficult goals were categorized as “input”, asking about the ideas, opinions and providing training opportunities were categorized as “output”, and statements about positive or negative information about performance and work were categorized as the “feedback” (Rosenthal, 1994). We noticed that some of the nurse's statements that formed this theme were similar to those of the head nurses, and regarding this similarity, we thought that the message that the head nurse wanted to convey in order to show the expectation was perceived correctly by the nurses.

*“Sometimes we can understand with a glance, sometimes with a sentence. I can't tell you that he approves me with this sentence, but I can understand it from his looking at me” (N1-CL).*

*“As my manager thought I was a bit more talented than my other friends, he gave me a responsibility... he gave priority and a title of responsibility” (N9-ICU). “We work in the children's service... When I offer to buy toys or other things for children, he respects my opinion, immediately provides them and asks if there is anything missing” (N2-CL).*

### **Reflection stage: The emergence of the expectation effect**

This last theme emerged with the narrations of the nurses, and these were the representatives of the expectation effect's outcomes and consequences. The theme included the nurses' efforts and work outcomes in order not to let this belief in vain when they perceive their head nurses' belief in them; the increase in self-confidence caused by their beliefs and expectations; increased commitment to the institution and the job, and also the current theme included statements about its reflections outside of work life.

*“...the head nurse knows that I can do it, so I show more effort to do it with great attention... This increases my motivation to work” (N10-ICU).*

*“We start a certain step because they encouraged it in the first place. Later, with this courage, we also feel our potential and try to obtain more. After that, we say it to ourselves that we can do it. No matter how hard I try, I can do it, but I wouldn't even have thought of it if there was no one to encourage me and made me think that I am an ordinary person and I wouldn't have done it. The first step stems from the effort after the encouraging and supporting behaviors... When we start our occupational life, we become an ordinary nurse. So was I. I was a polyclinic nurse. Then I had given responsibilities. They had always seen the light/capacity in me, and as they offered new opportunities for me, I went further. Although I have had better offers, I did not think changing the institution” (N2-CL).*

*“When I first started dialysis unit, I really didn't know anything. When they put a set device in front of me. I didn't understand anything. Then, my manager supported me and made me see what I have done so far, and he added and said look what you have accomplished so you can also adapt to this unit. With great motivation, I said okey, I would do it. I took the notebook of my friend she took notes, watched a video on the internet, consulted our doctors and searched about it. Then my device changed. It was easy for me too. That's why I have a lot of experience in the dialysis devices that were taken. I have had patients on two devices at the same time. My manager said how? I was also surprised. I was stubborn and said it to myself many times that I will learn. My manager transferred me from another intensive care unit, and I thought that it was not possible for me to understand this unit and said I couldn't do it.*

*She said that I can do it. Now, dialysis has become my life. She has added a lot of contributions. And she says it is good that you have become like this.” (N6-ICU).*

## Discussion

The findings of this study showed that nurses who perceived their leaders' positive expectations and beliefs about their abilities tended to respond with high performance. Accordingly, this study revealed the four-stage fulfillment process of the self-fulfilling prophecy. These four stages are conceptualized as follows: formation; transmission; perception and internalization and reflection.

This study confirmed the findings of previously conducted studies that highlighted the certain stages of the self-fulfilling prophecy fulfillment process and also confirmed the studies that suggested different models, however in the meantime unlike other studies, revealed the perspectives of different actors by examining these processes (Eden, 1984; Snyder, Stukas, 1999; Sutton, Woodman, 1989). In addition, it also revealed a slightly different picture in terms of the steps of the prophecy and the methods used by the parties in these steps.

Similar to previous studies, the current study also defined the formation of the leader's expectation at the beginning of the prophecy fulfilling process (Eden, 1984; Sutton, Woodman, 1989). However, in some studies in the literature, self-fulfilling prophecy is expressed as a process, but the reasons of the emergence of the perceivers' beliefs are unclear (Stukas, Snyder, 2016). The authors say that although there are some stereotypes about this, many studies use randomly assigned and experimentally manipulated expectations to test the effects of expectations. While these provide precise and systematic tests of the causal effects of expectations, they also tend to move away from the question of the origins of expectations, as their causes are provided by experimental manipulations controlled by researchers (Stukas, Snyder, 2016). In this study, this question was partially answered, and provided an idea about how the expectations of the head nurses about the nurses were formed. Accordingly, this study revealed that the expectations of head nurses about some nurses were formed as soon as they obtained personal information such as education and experience before the first impression, while for others, it is formed during the first impression at the interview stage with the help of the determinants such as the attitude they showed, the answers they gave, and the excitement that they felt towards the job.

This study showed that leaders had conveyed these expectations to nurses by using formal channels such as performance meetings, task distribution charts, responsibility, unit meetings, as well as informal channels such as social media posts and messages, informal unit meetings, body language movements, and thus it was found out that this transfer was maintained with both verbal and nonverbal communication types. Similarly, how and when teachers say something, their facial expressions, body language and even their touches may have conveyed the message that teachers expect high performance from their students (Rosenthal, Jacobson, 1968). And it was also emphasized that this way of communication may affect students' self-concepts, self-expectations, motivations, perception styles and abilities (Gündüzalp, Boydak Özkan, 2019). A. Priyabhashini and V. R. Krishnan mentioning this issue in their studies stated that the expectations of the managers can be conveyed to their subordinates through all kinds of verbal, non-verbal, formal and informal ways (Priyabhashini, Krishnan, 2005).

The current study also indicated that the theoretical context of Rosenthal's four factor theory has been a valid context in the perception and internalization of the expectations of nurses' leaders from them, and that the process which expressed as climate, input, output and feedback has been used in the perception of expectations. Accordingly, the nurses participated this study had perceived and internalized as the indicators of high expectations of their head nurses' warm and sincere speeches, close

connections, statements of encouragement and reinforcement, giving themselves some responsibilities, asking their ideas and opinions, and giving information about the results of their work. The results of some studies conducted in the literature have been provided evidence with these findings (Amini, 2016; Manata, 2012; Niari et al., 2016). Increasing attention to subordinates, informing them about the activities, respecting subordinates' views and ideas have been important in perceiving expectations in terms of appreciated and qualified feedback (Priyabhashini, Krishnan, 2005, p. 487).

Finally, the current study revealed that this perceived and internalized high expectation caused an increase in productivity, motivation, and depending on these two factors performance of the employees increased. Similar to this finding, in the experimental research named "Expectancies as determinants of performance" the researcher had looked for an answer to the following question "Are high expectations effective in improving the performance of low-performing groups?", and as a result it was revealed that high expectations increased performance (Korman, 1971).

In the study consisted of experiment and control groups conducted in Israel Defense Forces by Eden and his students the results that they obtained showed that compared to control groups the performance of the experiment groups had been observed improvements and their high expectations resulted in higher performance (Eden, Ravid, 1982; Eden, Shani, 1982). Besides, in this study, it was also understood that perceived high expectations had a spillover effect, and in this context, it caused not only an increase in performance, but also some positive organizational outcomes such as extra-role behaviors and organizational commitment.

Based on this finding of this study, we think that the Pygmalion effect may encompass more than its initial definition and may be the antecedent of not only performance but also many organizational positive outcomes that managers of the organizations desire. In line with this finding of the study, M. Veestraeten with colleagues found out that positive leader expectations encourage work engagement of the employees, and Z. Mo stated that the Pygmalion effect also perceived as valid for organizational green behaviors (Mo, Liu, Wu, 2021; Veestraeten et al., 2021). Another finding obtained in this study is that the Pygmalion effect caused an increase in self-confidence and self-expectation.

While this situation was compatible with the findings of some studies and it was stated that the manager reflects the performance expectation to his subordinates, thus this supports the view that the effects of Pygmalion and Galatea have been naturally perceived together (Bayram, 2014; Manav, 2018; Seymour, 2009; Eden, Kinnar, 1991; Eden, Ravid, 1982). Leader expectations could be considered as an antecedent of the self-concepts of the employees (Duan et al., 2017; Mo et al., 2021). The study investigated the relationship between self-efficacy and performance of the nurses conducted revealed that there was a positive relationship between performance and self-efficacy, and they suggested that studies should be carried out to increase nurses' self-efficacy (Sinaga et al., 2020). It was thought that this current study provided contribution to this suggestion of partially.

### **Limitations and recommendations for future research**

Some limitations of this study are needed to be addressed. First of all, the small number of participants in the study can be considered as the first limitation. The sample size should be increased with more participants (study groups) to develop more comprehensive understanding with future studies. Since the data of the study is based on self-reports, possible response bias can be considered as another potential risk, and this situation was tried to be overcome by interviewing the head nurses as well as the nurses. However, when the subjective state of expectations is considered, self-report may be thought as the most appropriate strategy. In addition to interview, differentiating the data sources such as observation of the current situation, more information can be obtained. Nevertheless, new data can be obtained with further studies with different methods (quantitative

and mixed) and different perspectives. Besides, considering that positive leader expectations can be an antecedent to different positive organizational outcomes as some other recent studies showed, searching for the relationship of the Pygmalion effect with different outcomes will contribute to the literature. This study conducted with the nurses examines the Pygmalion effect of the leaders' positive expectation. For future studies, holistic research can be carried out by choosing healthcare employees using the expectation effect, and other versions such as Galateas and Golem.

## Conclusion

This study showed that when head nurses perceived that they had high expectations and beliefs about their abilities and performance, nurses have the tendency to respond to these beliefs and expectations with high performance. This current study provided new data to the national context defining this situation in four stages in which different actors played a role and presented contributions to the understanding of the meaning and role of manager expectations in performance.

This study revealed that positive manager expectations and beliefs positively affected the performance of subordinates, therefore it was found out that the prophecy was self-fulfilling. It is important for subordinates whether managers believe in their abilities and their expectations about their performance, and they have the tendency to respond to their managers as they expect. Even when managers think they say nothing to their subordinates, they may be telling a lot; their smiles, questions, or even their silence may mean something to their subordinates. This current study showed that this delivery affected the performance of subordinates. Therefore, managers must be able to convey their positive expectations to their subordinates and provide a suitable environment for them to perceive that they are special and important. In order to do this, Pygmalion leadership trainings, open communication channels, reward and incentive mechanisms, and well-functioning feedback mechanisms are needed. This current situation may provide contributions to the increase in the nurses' performance.

The following results are thought as striking by providing evidence for the contemporary literature. Thus, considering the importance of effectiveness of the nurses in health care services, this study revealed that the positive expectations of leaders resulted in high performance of the nurses. This potential effect emerged through a four-stage process in which the leaders expectations started shaping before the first impression. Besides, several personal and situational factors played an important role in the perception of the expectation effect. Finally, it was found out that the leaders' expectation effect had a spillover effect which not only affected the work performance of the nurses but also their contextual performance and social life.

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# Вы верите в пророчества? Самореализующиеся пророчества в работе медсестёр: описательное качественное исследование

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**Аннотация.** *Цель.* Исследование направлено на выявление роли и значения предполагаемых ожиданий и убеждений лидера в эффективности медсестёр. *Дизайн.* В данное качественное описательное исследование были вовлечены десять медсестёр, которые были отобраны с использованием метода целенаправленной выборки, а также два их руководителя. Данные были собраны с помощью полуструктурированного интервью и обработаны с помощью контент-анализа. *Результаты.* Были выявлены четыре темы, связанные с «эффектом Пигмалиона» в работе медсестёр. Эти темы представляют четыре последовательных этапа реализации эффекта Пигмалиона и были сформулированы как «процесс Пигмалиона»: 1) формирование, 2) передача, 3) восприятие и усвоение, 4) рефлексия. Было обнаружено, что ожидания руководителей в отношении работы и успеха медсестёр, а также их убеждения в способностях подчинённых важны для медсестёр. Когда эти убеждения и ожидания руководства были восприняты медсестрами, они привели к высокой производительности. Медсестры, которые восприняли положительные ожидания, передаваемые лидерами по разным каналам, имели тенденцию реагировать на эти ожидания с высокой эффективностью. Этот эффект ожидания возник в рамках четырёхстадийного процесса, который включал в себя возникновение ожидания, сформировавшегося до первого впечатления, и этапы сложного процесса, передающегося по вербальным, невербальным, формальным и неформальным каналам коммуникации. *Ограничения исследования.* Первым ограничением можно считать малое количество участников исследования. Размер выборки следует увеличить за счёт большего числа участников (исследовательских групп), чтобы получить более полное представление в будущих исследованиях. Поскольку исходные данные основаны на самоотчётах, возможную погрешность ответов можно рассматривать как ещё один потенциальный риск, и эту ситуацию можно преодолеть путём опроса медсестёр и старших медицинских сестёр. Учитывая, что положительные ожидания руководителя могут предшествовать различным положительным организационным результатам, как показали некоторые другие недавние исследования, поиск взаимосвязи эффекта Пигмалиона с различными организационными переменными внесёт свой вклад в литературу. Это исследование, проведено на выборке медсестёр. В дальнейшем можно провести целостное исследование путём выбора работников здравоохранения с использованием эффекта Пигмалиона и других эффектов, таких как эффект Галатеи и эффект Голема.

**Ключевые слова:** ожидания; самореализующееся пророчество; эффект Пигмалиона; медсестры; качественное исследование.