



The Degree of Transformational Leadership Practice among Secondary School Principals in Haifa District in the Palestinian Interior and its Relationship to the Level of Job Satisfaction of Teachers

Mohammed Masallha ^{1*}, Jamal Zaid ²

^{1,2} Algaber Institute for Scientific Research, Israel

* Corresponding Author: **Mohammed Masallha**

Article Info

ISSN (online): 2583-5289

Volume: 04

Issue: 03

May-June 2025

Received: 02-03-2025

Accepted: 03-04-2025

Page No: 01-12

Abstract

This study aimed to reveal the degree of practice of transformational leadership dimensions among secondary school principals in Haifa District in the Palestinian interior, and its relationship to the level of job satisfaction among teachers. The study adopted a correlational descriptive research methodology. The study population consisted of all secondary school teachers in Haifa District in the Palestinian interior, numbering (3287) teachers, the study sample consisted of (410) teachers. The results showed that the degree of practice of transformational leadership dimensions among secondary school principals in Haifa District in the Palestinian interior was highly, the first of which was perfect effect dimension (4.07), followed by individual considerations dimension (4.06), followed by intellectual arousal dimension (4.01), and in last place inspirational stimulation (3.92). The results also showed that there were statistically significant differences due to the variable of academic qualification, where the differences came in favor of the "bachelor's" category, and there were statistically significant differences due to the variable of years of experience, where the differences came in favor of the category "less than 5 years". The results also showed that the level of Job satisfaction among teachers came at a high level in all its dimensions, the first of which was the nature of work dimension (3.86), and then security and job stability dimension (3.80), followed by the principal's relationship with teachers dimension (3.73) and in last place physical aspects dimension (3.68), and the results showed that there were no statistically significant differences due to the gender variable, and there were statistically significant differences for the experience variable, and the differences came in favor of the category of "10 years and more", and the presence of statistically significant differences for the variable of academic qualification and the differences came in favor of the category of "graduate", and the results showed a positive correlation between transformational leadership among principal and job satisfaction among teachers.

DOI: <https://doi.org/10.54660/IJMCR.2025.4.3.01-12>

Keywords: Haifa District, High schools, Job Satisfaction, Transformational Leadership.

Introduction

The school administration is an essential pillar of the educational process, and the success of the educational process depends on it, being the direct administration supervising education in general, and implementing the educational policies planned by the higher educational administrations in particular, and as a result of the multiplicity of the tasks of the school principal and his competencies, and the large number of duties and tasks entrusted to him, so it is necessary specialists and officials concerned with the school administration should prepare and train those in charge of it, so that they can carry out their duties to the fullest (Saleh and Mubaideen, 2022) ^[20].

Transformational leadership is one of the leadership styles that focus on creating enthusiasm and motivation among the various employees of the educational institution, with the aim of change and development, due to its belief in the possibility of planning matters related to their professional growth, as it strives for cooperative work by spreading its culture and working with it to achieve the planned educational goals, in addition to the insightful vision to foresee the future. This leadership also aims to influence thought and bring about change in trends, it also increases skills and positive behavior, through inspirational influence (Al-Zahrani, 2020) ^[25].

As for schools and educational institutions, the importance of transformational leadership lies in its focus on teachers and their interests, in addition to bringing out all their cultural and ethical awareness to work and seeking to confirm the positive relationships between transformational leaders and teachers, with the aim of motivating them to make a greater effort and push them to work cooperatively among themselves, and between their transformational leaders, the behavior of the transformational leader greatly affects the behavior of employees, their morale and organizational performance, it is a perception of leadership as a common organizational entity instead of a task that depends on one person, this positively affects their commitment to change and building the future vision, as it seeks to create a creative climate to motivate teachers (Lemon, 2022) ^[13].

Ahmad (2018) ^[6], believes that transformational leadership is a multidimensional concept, as it includes six basic dimensions, such as vision and goals, and the extent to which the leader works to achieve a consensus in performance between subordinates to determine the priorities of the organization taking into account general goals, and culture, as it encourages trust between subordinates, interacts with them with respect, and shows a willingness to change its practices when necessary, and works to establish an institutional structure that enhances the participatory decision-making process, supports delegation and distribution leadership and encourages the independence of subordinates in making decisions, as well as intellectual stimulation. Therefore, it can be said that the leader of the institution must have qualities that make him lead his educational institution from good to better, because those who are characterized by the qualities of a leader must surpass his group in terms of intelligence, scientific ability and independence in assuming responsibility within the educational institution.

Job satisfaction is one of the topics that have received a great deal of attention in the educational literature, as individuals spend a large part of their lives at work, through which they search for satisfaction, and the consequent benefits that accrue to institutions and workers with benefit, comfort, psychological calm and tranquility. Naz (2017) ^[15] argues that job satisfaction is an attitude in which an individual expresses feeling about work in general, or even about specific aspects of each job. The feeling of individuals working in the organization towards the job, other work-related aspects contribute significantly to their high degree of job satisfaction, which in turn effectively affects the rate of absence, commitment, and behavior of the individual towards their work in the organization.

Nigama *et al.*, (2018) ^[16] also stressed that job satisfaction is one of the main reasons for an employee's commitment to his work within the organization, and determines his decision to stay or leave, in addition to other reasons, such as the

individual's emotional attachment to the organization, the benefits he obtains from the organization, the range of salaries and bonuses, and others.

The term job satisfaction towards learning procedures refers to the psychological sense of contentment, satisfaction and happiness among teachers in schools, to reach the stage of confidence in procedures, loyalty and belonging to work, satisfaction with work is a prerequisite for the success of the strategies that are planned, and an important indicator to measure the level of progress that is achieved on the ground, and the educational leader must have principals, values and solid ideals, and integrity in the rules of work, and he must to be a watch over himself, keen to achieve integration in his behavior, in order to preserve the prestige of the educational system, and requires the educational leader to be a good example for teachers, pupils and society. (Obeid, 2020) ^[17]. based on the above, the practice of transformational leadership makes the leader a high degree of maturity and insight, and makes him predict success, as he must seek to satisfy teachers, pupil and parents, and satisfy their desires, hence this research, to find out the degree of practice of secondary school principals of transformational leadership and its relationship to job satisfaction of teachers from their point of view.

The first axis: the general framework of the study

Study problem

Many previous studies have confirmed such as: Adam *et al.*, (2021) Al-Adham, (2021), Ahmad, (2018) ^[6], Arokiasamy. *et.*, al, (2016) ^[7], Nigma *et.*, al. (2016), Özcan (2022) ^[18] and Naz, (2017) ^[15] on the importance of transformational leadership and job satisfaction among teachers in schools and on the need to pay attention to the practice of leadership by secondary school principals because of its impact on teachers' satisfaction and achievement in their work, and their loyalty and commitment to the institution in which they work. In view of the lack of studies that dealt with the practice of transformational leadership and its relationship to job satisfaction among teachers in secondary schools Palestine interior, this study came to shed light on these two variables, as well as to shed light on the problem of the study, which is to identify the degree of practice of secondary school principals in Haifa District in the Palestinian interior of transformational leadership and its relationship to job satisfaction among teachers.

Study Questions

- What is the degree to which the principals of secondary schools in Haifa District in the Palestinian interior practice transformational leadership from the teachers' point of view?
- Are there statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the average response of the study sample of teachers on the degree of transformational leadership practice among secondary school principals in Haifa District in the Palestinian interior due to the different variables of gender, experience and educational qualification?
- What is the level of job satisfaction among secondary school teachers in Haifa District in the Palestinian interior?
- Are there statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the average response of the study sample members in the level of job

satisfaction among secondary school teachers in Haifa District due to the variables of gender, experience and educational qualification?

- Is there a statistically significant correlation at the significance level ($\alpha \leq 0.05$) between the transformational leadership practice of secondary school principals and the level of satisfaction of secondary school teachers in Haifa district?

Objectives of the study

- A statement of the degree to which the principals of secondary schools in Haifa District in the Palestinian interior practice transformational leadership.
- Identifying the level of job satisfaction among secondary school teachers in Haifa District.
- Reveal the type and degree of relationship between transformational leadership among secondary school principals and job satisfaction among teachers in Haifa District.

The importance of the study

This study derives its importance from the importance of its subject, which deals with important variables in the administrative field, transformational leadership is one of the modern trends in leadership, as job satisfaction among teachers is one of the important topics in the field of organizational behavior, which would help to know the behavior of individuals in educational institutions. more specifically, it is hoped that the results of this study will:

- Contributes to revealing the relationship between the transformational leadership of the school principal and the job satisfaction of secondary school teachers in Haifa District in the Palestinian interior.
- This study may contribute to the educational field by providing an encouraging environment for transformational leadership in educational institutions.
- The results of this study can help enhance job satisfaction among teachers, which positively affects the achievement of organizational commitment and contribute to achieving the objectives of the educational institution, improving teachers' performance, and increasing their loyalty to the educational institution.

Method and procedure

The methodology and procedures of the study are a major axis, through which the applied side of the study is completed, and through that the data required to conduct statistical analysis were obtained to reach the results that were interpreted in the light of the literature of studies related to the subject of the study.

Study Methodology

The study adopted the correlational descriptive approach to answer the questions of the study, due to its appropriateness and the nature of this study and its objectives.

Population and sample of the study

The study population consisted of all secondary school teachers in Haifa District in the Palestinian interior for the academic year 2024/2023, numbering (3287), and a random sample of (410) teachers was selected from the study population, and the following table shows that:

Table 1: Distribution of study sample

Variables	Categories	Repetition	Percentage
Gender	Male	213	52
	Female	197	48
Experience	Less than 5 years	54	13.1
	From 5-10 years	107	26
	10 years and more	249	60.9
Qualification	Bachelor	235	57.3
	Master and above	165	42.7
Total		410	410

Study tools

The study questionnaire was developed to collect data by referring to the theoretical literature and previous studies related to the study problem, such as the Abo ayada study (2022) [3] and Al-Addam study (2021) [5], and Saleh and Al-mubaydeen study (2022) [20], and Al-Rafia study (2021), and Abdel Razek study (2020), and Al-Mutairi's study (2020) [14]. And conducting an exploratory study to find out the most important areas that must be included in the questionnaire. the questionnaire included items that measure the degree of practice of transformational leadership dimensions by the principals of secondary schools in Haifa District in the Palestinian interior, consisting of (44) items distributed on four dimensions:

First dimension: the ideal effect (9) items.

Second dimension: inspirational stimulation (7) items.

Third dimension: individual considerations (8) items.

Fourth dimension: intellectual arousal (7) items.

To facilitate the interpretation of the results, the responses in each axis were distributed according to the five-point Leckerth scale as follows: Very high = 5, High = 4, Medium = 3, Low = 2, Very low = 1

The closed questionnaire has been adopted in the preparation of questionnaires, which determines the possible responses to each question, and the answers have been classified into five categories of equal range through the following equation:

To determine the criterion for judging the score, namely: Class length = (highest value in scale – lowest value) divided by the number of options in the scale (5).

Table 2: Class length = $(5-1) \div 5 = 0.8$

Variables	Categories	Repetition	Percentage
Gender	Male	213	52
	Female	197	48
Experience	Less than 5 years	54	13.1
	From 5-10 years	107	26
	10 years and more	249	60.9
Qualification	Bachelor	235	57.3
	Master and above	165	42.7
Total		410	410

The second axis: theoretical framework

The concept of transformational leadership

Transformational leadership is the ability of the leader to clearly communicate the organization's message and future vision to followers, by practicing high ethical behaviors to build trust and respect between both parties. The transformational leader is based on providing unusual incentives to his subordinates, so that he seeks to raise their morale, activate the rule of values, provoke their thinking towards creativity and innovation, and always seek creative

solutions to the problems they face in their work, and motivate them towards the value and prestige of their work, and thus the goals of the organization become complementary to their goals. (Al-Futuh, 2022) ^[9].

As for the educational aspect, this leadership was defined as the ability of the school principal to address the teachers working with him in a language based on their self-esteem to move them as a team, cooperating to achieve a future vision by which they lead the school, and work to modify wrong behaviors, by instilling transformative convictions, with the aim of making fundamental changes for them so that a positive atmosphere prevails (Al-Addam, 2021) ^[5]. Also, this leadership focuses on change, inspires subordinates to commit to a shared vision and goals, and develops their leadership capacity, through training, mentoring and support. (Arokiasamy. et., al, 2016) ^[7].

Gachunga & Ndege (2014) ^[10] noted that transformational leadership helps to re-facilitate the vision and mission of individuals, renews their commitment to it, and seeks to restructure systems and build general rules that contribute to the achievement of set goals.

The importance of transformational leadership: it is to bring about a fundamental change in the followers, and inspire them to work in a harmonious manner, in order to build organizations on a value base, and it also contributes to setting performance standards in the organization, making it able to respond to internal and external variables, and its importance also lies in: raising levels of organizational performance, raising the level of confidence of employees in the organization so that they feel the spirit of belonging and motivate them to achieve excellence in performance as well as respond to changes in the organization's climate and fluctuations in the needs and desires of employees with the organization. (Sindi, 2019).

Dimensions of transformational leadership: there are many dimensions of transformational leadership, and the following is a brief presentation of the most prominent of them, which are as follows (Saleh, and Al-Mubaidain, 2022) ^[20].

Ideal effect: it is represented by the behavior of the leader who enjoys the admiration of his followers, as it requires him to participate in the activities and events of the various organization, in addition to putting the needs of his followers over his personal needs, and the transformational leader practices behaviors and ethics that make him a model to follow.

Inspirational motivation: it is the actions and behaviors of the leader that arouse in subordinates the love of challenge, and these behaviors work to clarify expectations for subordinates, as well as describe the style of commitment to organizational goals and stimulate team spirit, through ideal enthusiasm, in addition, the actions of the leader push employees to participate in the perception of the future conditions of the educational institution and common goals and visions.

Intellectual arousal: it is the principal's ability to provoke the efforts of subordinates thinking and analytical to form creative efforts, and encourage his subordinates to address the

solution of problems in new ways, and teach them to look at difficulties as problems that need to be solved, which encourages creativity, away from tradition and routine.

Individual considerations: represented in the leader's approach and ways of dealing that are characterized by kindness, in light of the adoption of strategies of motivation, appreciation and respect, where he gives special attention to the needs and achievements of subordinates, taking into account the individual differences between them, and the transformational leader meets their personal needs, listens to them and takes into account their future aspirations, and works to train and guide them to achieve further growth and development according to the capabilities available to him.

The effectiveness of transformational leadership in educational institutions: the transformational leader seeks to transfer his subordinates a qualitative, civilized leap, so there are some principal's that help the leader in educational institutions to activate his leadership role, namely (Abu Ayada and Al-Unyzi, 2022) ^[3]:

- Use the right leadership style at the right time.
- Encourage creative initiatives and ideas.
- The transformational leader is characterized by qualities, the most important of which are inspirational and creative personality, mental arousal and human interest in individuals according to his needs and abilities.
- Improving the conditions of education and unifying the efforts of employees in the educational institution to achieve its goals.
- Recognize the need for change, that is, appropriate change according to new strategies and methodology, where views are exchanged, and justifications and reasons for change are provided.
- Encourage team work and cooperation among them.
- Good time management and effective use, and not wasting it with useless competitions.
- Attention to gross and mental energies, ability, communication skills, objectivity and social skill.

Job satisfaction

The concept of job satisfaction: Job satisfaction is the satisfaction that the teacher derives from his job that he does, or the group he works with, or his superiors who supervise him, and it stems from his belief in his job and the role that he can play, as the absence of this satisfaction leads to neglect of his work and failure to perform his duties, which causes a lack of production, and failure to achieve the goals of the educational process (Hussein, Ali and Moussa, 2021) ^[11]. There are those who believe that job satisfaction is the inner feeling of the individual, which is represented in his sense of satisfaction, contentment and happiness, and this feeling stems from satisfying his needs and desires towards his work environment, the individual's satisfaction with what he does, and his acceptance of his work environment, because of the duties and tasks dictated by his job, and his sense of confidence and belonging to his work (Al-Mutairi, 2020) ^[14]. As pointed out (Singh & Sharma, 2017) ^[24] indicates that job satisfaction is the perceived feelings an employee has towards his job. Job satisfaction is influenced by a range of variables, such as: salary and promotion, meeting primary and secondary needs, opportunities for advancement and degree of participation in goal setting.

The Importance of Job Satisfaction: Job satisfaction is of great importance, as it is considered a measure of the effectiveness of performance, and it is one of the most important indicators of health and wellness, the institution in which employees do not feel job satisfaction, has few chances of success, compared to institutions whose employees feel job satisfaction, and employees who are satisfied with their work, are more willing to continue the job and achieve the goals of the organization, and even more active and enthusiastic at work, and job satisfaction is considered an effective means to achieve the goals of the institution and ensure its survival, continuity, and success (Al-Rifai, 2021)^[19]. The importance of job satisfaction as summarized by (Al-Jamaan and Bin Salman 2021)^[12] is represented in the following points:

- Reducing the accumulated pressures on the individual as a result of the increase in the complexities of life.
- Increase self-confidence and ambition of the individual working in the organization.
- The importance of job satisfaction appears in the close relationship between production at work, the higher the degree of job satisfaction, the more production leads.
- A high degree of job satisfaction leads to a high degree of ambition among employees in the organization.

Dimensions of job satisfaction: the dimensions of job satisfaction are divided into several dimensions, depending on certain considerations, including what Shurbagi & Alferjani (2014)^[23] mentioned:

Nature of work: work is a source of satisfaction or pressure at work, due to the characteristics of the job work that distinguish it from other work, whether it is related to the category from which this work is classified, or the status that the work offers to its occupants (Al-Shehri, 2020)^[21].

Material aspects: it is represented as a means that leads to satisfying the various needs of the worker, as it plays a role in his feeling satisfied with his work if his wage is appropriate and fair, and the material aspects and salaries paid to workers for their efforts occupy great importance as an economic force, enabling workers to achieve their various desires and needs in the organization, in addition to being an indicator of the position and social status of the individual in society (Abdullah, 2021)^[2].

The principals relationship with teachers: the extent to which the principal senses the needs and feelings of his subordinates, and the level of his impact on the satisfaction of individuals with their work, depends on his administrative behavior and the extent of his control over the means of material and moral satisfaction that subordinates rely on towards his management, and also depends on the personal characteristics of the subordinates themselves, the means of gratification that are under the control of the principal, increase the impact of his behavior on his subordinates. (Özcan, 2022)^[18]

Job Security and Stability: one of the most important factors to enhance productivity among workers in their professional circles is their sense of security and job stability, two factors that greatly affect not only the individual, but the entire organization, which is necessarily affected by the psychological aspect of its employees, so successful institutions and systems are keen to create an atmosphere that enhances the sense of security among their employees, and seeks always to install the pillars of job stability, which in turn represents an essential success for any professional environment aimed at sustainability and growth. Job security and stability can be defined as "an ideal professional state that creates a positive feeling affecting the employee's psychology in his work, enhances his sense of belonging and institutional loyalty, and creates confidence in sustainability while preserving his rights and securing his future, which pushes him to aspire to development and progress, which reflects positively on institutional work, in order to achieve remarkable progress and stable performance." (Abdul Razzaq, 2020)^[11].

Factors that help school administration achieve job satisfaction:

School administration is the backbone of the educational process, which has the greatest impact on the development and improvement of the educational process in educational institutions alike, by providing conditions and material and moral capabilities, and improving job satisfaction for all employees, especially teachers and administrators, who are considered a key pillar for the development of the teaching and learning process. one of the important things in administrative work is the development of sound human relations, the design of work and making it social, that is, relying on teamwork, and avoiding as much as possible from designing work on an isolated individual basis, which leads to a rise in the morale of workers, as it provides them with opportunities for social interaction between them. (Al-Balawi, 2020)^[8]. Teachers also derive their job satisfaction from the job they perform, or the group they work with and the educational administration that supervises them, assuming teachers about the measures taken in their schools, stemming from their confidence and conviction in those procedures, or the role they can play in the school (Abu Sara, Dweikat, and Abu Sara, 2021)^[4].

Third theme: study results and discussion

First: Discuss the results related to the first research question, which states: "To what degree do secondary school principals in Haifa District in the Palestinian interior practice the dimensions of transformational leadership from the teachers' point of view?"

The arithmetic averages and standard deviations of the responses of the study sample members were used to determine the degree to which secondary school principals in Haifa District in the Palestinian interior practice the dimensions of transformational leadership, and Table (3) illustrates this.

Table 3: Arithmetic Averages and Standard Deviations of Study Sample Estimates of Transformational Leadership Dimensions.

No.	Item	Arithmetic Average	Standard Deviation	Rank	Degree
1	Perfect Effect	4.07	0.89	1	High
2	Inspirational stimulation	3.92	0.92	4	High
3	Individual considerations	4.06	0.94	2	High
4	Intellectual arousal	4.01	0.88	3	High
	Total	4.01	0.90		High

Table (3) shows that the degree of practice of transformational leadership dimensions came with high degree, first perfect effect dimension (4.07), then individual considerations dimension (4.06), followed by intellectual arousal dimension (4.01) and in last place inspirational stimulation dimension (3.92). The arithmetic averages ranged between (3.92-4.07). The researcher believes that the dimension of the perfect impact of the dimensions of transformational leadership being a clear and desirable model, constitutes a clear picture and strategy of the roles required to be played by teachers. The inspirational stimulation came in last place, however, it calls for keeping

pace with change and developing strategic plans, which look to the future in an optimistic spirit, as evidenced by these results, that principals seek to create a climate of challenge and competition, and to encourage their teachers to their positive performance and perseverance to excel, and to work in a team spirit and thus make them feel appreciated and motivated to give more, so they have increased self-confidence, productivity, positivity and influence on others and inspire them to take initiatives in the implementation of tasks and follow an analytical method to plan strategies and make appropriate decisions for the benefit of the school and its pupils.

Perfect effect dimension

Table 4: Arithmetic Averages and Standard Deviations of Study Sample Estimates of the Ideal Effect Dimension of Transformational Leadership Dimensions

No.	Item	Arithmetic Average	Standard Deviation	Rank	Degree
2	The principal has professional tact	4.24	0.86	1	Very high
3	The principal is trusted by teachers	4.21	0.89	2	High
6	The principal motivates school staff to experiment with new business strategies	4.17	0.91	3	High
4	The principal is honest with his teachers	4.10	0.93	4	High
5	The principal is appreciated and respected by all school staff	4.07	0.83	5	High
8	The principal cares about the ethical aspects when completing tasks	4.00	0.85	6	High
1	The principal is personal strength	3.98	0.80	7	High
9	The principal adheres to the optimal values in his behavior with his teachers	3.92	0.89	8	High
7	The principal provides for the needs of teachers before providing for his personal needs	3.83	1.08	9	High
	Total	4.06	0.89		High

Table (4) shows that the arithmetic averages of the perfect effect dimension ranged between (3.83-4.24), with a high degree on all items, except item (2), which came with an arithmetic average of (4.24) and a very high degree, while the field as a whole obtained an arithmetic average of (4.06) with a high degree. In first place came item (2), which states: "The principal has professional tact" with an arithmetic average of (4.24), with a very high degree, and in last place came item (7), which states "The principal provides for the needs of teachers before providing his personal needs" with an arithmetic average (3.83) and a high degree. The researcher

attributes this to the fact that the managers in Haifa district have strength of character, and professionalism, which is characterized by justice and coincidence, which affects the relationship between them and their teachers, which is characterized by trust and mutual respect, where principals work relentlessly to set common educational goals for all teachers, and they also encourage work teams, and urge them to work together, which positively affects the increase in productivity and outstanding performance, which in turn increases their sense of job satisfaction in their studies.

Inspirational stimulation dimension

Table 5: Arithmetic Averages and Standard Deviations of Study Sample Estimates of the Inspirational Motivation Dimension of Transformational Leadership Dimensions

No.	Item	Arithmetic Average	Standard Deviation	Rank	Degree
15	The principal seeks to develop the school's teachers	4.25	0.85	1	Very high
14	The principal trusts teachers' abilities to achieve	4.23	0.87	2	Very high
12	The principal focuses on getting things done with teamwork	4.05	0.89	3	High
13	The principal has the ability to provide advice and persuasion	3.83	0.81	4	High
10	The principal works to arouse a spirit of challenge among teachers	3.75	0.90	5	High
16	The principal engages teachers in formulating the school's vision	3.72	1.03	6	High
11	The principal has the ability to explain his expectations to teachers	3.66	1.07	7	High
	Total	3.92	0.92		High

Table (5) shows that the arithmetic averages in the inspirational stimulation motivation dimension ranged between (3.66-4.25), with a high degree on all items, except items (15) and (14) which they came with a very high degree, while the field as a whole obtained an arithmetic average of (3.92), with a high degree. In first place came item (15), which states: "The principal seeks to develop the school's teachers" with an arithmetic average of (4.25), with a very high degree, and in last place came item (11), which states: "The principal has the ability to explain his expectations to teachers" with an arithmetic average (3.66) and with a high degree. The researcher attributes this to the pursuit of educational leaders to keep pace with change and develop strategic plans, which make them look to the future in an optimistic spirit, as they plan and organize their strategies to deal with the future professionally, and that managers seek

by virtue of their professional experience to create a climate of challenge and sound competition during work, where they encourage their teachers to their positive performance and high self-confidence, They also urge them to comply with the spirit of competition and perseverance for excellence, and to work in a team spirit, as a team with deep and interconnected relationships to achieve the best results, and this comes by focusing on the strengths and advantages of teachers, and thus makes them feel appreciated and motivated to give more, so self-confidence increases, productivity and positivity increase, and influence others and inspire them to take initiatives, in carrying out tasks and adopting an analytical method to plan strategies and make appropriate decisions and to share with them the appropriate information and reports consistently, clearly and transparently.

Individual considerations dimension

Table 6: Arithmetic Averages and Standard Deviations of Study Sample Estimates of Individual Considerations Dimension of Transformational Leadership Dimensions

No.	Item	Arithmetic Average	Standard Deviation	Rank	Degree
21	The principal appreciates the efforts of the teachers	4.29	0.88	1	Very high
20	The principal relies on direct and open communication with teachers	4.23	0.98	2	Very high
22	The principal acknowledges the efforts of teachers	4.19	0.93	3	High
19	The manager adopts a strategy of reinforcement and positive appreciation	4.16	1.01	4	High
17	The principal cares about teachers' feelings in terms of guidance and encouragement	3.99	0.96	5	High
18	The principal works to meet the needs of teachers	3.95	1.00	6	High
24	The principal takes into account the individual differences between teachers	3.91	0.88	7	High
23	The principal works on training and developing the capabilities of teachers	3.90	0.87	8	High
Total		4.06	0.94		High

Table (6) shows that the arithmetic averages in the dimension of individual ranged between (3.90-4.29) and with a high degree on all items, except items (20) and (21), which came with a very high degree, while the field as a whole obtained an arithmetic average (4.06), with a high degree. In first place came (21), which states: "The principal appreciates the efforts of teachers" with an arithmetic average (4.29), with a very high degree, and in last place came item (23), which states: "The principal works on training and developing the capabilities of teachers" with an arithmetic average (3.90) and a high degree. The researcher attributes this to the fact that the principals seek to develop their schools, and work hard to change for the better, through their interest in their

teachers and their professional and personal level alike, they seek to train their teachers continuously, develop their professional abilities, and provide them with new skills, through holding training courses, conferences and workshops, and the principals care about the feelings of their teachers, and work to encourage them, guide them and provide them with advice, through open communication channels, and the principals work to assign school tasks. principals show great interest in the teachers' personal and professional needs, in addition to building strategies of appreciation and positive reinforcement, which make their teachers feel proud of their work, within the framework of a wise leadership that respects and appreciates them.

Intellectual arousal dimension

Table 7: Arithmetic Averages and Standard Deviations of Study Sample Estimates of the Intellectual Arousal Dimension of the Transformational Leadership

No.	Item	Arithmetic Average	Standard Deviation	Rank	Degree
28	The principal develops the school structure to suit the requirements of change and creativity	4.16	0.94	1	High
26	The principal helps teachers show their full potential	4.09	0.89	2	High
29	The principal helps teachers to come up with new ideas	4.03	0.88	3	High
27	The principal works to establish a culture of change and development in the school	4.00	0.83	4	High
30	The manager develops optimism for the future	3.98	0.81	5	High
25	The principal motivates teachers to self-evaluate their performance	3.93	0.90	6	High
31	The principal excites in teachers creativity and innovation	3.91	0.89	7	High
Total		4.01	0.88		High

Table (7) shows that the arithmetic averages of the intellectual arousal dimension ranged between (4.16-3.91), with a high degree on all items, while the field as a whole obtained an arithmetic average of (4.01), with a high degree. In first place came item (28), which states: "The principal develops the school structure to suit the requirements of change and creativity" with an arithmetic average of (4.16), with a high degree, and in last place came item (31), which states: "The principal excites in teacher's creativity and innovation" with an arithmetic average (3.91) and a high degree. The researcher attributed this to the keenness of school principals to reach the best and excellence, by providing qualitative and modern ideas to solve problems, which occur during work, and school principals work to assign their teachers qualitative work that motivates them to innovate and create, and encourage them to install their strengths, as well as reduce the threats facing the school, by learning from past mistakes, as an experience that can be benefited from, and not to fall into it in the future, and principals work relentlessly to support intellectual arousal in solving problems in appropriate ways and with the participation of teachers, where principals create the appropriate climate for their teachers to express their opinions and submit distinctive ideas and proposals, which enhances their sense of responsibility and self-confidence, which enables them to exercise their tasks efficiently and professionally.

Discussing the results related to the second research question, which stated: Are there statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the average response of the study sample of teachers on the degree of transformational leadership practice among secondary school principals in Haifa District in the Palestinian interior due to the different variables of gender, experience and qualification?

The results related to this question showed that there were statistically significant differences due to the variable (academic qualification), where the differences were in favor of the "graduate" category, and there were statistically significant differences due to the variable (years of experience), where the differences were in favor of the owners of the category "less than 5 years", while there were no statistically significant differences for the variable (gender) in the practice of secondary school principals for the dimensions of transformational leadership, in all its dimensions and in the total degree.

Regarding the qualification variable

The results showed that there were statistically significant differences in the degree of transformational leadership practice of secondary school principals in Haifa District in the Palestinian interior in all dimensions of transformational leadership and the total degree due to the impact of the academic qualification, where the differences were in favor of the "graduate" category. This result can be explained by the fact that secondary school principals with graduate studies (master's and doctorate) are more familiar with the importance of transformational leadership dimensions and

their impact on teachers and their good performance in the educational process, by virtue of the information and knowledge they gleaned during their graduate studies, which made their scientific horizon more comprehensive, which instilled in them abilities that qualify them to deal with work data according to an organized scientific methodology, and therefore the view of the members of the study sample differed on the practice of the dimensions of transformational leadership prevailing according to the scientific qualification.

Regarding the variable of years of experience

The results showed that there were statistically significant differences in the degree of transformational leadership practice of secondary school principals in Haifa District in the Palestinian interior in all dimensions of transformational leadership and the total degree attributed to the effect of "years of experience", where the differences were in favor of the category "less than 5 years". Perhaps the reason is that long-serving teachers, by virtue of their service and their experience of many ideas, personalities and trends, have formed an image of a pattern transformational leadership, they saw in their principals in secondary schools, while teachers with short experience "less than 5 years" may still be dominated by the educational and ethical theories they studied during their training in educational colleges, so they had a different image of their principals than those with high experience.

Regarding the gender variable

The results showed that there were no statistically significant differences in the degree of transformational leadership practice among secondary school principals in Haifa District in Palestine interior in all dimensions of transformational leadership and the total degree of gender impact. This can be explained by the fact that teachers, regardless of their gender, live in a unified organizational climate, which makes them equal in opinion in attention to the dimensions of transformational leadership and job satisfaction, and they are similar in working conditions and subject to the same instructions and legislation, and live within the framework of the same culture, which makes them perceive management practices in a different way, and this may also be due to the nature of school principals' practice of the dimensions of transformational leadership all of them, and allowing them sufficient freedom and independence in the performance of their activities, and in innovating new ways in the educational process, and determining the appropriate methods to perform and accomplish their work without reference to the administration, which in turn encourages their self-censorship and is based on enhancing trust between teachers and encourages them to creativity and innovation, and contribute with new thinking to building a knowledge society, and in develop the ability to use information technology in teaching and learning.

Discuss the results of the third question, which states: "What is the level of job satisfaction of secondary school teachers in the Haifa district?"

Table 8: Arithmetic Averages and Standard Deviations of Study Sample Estimates of Job Satisfaction Dimensions

No.	Item	Arithmetic Average	Standard Deviation	Rank	Degree
1	Principal's relationship with teachers	3.73	0.84	3	High
2	Nature of work	3.86	0.83	1	High
3	Physical aspects	3.68	0.85	4	High
4	Security and job stability	3.80	0.89	2	High
Total		3.77	0.85		High

Table (8) shows that the degree of practice of the dimensions of job satisfaction came with a high degree, the first of which was the nature of work dimension with an arithmetic average (3.86), then job security and stability dimension with an arithmetic average (3.80), followed by the principal's relationship with teacher's dimension with an arithmetic average (3.73), and in last place the physical aspects dimension (3.68). The researcher believes that the nature of work, which issues the dimensions of job satisfaction, has a distinctive value that requires workers to use the time as much as possible, in developing their abilities and the quality of their professional performance. Through the distinctive human relations that prevail in the school atmosphere, which

in turn helps to cooperate among them to solve school problems that may hinder the progress and development of the school's work. The material aspects that concluded the dimensions of job satisfaction indicate that the demand of learners for the teaching profession, but it is their belief in its social and educational importance, it is an educational message, aimed at raising future generations, and to progress and advancement, and that the salary with its great importance in a decent living, but it was not in the priorities of teachers, because there are other educational matters of great importance, pushing the teacher to comply with them and to achieve them, for the sake of the elevation of society, and the development of the learning and teaching process.

Nature of work dimension

Table 9: Arithmetic Averages and Standard Deviations of the Estimates of the Study Sample Members for the Nature of Work Dimension

No.	Item	Arithmetic Average	Standard Deviation	Rank	Degree
1	Keep continuing my work during the hours to prevent wasting time	3.99	0.76	1	High
7	School teachers collaborate to solve work problems	3.95	0.81	2	High
2	Feel the fun of teaching	3.90	0.78	3	High
4	The tasks assigned to me by the manager are clear and appropriate	3.88	0.79	4	High
6	The spirit of love and appreciation prevails among the teachers of the school	3.84	0.82	5	High
5	School equipment is appropriate and appropriate to the nature of work	3.75	0.87	6	High
3	The number of pupils in classes is appropriate	3.69	0.97	7	High
Total		3.86	0.83		High

Table (9) shows that the arithmetic averages in the dimension of the nature of work ranged between (3.69-3.99), with a high degree on all items, while the field as a whole obtained an arithmetic average (3.86) with a high degree. In first place came item (1), which states: "keep continuing my work during hours to prevent wasting time", with an arithmetic average of (3.99), with a high degree, and came in last place item (3), which states "The number of pupils in classes is appropriate." with an arithmetic average (3.69) With a high

degree. This may be due to teachers' awareness of the value of time and its use as much as possible, to finish the course on time, as well as their desire to develop their abilities and the quality of their professional performance. This may be explained by the existence of good human relations in the school between the staff of teachers and the school administration, and between the teachers themselves, which helps to cooperate among them to solve school problems that may hinder the progress and development of school work.

Physical aspects dimension

Table 10: Arithmetic Averages and Standard Deviations of the Estimates of the Study Sample Members for the Physical Aspects of the Job Satisfaction Dimensions

No.	Item	Arithmetic Average	Standard Deviation	Rank	Degree
10	I prefer this profession over others even if its salary is higher	3.84	0.87	1	High
12	The salary achieves a respectable standard of living in the society	3.79	0.89	2	High
13	My profession provides me with enough security.	3.77	0.78	3	High
9	My salary and income from my profession is commensurate with what I do	3.70	0.79	4	High
11	I encourage others to choose a teaching profession	3.65	0.85	5	High
14	Always get enough incentive	3.58	0.91	6	High
15	The bonus I get is suitable for me	3.55	0.86	7	High
8	The profession provides me with opportunities for promotion and advancement in my work	3.52	0.88	8	
Total		3.68	0.85		High

Table (10) shows that the arithmetic averages in the dimension of the physical aspects ranged between (3.52-3.84), with a high degree on all items, while the field as a whole obtained an arithmetic average (3.68) with a high degree. In first place came item (10), which states: "I prefer this profession over others even if its salary is higher" with an arithmetic average of (3.84), and a high degree, and in last place came item (8), which states: "The profession provides me with opportunities for promotion and progress in my work" with an arithmetic average (3.52) with a high degree. The researcher attributes this result to the demand of learners for the teaching profession, believing in its importance and

social status, as they perform an educational mission, where they are entrusted with the education of future generations, in order to carry the torch of leading their societies towards progress and advancement. This result may be explained by the interest of the Ministry of Education in improving the wages and material incentives provided to teachers, and improving their living conditions, in order to enhance their interest in the profession and focus their professional efforts in it, and not to be preoccupied with other matters that distract their ideas and hinder their tasks from the teaching profession.

Principal's relationship with teacher's dimension

Table 11: Arithmetic Averages and Standard Deviations of the Estimates of the Study Sample Members for the Dimension of the Principal's Relationship

No.	Item	Arithmetic Average	Standard Deviation	Rank	Degree
20	The principal involves his teachers in the events and activities of the school	3.85	0.77	1	High
21	The principal trusts his teachers	3.80	0.84	2	High
23	The principal deals fairly and fairly with his teachers	3.77	0.79	3	High
18	The principal recognizes the efforts of his teachers	3.75	0.82	4	High
19	The principal assists teachers in controlling student behavior	3.72	0.95	5	High
22	The principal understands the problems that teachers face in their work	3.70	0.85	6	High
17	The manager works to provide all the requirements required by the work	3.63	0.80	7	High
16	The director submits the views of his teachers to the competent authorities	3.60	0.82	8	
Total		3.68	0.85		High

Table (11) shows that the arithmetic averages in the dimension of the principal's relationship with teachers, ranged between (3.60-3.85), with a high degree on all items, while the field as a whole obtained an arithmetic average (3.73) with a high degree. In first place came item (20), which states: "The principal involves his teachers in the events and activities of the school" with an arithmetic average of (3.85), with a high degree, and in last place came item (16), which states "The principal submits the views of his teachers to the competent authorities" with an arithmetic average (3.60) with

a high degree. The researcher attributes this result to the awareness of principals, the importance of involving teachers in school activities and events, which enhances their status and increases their self-confidence and makes them feel that they are an important element in achieving school goals, and improving the relationship between the administrative staff and teachers, and perhaps this is explained by the awareness of principals, that simplifying administrative procedures, would create the best conditions for educational work for teachers.

Estimating job security and stability dimension

Table 12: Arithmetic Averages and Standard Deviations of the Estimates of the Study Sample Members for the Dimension of Security and Job Stability from the Dimensions of Job Satisfaction

No.	Item	Arithmetic Average	Standard Deviation	Rank	Degree
24	The principal gives his teachers autonomy and self-censorship at work	3.93	0.86	1	High
25	Impartiality of the principal in his treatment of his teachers	3.87	0.83	2	High
27	The principal and his teachers feel a sense of psychological stability	3.81	0.91	3	High
28	The manager applies the laws and regulations governing the work	3.78	0.97	4	High
29	The principal applies the principle of justice and equality in the treatment of his teachers	3.71	0.88	5	High
26	The principal is interested in teachers' work-related suggestions	3.69	0.89	6	High
Total		3.80	0.89		High

Table (12) shows that the arithmetic averages in the dimension of stability and job, ranged between (3.69-3.93), with a high degree on all items, while the field as a whole obtained an arithmetic average (3.80) with a high degree. In first place came (24), which states: "The principal gives his teachers independence and self-control at work" with an arithmetic average of (3.93), with a high degree, and in last place came item (26), which states: "The principal is interested in teachers' proposals related to work." with an

arithmetic mean (3.69) with a high degree. The researcher attributes this result to the high degree of professionalism and objectivity of the school principal, which is represented in his fair treatment with all teachers without exception, as these are given independence in their educational work, and the principal shows great interest in their proposals, which generates self-confidence and gives them the ability to adopt self-censorship that benefits the school and its students.

Discuss the results of the fourth question, which states:

"Are there statistically significant differences at the significance level ($\alpha \leq 0.05$) between the average response of the study sample members in the level of job satisfaction among secondary school teachers in Haifa District due to the variables of gender, experience and educational qualification?"

For the gender variable: to answer this question, arithmetic averages, standard deviations and a "t" test were extracted for independent samples in the dimensions of job satisfaction among secondary school teachers in Haifa district. The results of this question showed that there were no statistically significant differences due to the effect of the gender variable on all dimensions of job satisfaction and in the total degree. The reason may be that the transformational leader, whether male or female, these are innate and acquired values that are stored within the individual and translate his behavior through everyday situations.

For the experience variable: to answer this question, arithmetic averages, standard deviations and the "f" test were extracted for independent samples in the dimensions of job satisfaction among secondary school teachers in Haifa district. The results of this question showed that there were statistically significant differences due to the effect of the experience variable in all items of the dimensions of job satisfaction and in the total degree, and the differences came in favor of the category "10 years and more". This may be due to the fact that teachers with more experience usually have a high level of job satisfaction, due to their long period of work, their understanding of work requirements and their performance of their tasks as required in accordance with

educational laws and regulations, and thus they develop a state of commitment to the rules of the environment school, which contributes to increasing their level of job satisfaction.

For the qualification variable: to answer this question, arithmetic averages, standard deviations and a "t" test were extracted for independent samples in the dimensions of job satisfaction among secondary school teachers in Haifa district. The results of this question showed that there are statistically significant differences due to the impact of the academic qualification on the dimensions of job satisfaction and total degree. This may be justified by the fact that the teacher who has transformational leadership qualities, which he acquired through daily situations, or was innately, and that arose and developed during the stages of his life, makes him more confident and balanced, and satisfied with the currency, in addition to his scientific qualification, which gives him a higher salary than his colleagues with lower grades, and this raises the status of the school among his colleagues and between The school community, and all these things combined to consolidate and deepen his job satisfaction in the educational institution.

Discuss the results of the fifth question, which states: Is there a statistically significant correlation at the significance level ($\alpha \leq 0.05$) between the transformational leadership style of secondary school principals and the level of job satisfaction of secondary school teachers in Haifa district?

To answer this question, Pearson's correlation coefficients were extracted between the degree of transformational leadership practice of secondary school principals and the level of job satisfaction of teachers in Haifa district, and table (12) shows this.

Table 13: Pearson's Correlation Coefficients between the Transformational Leadership Style of Secondary School Principals and the Level of Job Satisfaction of Teachers in Haifa District

Statistical Metrics		Nature of work	Security and job stability	Principal's relationship with teachers	Physical aspects
Perfect Effect	Correlation coefficient Significance level	**0.758 **0.000	**0.506 **0.000	**0.697 **0.000	**0.653 0.000**
Individual considerations	Correlation coefficient Significance level	**0.831 **0.000	**0.573 **0.000	**0.771 **0.000	**0.725 0.000**
Intellectual arousal	Correlation coefficient Significance level	**0.813 **0.000	**0.541 **0.000	**0.756 **0.000	**0.703 0.000**
Inspirational stimulation		**0.800 **0.000	**0.540 **0.000	**0.742 **0.000	**0.693 0.000**
The Degree to which Haifa District High School Principals Practice Transformational Leadership	Correlation coefficient Significance level	**0.820 **0.000	**0.561 **0.000	**0.758 **0.000	**0.713 0.000**

** Statistically significant at 0.01

Table (13) shows that all values of Pearson's correlation coefficients between the degree of practice of secondary school principals in Haifa District of transformational leadership in all its dimensions (perfect effect, individual considerations, intellectual arousal, Inspirational stimulation) as well as the total degree of transformational leadership and

the level of job satisfaction in all its dimensions (principal's relationship with teachers, nature of work, physical aspects, security and job stability). The total degree of job satisfaction among secondary school teachers in Haifa District is statistically significant at the significance level ($\alpha \leq 0.01$), which shows that there is a positive correlation between the

degree of practice of transformational leadership by secondary school principals and the level of Job satisfaction among secondary school teachers in Haifa district. This can be explained by the fact that the transformational leadership style followed in secondary schools allows teachers to participate in decision-making and cooperation between them, increases the motivation of teachers towards achievement and the desire to achieve goals, and increases their level of loyalty to the educational institution., all of which contribute to increasing their level of job satisfaction.

References

1. Abdul Razzaq M. Self-motivation and its relationship to personal responsibility and job satisfaction in the educational counselor. *Journal of the College of Basic Education*. 2020;10(27):135-168.
2. Abdullah S. Psychometric characteristics of the occupational satisfaction scale among pre-school teachers in the Sultanate of Oman. *Journal of Humanities and Social Sciences Research*. 2021;1(4):213-243.
3. Abu Ayada H, Al-Unyzi I. Transformational Leadership Principles and Challenges: An Analytical Study. *Research Journal*. 2022;7(1):295-308.
4. Abu Sarah A, Dweikat L, Abu Sarah A. Teachers' satisfaction in Palestine with back-to-school procedures during the COVID-19 pandemic. *Journal of Educational Sciences*. 2021;33(3):489-517.
5. Al-Addam M. The degree to which secondary school principals in West Gaza Directorate practice transformational leadership and its relationship to the level of organizational citizenship behavior. *Ibn Khaldun Journal for Studies and Research*. 2021;1(3):993-1024.
6. Ahmad M. Impact of transformational Leadership Styles of Principals on Job Satisfaction of Secondary School Teachers. *Humanities and Social Sciences*. 2018;25(2):41-50.
7. Arokiasamy A, Abdullah K, Shaari A, Ismail A. Transformational Leadership of school principals and organizational health of primary school teachers in Malaysia. *Procedia – Social and Behavioral Sciences*. 2016;229:151-157.
8. Al-Balawi F. Organizational health in secondary schools and its relationship to job satisfaction among female teachers in the city of Tabuk. *Comprehensive Multi-Knowledge Electronic Journal for the Publication of Scientific and Educational Research*. 2020;1:24-45.
9. Al-Futuh A. The reality of transformational leadership practice among middle school principals from the point of view of teachers in Hafr Al-Batin Governorate. *Journal of the Arabian Peninsula Center for Educational and Human Research*. 2022;2(15):52-71.
10. Gachunga H, Ndege F. The effects of transformational results-based management in Kenya's civil service. *Strategic Journal of Business & Change Management*. 2014;1(1):1-17.
11. Hussein B, Ali A, Moussa R. The role of organizational culture in achieving job satisfaction among teachers of the basic education stage in Khartoum North locality. *Journal of Educational Sciences and Humanities*. 2021;1(21):67-84.
12. Al Jamaan S, Bin Salman S, Al-Fagham P. The reality of job satisfaction among primary school teachers in public schools in Riyadh. *Journal of Young Researchers in Educational Sciences*. 2021;9(9):389-437.
13. Lemon M. The degree to which public school principals exercise transformational leadership in the Palace Brigade from the teachers' point of view. *Scientific Journal of the Faculty of Education – Assiut University*. 2022;8(10):72-88.
14. Al-Mutairi R. Strategies of school leaders in Madinah to face the work pressures of teachers and their relationship to their level of job satisfaction. Unpublished Master's Thesis, Saudi Arabia. 2020.
15. Naz S. Factors affecting teachers' job satisfaction. *Market Forces*. 2017;21(2):44-59.
16. Nigama K, *et al.* Job satisfaction among school teachers. *International Journal of Pure and Applied Mathematics*. 2018;119(7):2645-2655.
17. Obeid A. The degree of job satisfaction among public school teachers in Ramallah and Al-Bireh governorate and its relationship to knowledge management. *Islamic University Journal of Educational and Psychological Studies*. 2020;28(4):373-394.
18. Özcan M. Secondary school teachers' job satisfaction: A mixed-method research study. *International Journal of Educational Leadership and Management*. 2022;10(2):195-221.
19. Al-Rifai A. The reality of the practice of secondary school principals in Yanbu Governorate for roaming management and its relationship to job satisfaction from the point of view of teachers. *Journal of Educational Sciences and Humanities*. 2021;8(19):379-423.
20. Saleh D, The Ovaries M. The role of transformational leadership in improving the performance of school administration. *Ibn Khaldun Journal for Studies and Research*. 2022;2(7):572-593.
21. Al-Shehri A. The degree of practice of administrative transparency and its relationship to the job satisfaction of faculty members in Saudi universities. *Pen Magazine*. 2020;17:361-390.
22. Sindy R. Transformational leadership of school leaders and its relationship to empowering the school administrative body in public education schools in the Kingdom of Saudi Arabia. *Journal of Scientific Research in Education*. 2019;20(10):179-224.
23. Shurbagi A, Alferjani S. The relationship between transformational leadership style, job satisfaction, and organizational commitment. *International Business Research*. 2014;7(11):126-138.
24. Singh P, Sharma H. Impact of work motivation on job satisfaction of teachers in professional education. *Research Journal of Science & Management*. 2017;6(5):90-69.
25. Al-Zahrani A. Transformational leadership and its relationship to knowledge-sharing behavior among faculty members in the faculties of science and arts at Qassim University. *Journal of Educational Sciences*. 2020;21(3):342-415.