Journal of Positive School Psychology http://journalppw.com
2022, Vol. 6, No. 6, 8835-8856

Information Culture And Psychological Empowerment Among Postgraduate Students

Nilly Hussien Kamel Elamrousy

Associate Professor of Counseling and Psychotherapy, Department of Psychology, Faculty of Education, King Khalid University, Saudi Arabia, email: nalamrosi@kku.edu.sa

Abstract

The current study aimed to identify the degree of information culture and the level of psychological empowerment among postgraduate students. It also aimed to reveal any correlation between their information culture and psychological empowerment. In addition, it examined the differences between the study sample's responses to the scales of information culture and psychological empowerment according to the variables (age, gender, program). The study sample consisted of (85) male and female students of the master's and doctoral programs at the Faculty of Education, King Khalid University in Saudi Arabia. To achieve the objectives of the study, the descriptive method was used. The researcher designed the scales of information culture and psychological empowerment. The results showed that the current research sample enjoyed information culture to a degree ranging from very high to high. Their level of psychological empowerment ranged from very high to high. Also, there was a positive, statistically significant correlation between their information culture and psychological empowerment. In addition, there were statistically significant differences between the mean scores of the study sample in information culture due to the oldest age, males, and doctorate degrees. Furthermore, the results showed that males were more efficient than females, and Ph.D. students were more efficient than master's students in psychological empowerment. Finally, no statistically significant differences were found between the mean scores of the sample members in psychological empowerment due to age. In light of the results, the study came out with a set of recommendations.

Keywords: information culture, psychological empowerment, postgraduate students.

Introduction

Information culture is one of the topics worthy of attention in an era where the strength of societies is measured by the extent of their members' information culture and information investment. This issue has become an essential part of the life of every individual in society. Therefore, the current research addressed the concept of information culture. The importance of information culture appears in that it enables individuals to solve the problems they face in their daily lives. Also, it makes them able to deal with the rapid changes of quantitative information and the ethical use of information and dealing with information systems with technical skills and critical thinking of the information they reached to make the appropriate decision and then, encourage them to learn for life. The thing that made information culture skills more important because they support independence and uniqueness in information available from different sources. The academic researcher can understand legal and ethical property issues (such as intellectual property rights of authors and scientific plagiarism). Thus, information culture contributes to the spread of education and enables students and researchers to learn on their own, continue self-learning and complete scientific research according to sound scientific foundations.

Al-Dahamsheh (2019) stated that the term psychological empowerment is similar to the concept of motivation that works to raise the individual's self-efficacy. Al-Sherida and

Abdul Latif (2018, p. 299) indicated that psychological empowerment is one of the processes that elevate the individual in contemporary educational systems to high levels of cooperation, team spirit, self-confidence, creativity, independent thinking in work performance and responsibility.

The term, information culture, is one of the modern terms in the information world. Information culture includes a person's knowledge of his information needs and his ability to identify, obtain, evaluate, organize and use information effectively and ethically to study real issues and problems. It is a requirement for active participation in the information society. Also, it is an essential part of human rights for lifelong learning (Al-Zayyat, 2015). In addition, Rabah (2017, p.269) defined information culture as "a set of capabilities that enable individuals to identify their information needs promptly and use them efficiently and effectively." Abu Ras and Kalaldeh (2016) referred to standards adopted by several associations including the American Association for Higher Education. They are that the information-literate student can determine the extent and nature of the information needed and reach the required information efficiently and effectively. He critically evaluates information and its sources and integrates the selected information into his knowledge base and system. He uses information efficiently to accomplish a particular goal and understands the several social and economic issues surrounding the use, availability and use of information ethically and legally. It was also mentioned in Al-Shehri and Al-Zuhri (2015) that some institutions in the United States of America were interested in setting standards under the title "The power of information" and divided them into three domains (information culture, learner independence, and social responsibility).

In light of the above, the researcher believes that information culture means the ability of the academic researcher to determine his need for information to carry out his research work. The researcher determines how to access this information efficiently, criticizes it to choose what suits his research and uses it accurately and in an innovative way giving it a distinction that indicates the importance of that information obtained and employing it efficiently and effectively in ethical behavior. These behaviors take into account intellectual property rights and ethical issues related to data so that he feels the value of this information, his independence in obtaining it, and his bearing the social responsibility that makes him an effective and positively influential researcher in scientific research and education in general. In light of this definition, information culture standards were defined so that they fall under three main dimensions on which the current research is based:

1- The dimension of determining the need for information and how to access it: It means the researcher's ability to determine the information he needs for his research and his knowledge of the various sources of information. Also, it includes his knowledge of the possibility of searching electronic databases, whether on the university's website or via the Internet and accessing full-text information, whether in Arabic or foreign references easily and quickly. In addition, this dimension includes the researcher's ability to develop his information to accomplish his research in an innovative way to bridge the research gap or the information gap distinctly and obtain support and assistance in different ways when needed.

2- The dimension of assessment and criticism of information, selection and use of the appropriate information efficiently: It means the researcher's ability to read the information he obtains critically in a positive way to determine the main points of his research and assess that information in terms of credibility, quality and accuracy and its sources. Also, it includes his ability to choose the information that fits his research topic from the best sources available on the Internet and the appropriate sources from the university's website. In addition, it includes his ability to understand the information he collected, interpret it scientifically, organize it, criticize the research of others positively and determine its usefulness. Further, he can use that information efficiently and effectively, present it in a new innovative way and document its sources in a correct scientific manner until he comes out with new knowledge that adds to the field of scientific research.

3- The dimension of personal responsibility and ethical issues for using information: it means the researcher can use his background information by searching for information and bearing personal responsibility to search for the information he collects. Also, it includes his

knowledge of the methods of information circulation over the Internet to use in addressing his research questions. In addition, he can constantly develop that information, follow the ethical rules in its use and abide by scientific honesty and independence in obtaining it. Furthermore, it includes his responsibility to employ it creatively in his research and document it in a correct manner in light of ethical and legal issues related to information technologies, taking into account the copyright and intellectual property of others to come up with scientific research that contributes positively to community service. In the context of the current study, it is defined as the degree obtained by postgraduate students on the scale of information culture used in the current research (prepared by the researcher).

On the other hand, the topic of psychological empowerment is one of the relatively recent topics in human sciences. Ambad, Nabila and Bahron (2012, p. 323) indicated that psychological empowerment is a necessary positive psychological state for individuals that increases their sense of control and control over their work tasks to perform them skillfully and efficiently. According to Al-Dahamsheh (2019, p. 398), psychological empowerment is the individual's ability to make decisions and control his personal life. Zhu, Sosik, Riggio & Yang (2012, p. 190) showed that psychological empowerment is an activity that leads to improving the inner feeling of the individual and enhancing his independence in the work he performs. It also increases his motivation to carry out the basic tasks by stimulating his perceptions that reflect the positive orientation of the individual to develop his abilities and skills necessary to properly perform the responsibilities entrusted to him and feels that the accomplishment of his tasks affects the achievement of others for their work. In addition, Al-Saadi (2018, p. 430) explained that psychological empowerment means a set of psychological features necessary for individuals to feel their ability to control their work, enhance their self-efficacy and remove the difficulties encountered in their work. In the same context, Al-Majdalawi (2020) indicated that psychological empowerment is a means to increase the ability to make decisions in work situations. It is an internally motivated and exciting component that allows the individual to feel and realize that he can be self-confident and accomplish tasks.

The dimensions of psychological empowerment were numerous in the various previous studies that addressed the topic of psychological empowerment due to the lack of agreement among researchers on specific dimensions of psychological empowerment. The dimensions of some studies can be presented as follows: Khalifa and Shehab (2015) explained that psychological empowerment consists of four dimensions: meaning - self-efficacy - independence - impact.

Al-Sharida and Abdul Latif (2018) found that the dimensions of psychological empowerment were evident in the dimensions: meaning - efficiency - independence - influence. Spreitzer (1995, p.1442) defined psychological empowerment as the motive and psychological aspect that includes four sub-dimensions:

1- Meaning: It refers to the feeling and the connection of the individual to the work he is doing.

2- Efficiency: It means that the individual possesses the capabilities, skills and characteristics that enable him to perform his work in the best possible way.

3- Choice: It means the individual's feeling of independence and freedom while performing his work tasks.

4- Influence: means the individual's ability to control and influence the field in which he works.

By referring to the psychological literature and previous studies, the researcher reached a definition of psychological empowerment and its dimensions concerning the current research as follows:

Psychological empowerment: It is a mental and psychological state that makes an individual feel psychologically satisfied with his purposeful study and research work. It makes him able to face the challenges of these actions and provides him with a sense of self-confidence and awareness of his abilities and potential to achieve his goals. Also, it helps him to manage his time effectively while taking responsibility for his actions to accomplish his academic and research tasks freely, independently and efficiently, with positive control over them because he possesses leadership skills that support his ability to make decisions that benefit the field of scientific research.

The researcher identified the dimensions that she used in building the current research scale.

They are represented in four main dimensions as follows:

1- Dimension of meaning: It means the researcher's sense of the importance of postgraduate studies and the feeling of psychological satisfaction with academic achievement and research work. It also means his ability in the field of scientific research to face the challenges faced by him due to his sense of the meaning and importance of the research work and his reliance on scientific evidence and facts when discussing others and supporting his research work.

2- Dimension of efficiency: It refers to the researcher's feeling of confidence in himself and his abilities and capabilities to achieve his goals. Also, it includes his possession of research capabilities and skills that help him to search various sources easily and organize his time and management effectively to accomplish his research work.

3- Dimension of independence and good behavior: it means the ability of the researcher to take responsibility for his actions to perform his scientific tasks, apply valuable programs and tools in the field of scientific research and control the problems he faces. Also, it includes his ability to accomplish his academic and research tasks freely and independently and his confidence in himself in making decisions related to his research tasks efficiently and effectively.

4. Dimension of Influence: It means the researcher's ability to influence others and reflect his personal opinions and impressions on performing his various academic and research tasks. It also contains his ability to control his opinions and impressions positively and possess effective leadership skills that support his ability to make decisions that benefit the field of scientific research.

In light of the above, the researcher believes that psychological empowerment is one of the important topics that motivates researchers and makes them more able to carry out meaningful study and research tasks efficiently. It also helps to face the challenges and frustration of their various motives. In addition, it contributes to supporting their self-confidence in making decisions freely and taking responsibility for their actions and making them able to influence others and the work they do. In the context of this study, it is defined by the degree obtained by postgraduates on the psychological empowerment scale used in the current research (prepared by the researcher).

Several previous studies addressed informational culture. Al-Sulami (2007) showed the availability of the skill of determining the need for information and criteria for assessing and using data among master and doctoral students. Hepworth (2009) showed that students in the final year of the university possessed information culture skills at a high level. The results proved that there were no statistically significant differences due to the variables of gender and specialization. Schroeder and Cahoy (2010) found that the level of information culture among American universities students was high. Barakat and Ziad (2012) concluded that there were statistically significant differences in the general level of information culture among the study sample according to international standards due to the variable of the highest academic level in favor of outstanding students and those in the third and fourth year. Also, there were no statistically significant differences in the level of information culture among students due to the variables of gender and specialization. Walton and Mark (2013) also showed that the information culture of university students at Staffordshire University helped to activate the cognitive processes involved in enabling participants to deal with information and that social media contribute to increasing their information culture and improving their learning. Shady (2018) shed light on the importance of information culture skills by comparing the standards of information culture in the state of Nebraska in America and the state of Transcona in Canada. The results emphasized the need to inculcate information culture skills such as intellectual property protection in students' minds since childhood so that they could become successful independent researchers in the future. Madadha (2018) revealed that the level of information culture in Jordanian public universities, in general, was high. The study revealed that there were no statistically significant differences due to the variables of gender, specialization and academic level. Radad's (2019) study showed that the educational system in STEM schools acquired students with several skills that support information culture and research skills and push them to excel, innovate and create, especially information search skills. Finally, Al-Hamza and Al-Balkhiri (2020) indicated

that information culture enabled individuals to build objective judgments about all issues and problems they deal with and facilitated students' access to information related to their reality, environment, health, and study work and to take the appropriate decision at the right time.

Some previous studies that addressed psychological empowerment have indicated different results. Chaing and Hsieh (2012) concluded that there was a positive effect of psychological empowerment in its various dimensions on a person's job performance level. Aghaei and Savari (2014) revealed that there was a correlation between the dimensions of psychological empowerment (meaning, efficiency, influence, choice) and professional commitment. It showed that professional commitment could be predicted through psychological empowerment. Mustafa and Taha (2015) showed that there was a positive correlation between the psychological empowerment variable (meaning, efficiency, self-determination, impact) and each self-advocacy and university students' perceptions of fair classes. Al-Nawajah (2016) revealed that there were no differences in psychological empowerment according to the gender variable except for (the post-test). The differences were in favor of males. Huang (2017) showed that psychological empowerment and self-efficacy led to proactive behavior among MBA students in southern Chinese universities. Al-Sherida and Abdul Latif (2018) indicated that there was a positive correlation between psychological empowerment and creative teaching skills among teachers. Al-Dahamsheh (2019) showed that psychological empowerment, perceived self-efficacy and achievement motivation were medium among secondary school students. The study also proved that there were no statistically significant differences between the scores of psychological empowerment due to the gender variable.

• The current research has benefited from previous studies in defining the research problem and sample, designing and building research instruments and interpreting the results of the current research. The current research differs from previous studies; it studies the relationship of information culture to psychological empowerment. This relationship has not been addressed in Arab and foreign studies within the limits of the researcher's best knowledge. It was found from the results of previous studies that there were differences in the information culture of the different samples due to the variables of gender, specialization, college, experience and academic level in the stages of education in undergraduate studies. Al-Salmi's (2007) study addressed master and doctoral students. Also, studies that addressed psychological empowerment among samples of teachers and secondary students focused on the differences attributed to gender and experience. In light of these results, the researcher was interested in knowing the differences between male and female students at the master and doctoral levels on the scales of information culture and psychological empowerment in terms of age, gender (male and female), and master and doctoral programs. No study that addressed the variables of the current research was found.

Statement of the problem

The importance of information culture appears in the role it plays in enabling students to solve the problems they face and reach what they need in their lives, their academic and research work. It is also important in encouraging lifelong learning. University students feel the meaning of the research work and their efficiency to carry out the research tasks required of them and their ability to prioritize research information in a way that affects the output of the research work in a manner characterized by accuracy, reliability and ethics. This indicates that they are psychologically competent. Hence, the idea of the current research appeared and aimed to reveal the nature of the relationship between information culture and psychological empowerment among postgraduate students. The research problem is crystallized in the following main question:

-What is the relationship between information culture and psychological empowerment among postgraduate students?

The sub-questions were as follows:

1- What is the level of information culture among postgraduate students?

2- What is the level of psychological empowerment among postgraduate students?

3- Is there a relationship between information culture and psychological empowerment among postgraduate students?

4- Are there differences in the information culture among the study sample due to the variables of (age - gender - program)?

5- Are there differences in psychological empowerment among the study sample due to the variables of (age - gender - program)?

Objectives of the study

The current research aims to know the degree of information culture and the level of psychological empowerment among postgraduate students. Also, it aims at revealing any correlation between information culture and psychological empowerment among the study sample. In addition, it aimed at knowing the differences between them on the scales of information culture and psychological empowerment according to the variables (age, gender "males - females", program "Masters - Ph.D.").

Significance of the study

1- The significance of the research stems from the importance of the modern topic that it addresses in the field of continuing education, the information culture of postgraduate students. It requires an appropriate capacity for psychological empowerment that motivates them and increases their self-confidence.
2- There were no Arab or foreign studies (within the researcher's knowledge) that addressed the relationship between the variables of the current research.
3- Building two research scales to measure the variables of information culture and psychological empowerment.
4- The results of this research can contribute effectively to the field of continuing education.
5- Providing recommendations that can be used to spread the information culture and enhance psychological perceptions of empowerment to support continuing education.

Method

Research design

The researcher used the descriptive-correlative method for its relevance to the current research procedures.

Population and sample of the study

The main research sample consisted of (85) postgraduate students enrolled in master's and doctoral programs at the Faculty of Education in Abha, King Khalid University in Saudi Arabia for the academic year of 2021/2022. It included (33) males and (52) females. Their ages ranged between (23-49) years, with an average of (33.74) and a standard deviation of (6.29). The following tables show the distribution of the sample according to demographic characteristics (age - gender - program) as follows:

Table 1. Distribution of the study sample according to age

Age	No.	%
Less than 35 years old	52	62.4
35 years old or more	33	37.6
Total	85	100.0

Table 1 shows that the research sample of (85) male and female students in master and doctoral programs at the Faculty of Education, King Khalid University in Saudi Arabia was distributed by (62.4%) for the age group (less than 35 years old) and (37.6%) for the age group (35 years old and more).

Table 2. Distribution of the study sample according to gender

Gender	No.	%
Male	33	38.8
Female	52	61.2
Total	85	100.0

According to Table 2, the research sample of (85) male and female students in master and doctoral programs at the Faculty of Education, King Khalid University in Saudi Arabia was distributed at a rate of (61.2%) for females and (38.8%) for males.

Table 2. Distribution of the study sample according to program

Program	No.	%
Master	57	67.1

Doctorate	28	32.9
Total	85	100.0

Table 3 shows that the research sample of (85) male and female students in master and doctoral programs at the Faculty of Education, King Khalid University in Saudi Arabia was distributed at a rate of (67.1%) for the master program and (32.9%) for the doctoral program.

Instruments of the study

The researcher prepared the two current research instruments. She designed them on the Google website via the Internet and applied them electronically to the research sample. She sent the link of the two search instruments via WhatsApp, one of the social media, to groups dedicated to female and male students in the master's and doctoral stages at the Faculty of Education in Abha, King Khalid University in Saudi Arabia. Then, the researcher verified the characteristics of the psychometric efficiency of the two instruments in the Saudi context on a sample of (48) master's and doctoral students at the Faculty of Education in Abha - King Khalid University, at a rate of (22) males and (26) females. Their ages ranged between (23-49) years with a mean of (34.23) and a standard deviation of (6.34).

Psychometric efficiency of instruments

Face Validity

The face validity of the two instruments (information culture and psychological empowerment) was verified. The researcher presented them in their initial version to a group of experts (9) who specialized in educational psychology, psychometrics, mental health, clinical psychology and educational technology. In light of their opinions and directions, slight linguistic modifications were made for each scale. Therefore, the two scales came out with their final version for the application to the current research sample. These two scales can be explained as follows:

1- Information culture scale (prepared by the researcher)

After the researcher reviewed the literature and previous Arab and foreign studies related to the topic of information culture, the scale of information culture was built for the current research. It aimed to measure the information culture of postgraduate students (Master and Ph.D.) at the Faculty of Education in Abha, King Khalid University - Kingdom of Saudi Arabia. Items that fall under each dimension were formulated. The total number of items on the information culture scale reached (34) under three dimensions. The first dimension [determining the need for information and its sources and how to access it] includes (10) items from (1-10). The second dimension [assessment and criticism of information, selection and use of appropriate information efficiently] includes (12) items from (11-22). The third dimension [personal responsibility and ethical issues for using information] includes (12) items from (23-34). It should be noted that all the statements are positive. These statements were corrected with grading weights: (always)=(5) degrees - (often)=(4) degrees - (sometimes)=(3) degrees - (rarely)=(2) two degrees - (never) (1)=one degree. The score (34) indicates low information culture skills for the student. The score (170) also indicates a high level of information culture skills for the student.

Internal consistency

It shows the extent to which each statement is related to the dimension to which it belongs. Also, it shows the extent to which each dimension of the scale is related to the total score of the scale items. These two methods are summarized by calculating the correlation coefficient between each item and the dimension to which it belongs and the correlation coefficient between the dimensions and the total score of the information culture scale.

Table 4. The value of the correlation coefficient between the item and the dimension it belongs to in the scale of information culture (n = 48)

Determining the need for information and its sources and how to access it	Assessment and criticism of information, selection and use	Personal responsibility and ethical issues for using information

		of appropriate information efficiently			
N	Correlation coefficient	N	Correlation coefficient	N	Correlation coefficient
1	**0.500	11	**0.750	23	**0.589
2	**0.637	12	**0.721	24	**0.861
3	**0.581	13	**0.876	25	**0.670
4	**0.369	14	**0.636	26	**0.782
5	*0.298	15	**0.597	27	**0.665
6	**0.682	16	**0.820	28	**0.677
7	**0.595	17	**0.690	29	**0.588
8	**0.665	18	**0.799	30	**0.561
9	**0.433	19	**0.749	31	**0.787
10	**0.629	20	**0.756	32	**0.396
-	-	21	**0.712	33	**0.773
-	-	22	**0.406	34	**0.618

* Significant at (0.01)
** Significant (0.05)

Table 4 shows that the correlation coefficients between each item and the dimension to which it belongs were statistically significant at (0.01), except for the fifth item in the first dimension. It was statistically significant at (0.05) for the scale of information culture. This indicates the consistency of the scale and the validity of its content (its items) to measure what was developed to measure, information culture.

Table 5. Validity of the correlation coefficients between the dimensions and the total score of the information culture scale

Dimensions	Determining the need for information and its sources and how to access it	Assessment and criticism of information, selection and use of appropriate information efficiently	Personal responsibility and ethical issues for using information	Total
Determining the need for information and its sources and how to access it	-	**0.677	**0.682	**0.852
Assessment and criticism of information, selection and use of appropriate information efficiently	**0.677	-	**0.714	**0.920
Personal responsibility and ethical issues for using information	**0.682	**0.714	-	**0.895
Total	**0.852	**0.920	**0.895	-

** Significant at (0.01)

According to Table 5, there was a statistically significant correlation between the dimensions to each other and between the dimensions and the total degree at (0.01). This indicates that the information culture scale is valid.

Reliability

The researcher relied on the split-half and Cronbach's Alpha Coefficient to check the

reliability of the information culture scale. The results were as shown in Table 6.

Table 6. Reliability coefficients using split-half and Cronbach's alpha coefficient for the dimensions of the information culture scale (n = 48)

Dimensions of information culture	split-half coefficients	Reliability coefficients	Cronbach's alpha
Determining the need for information and its sources and how to access it	0.552	0.711	0.719
Assessment and criticism of information, selection and use of appropriate information efficiently	0.831	0.908	0.906
Personal responsibility and ethical issues for using information	0.555	0.714	0.884
Total	0.800	0.889	0.936

Table 6 demonstrates that the reliability coefficient was good. This result indicates that the information culture scale has good reliability. Reliability was also calculated using Cronbach's alpha coefficient for each item after deleting it from the information culture scale. Table 7 illustrates the results.

Table 7. The value of alpha of each item after its deletion and the total alpha value of the information culture scale

Item no.	Alpha value	Item no.	Alpha value
1	0.936	18	0.935
2	0.935	19	0.935
3	0.937	20	0.934
4	0.936	21	0.936
5	0.935	22	0.937
6	0.937	23	0.936
7	0.937	24	0.935
8	0.936	25	0.935
9	0.934	26	0.935
10	0.937	27	0.936
11	0.936	28	0.936
12	0.936	29	0.937
13	0.935	30	0.935
14	0.934	31	0.936
15	0.937	32	0.936
16	0.935	33	0.936
17	0.935	34	0.937
Total		0.938	

Table 7 displays that the alpha value of each item was less than the total alpha value. This indicates that the information culture scale has good reliability.

2. Psychological empowerment scale (prepared by the researcher)

After the researcher reviewed the literature and previous Arab and foreign studies related to the topic of psychological empowerment and its various dimensions, the scale of psychological empowerment was built for the current research. It aimed to measure the level of psychological empowerment among postgraduate students (Masters and Ph.D.) at

the Faculty of Education in Abha, King Khalid University - Kingdom of Saudi Arabia. The number of psychological empowerment scale items reached (25), distributed over four dimensions. The first dimension [meaning] includes (7) items from [1-7]. The second dimension [efficiency] includes (6) items from [8 to 13]. The third dimension [independence and good behavior] contains (6) items from [14-19]. The fourth dimension [influence] has (6) items from [20-25]. These items were corrected with grading weights: (always)=(5) degrees - (often)=(4) degrees - (sometimes)=(3) degrees - (rarely)=(2) two degrees - (never) (1)=one degree. All items were positive. The score (25) indicates a low feeling of psychological empowerment for the student whereas the score (125) indicates a high feeling of psychological empowerment for the student.

Validity

Internal consistency was calculated in two ways: by calculating the correlation coefficient between each item and the dimension to which it belongs and calculating the correlation coefficient between the dimensions and the total score of the psychological empowerment scale.

Table 8. The value of the correlation coefficient between the item and the dimension it belongs to in the psychological empowerment scale (n = 48)

Meaning		efficiency		Independence and good behavior		Influence	
N	Correlation coefficient	N	Correlation coefficient	N	Correlation coefficient	N	Correlation coefficient
1	**0.676	8	**0.816	14	**0.688	20	**0.682
2	**0.817	9	**0.779	15	**0.810	21	**0.733
3	**0.877	10	**0.887	16	**0.828	22	**0.863
4	**0.847	11	**0.910	17	**0.752	23	**0.863
5	**0.822	12	**0.718	18	**0.874	24	**0.827
6	**0.916	13	**0.635	19	**0.882	25	**0.751
7	**0.898						

** Significant at (0.01)

According to Table 8, the correlation coefficients between each item and the dimension to which it belongs were all statistically significant at (0.01). This result indicates the consistency of the scale and the validity of its content (its items) to measure what was set to measure [psychological empowerment].

Table 9. The validity of the correlation coefficients on the psychological empowerment scale (n = 48)

Dimensions	Meaning	Efficiency	Independence and good behavior	Influence	Total
Meaning	-	**0.831	**0.790	**0.750	**0.919
Efficiency	**0.831	-	**0.816	**0.771	**0.928
Independence and good behavior	**0.790	**0.816	-	**0.845	**0.935
Influence	**0.750	**0.771	**0.845	-	**0.907
Total	**0.919	**0.928	**0.935	**0.907	-

** Significant at (0.01)

Table 9 shows that there was a statistically significant correlation between the dimensions to each other and between the dimensions and the total degree at (0.01). This result indicates the validity of the psychological empowerment scale.

Reliability

The researcher relied on the split-half and Cronbach's Alpha Coefficient to check the reliability of the psychological empowerment scale. The results were as shown in Table 10.

Table 10. Reliability coefficients using split-half and Cronbach's alpha coefficient for the dimensions of psychological empowerment scale (n = 48)

Dimensions of psychological empowerment	split-half coefficients	Reliability coefficients	Cronbach's alpha
Meaning	0.862	0.926	0.926
Efficiency	0.788	0.882	0.871
Independence and good behavior	0.803	0.891	0.890
Influence	0.685	0.813	0.873
Total	0.851	00.920	0.965

Based on Table 10, the reliability coefficient was good. This result indicates that the scale of psychological empowerment has good reliability. Reliability was also calculated using Cronbach's alpha coefficient for each item after it was deleted from the psychological empowerment scale. Table 11 shows the results.

Table 10. The alpha value of each item after its deletion and the total alpha value of the psychological empowerment scale

Item no.	Alpha value	Item no.	Alpha value
1	0.964	14	0.962
2	0.963	15	0.964
3	0.964	16	0.962
4	0.961	17	0.964
5	0.962	18	0.963
6	0.964	19	0.964
7	0.961	20	0.961
8	0.963	21	0.964
9	0.962	22	0.963
10	0.964	23	0.963
11	0.964	24	0.962
12	0.963	25	0.962
13	0.963	-	-
Total		0.965	

Table 11 shows that the alpha value of the item is less than the total alpha value. This result indicates the reliability of the psychological empowerment scale.

Statistical processing

First, to calculate validity and reliability, Pearson correlation coefficient, Cronbach's Alpha coefficient and Spearman-Brown coefficient were used. Second, to compute the statistical tests of the research results, a one-sample t-test, Independent samples t-test, Pearson correlation coefficient and Friedman test were used.

Results and discussion

The research questions were represented in hypotheses that were tested statistically. The results were as follows:

Results of the first hypothesis: There are no statistically significant differences between the hypothetical mean and the mean scores of the current sample on the scale of information culture of postgraduate students.

To verify the validity of this hypothesis, the means, standard deviations and the ratio order of each dimension of information culture were calculated. The one-sample t-test and the Friedman test were computed. The results were presented in Table 12 as follows.

Table 12. Means, weights and standard deviations of the sample's responses about the level of their information culture

Dimensions of culture	No. of items	Mean	Standard deviation	Weighted average	t	Rank	Chi-Square-2 & sig.
Determining the need for information and its sources and how to access it	10	37.00	5.52	3.70	**5.11	3	128.25 Sig.at 0.01
Assessment and criticism of information, selection and use of appropriate information efficiently	12	48.51	8.69	4.04	**47.85	2	
Personal responsibility and ethical issues for using information	12	52.16	7.15	4.35	**62.84	1	
Total	34	137.67	19.20	4.05	**64.48		

**Significant at (0.01)

Table 12 shows the significance of the t-test was at (0.01). The general mean of the study sample's responses in information culture was (137.67). It is a means that falls within the first category of the information culture scale (137-170), the category that indicates a high response. This is because the three dimensions of information culture fall within the high category of the scale of information culture. There were also statistically significant differences in the ratio importance of the dimensions of information culture among the research sample. In detail, the dimension of personal responsibility and ethical issues for using information is the most practiced dimension, the weighted average was (4.35). This average falls within the first category of the five-point Likert scale (4.20 - 5). It refers to a very high level. Then, came assessment and criticism of information, selection and use of appropriate information efficiently, followed, by the dimension of (Determining the need for information and its sources and how to access it). The weighted averages of the research sample's responses were (4.04, 3.70) respectively. These averages fall within the second category of the five-point Likert scale (3.40 - 4.19). This category indicates a high level.

This result can be explained by the fact that male and female postgraduate students enrolled in the master's and doctoral programs at the Faculty of Education at King Khalid University, Kingdom of Saudi Arabia practice personal responsibility and ethical issues for using information to a very high degree. They have reached a high level of expertise and scientific maturity in the stage of working with the thesis, which is the last stage in the program, whether a master's or doctorate. To illustrate, they employ all the information that suits them ethically and innovatively, adhere to scientific honesty in their use and take into account the copyright and intellectual property rights of others. Also, they can exchange information over the Internet via e-mail or social media. In addition, they constantly seek to develop their knowledge and information during the work on the scientific thesis, whether master's or doctorate, until its completion to support the scientific research process and to produce scientific research that contributes positively to the service of their community.

The results also indicated that they practice both the dimensions of (assessment and criticism of information, selection and use of appropriate information efficiently) and (determining the need for information, its sources and how to access it) to a high degree. This means that the sample members also learned a lot in this field during the study levels in both the master and doctoral programs at King Khalid University. Their experience and informational skills increase; they can identify the information they need in their research and choose the best, explain it scientifically and criticize it positively. Thus, they realize the importance of using it efficiently and presenting it with creativity and distinction and coming up with a

new scientific production that increases the richness of the field of scientific research.

These results are in agreement with the findings of the study by Madadha (2018) about the high level of information culture among students of the University of Jordan. They also meet with the study of Schroeder and Cahoy (2010), which proved that the level of information culture among American university students was high. In addition, the results intersect with the study of Al-Salmi (2007) and that of Bel-Abbas and Rakik (2016) on the availability of skills to determine the need for information and assessment criteria for postgraduate students at King Abdulaziz University and students at the University of M'sila in Algeria.

Results of the second hypothesis: There are no statistically significant differences between the hypothetical mean and the mean scores of the current sample students on the scale of psychological empowerment among postgraduate students.

To verify the validity of this hypothesis, the means, standard deviations and the ratio order of each dimension of information culture were calculated. The one-sample t-test and the Friedman test were computed. The results were presented in Table 13 as follows.

Table 13. Means, weights and standard deviations of the sample's responses about the level of their psychological empowerment

Dimensions of culture	No. of items	Mean	Standard deviation	Weighted average	t	Rank	Chi-Square-2 & sig.
Meaning	7	30.56	5.58	4.37	**44.87	1	156.83 Sig at 0.01
Efficiency	6	23.76	5.20	3.96	**36.09	3	
Independence and good behavior	6	24.47	5.14	4.08	**37.79	2	
Influence	6	23.38	4.73	3.90	**38.89	4	
Total	25	102.18	19.08	4.09	**47.72		

**Significant at (0.01).

Table 13 shows that the significance of the t-test at (0.01). The overall means of the research sample's responses to psychological empowerment was (102.18), a means that falls within the first category of the psychological empowerment scale (101 - 125). This category indicates a high response. This is because the four dimensions of psychological empowerment fall within the high and very high categories of the psychological empowerment scale. There were also statistically significant differences in the ratio importance of the dimensions of psychological empowerment among the research sample. To illustrate, the dimension of meaning was the most fulfilled. The weighted average was (4.37). This average falls within the first category of the five-point Likert scale (4.20 - 5). It indicates a very high level of psychological empowerment, followed by (independence and good behavior), (efficiency) and (impact). The weighted averages of the study sample's responses were (4.08), (3.96), (3.90) respectively. These averages fall within the second category of the five-year Likert scale (3.40 - 4.19). It indicates the high verification of psychological empowerment among the current research sample.

This result can be explained by the fact that male and female postgraduate students enrolled in the master's and doctoral programs at the Faculty of Education at King Khalid University, Kingdom of Saudi Arabia are characterized by a very high level of psychological empowerment. This indicates that they feel psychological satisfaction with their study and research work that is very meaningful to them. The results indicated that there were statistically significant differences in the ratio importance of the dimensions of psychological empowerment. The dimension of meaning indicates a very high level of achievement among the current research sample. On a personal level, they feel that their higher education and obtaining a master's or doctoral degree are of great importance and value to them. They face challenges in their research assignments based on that importance, yet they feel psychologically satisfied that leads to their sense of mastery in the field of scientific research. As for the three dimensions (efficiency - independence and good behavior -

influence), it was found that psychological empowerment was achieved at a high level. They feel confident in their abilities and capabilities to achieve their scientific goals and possess research skills and the ability to manage their time effectively. They can take responsibility for their actions to perform and accomplish their scientific tasks freely and independently; therefore, they can overcome by themselves the problems they face when carrying out the tasks of their studies and scientific research. As a result, this reflects their personality in carefully selecting information to interpret the results of their research and to make proposals that will satisfy others. It also reflects in coming up with positive recommendations in light of the results of their research and supporting their abilities to make decisions related to the tasks of their dissertations whether master's or doctoral.

Results of the third hypothesis: There is no statistically significant correlation between information culture and psychological empowerment among postgraduate students.
To test the validity of this hypothesis, the correlation coefficient (Pearson) was used between the scores of the research sample on the scales of information culture and psychological empowerment. Table 14 shows the results.

Table 14. The relationship between information culture and psychological empowerment among the research sample (n = 85)

Dimensions	Meaning	Efficiency	Independence and good behavior	Influence	Total
Determining the need for information and its sources and how to access it	**0.649	**0.625	**00.543	**0.522	**0.636
Assessment and criticism of information, selection and use of appropriate information efficiently	**0.630	**0.542	**0.626	**0.608	**0.652
Personal responsibility and ethical issues for using information	**0.840	**0.667	**0.618	**0.654	**0.756
Total	**0.785	**0.673	**0.670	**0.669	**0.760

**Significant at (0.01).

According to Table 14, there is a statistically positive significant correlation between information culture and psychological empowerment among postgraduate students at the Faculty of Education, King Khalid University at (0.01). This result is logical. That the members of the current sample depend on studying their courses and scientific thesis on determining and collecting the information they need from all the sources available to them, whether traditional available in different libraries or electronic ones available via the Internet in the Saudi Digital Library on the King Khalid University website or Google. Therefore, they can obtain the appropriate information for their research work efficiently and use it accurately and innovatively taking into account intellectual property rights by documenting all Arab and foreign references with complete accuracy and independently. This makes them feel the value of the information they receive and take social responsibility toward it. Given that psychological empowerment is a positive feeling based on sound behaviors that lead to the efficient and effective performance of work tasks, students feel psychological satisfaction with their study and research work that is meaningful to them and face all the challenges they face. They also generate a sense of self-confidence and awareness of their abilities and potential to achieve their goals. This helps them to manage their time effectively while taking responsibility for their actions to accomplish their academic and research tasks freely, independently and efficiently. They can also have positive control over them because they possess skills that raise their research efficiency, their sense of responsibility for the research work in a master's or doctoral thesis

and their ability to make their own decisions regarding that work. The differences are clear in their research performance from others, and they affect them, which increases their level of self-motivation and enhances their self-confidence and their sense of the value of their research performance. Then, it reflects in their self-respect and supports psychological perceptions to enable their abilities to control their academic performance and scientific research to obtain a master's and doctoral degree. All of these points confirm the existence of a strong positive correlation between information culture and psychological empowerment among postgraduate students.

This result is consistent with the findings of the study by Al-Hamza and Al-Balkhiri (2020) that showed information culture enables individuals to build objective judgments about all issues and problems they deal with. It also facilitates students' access to information related to their study work and makes the right decision at the right time. Also, this result coincides with that of a study by Walton and Mark (2013), whose results showed that the information culture of university students at Staffordshire University helped to activate the cognitive processes involved in enabling participants to deal with information.

Results of the fourth hypothesis: There are no statistically significant differences between the mean scores of the sample members on the information culture scale due to the variables:
[Age (less than 35 years old - 35 years or more) - gender (males - females) - program (Masters - PhD)].
To verify the validity of this hypothesis, the following three hypotheses were tested:
The first hypothesis:- There are no statistically significant differences between the mean scores of the sample members on the scale of information culture due to the age variable (less than 35 years old - 35 years or more).
To test the validity of this hypothesis, an Independent samples t-test was used as shown in Table 15.

Table 15. Significance of differences in the scale of information culture according to the age variable (n = 85)

Dimensions of information culture	Category	No.	Mean	Standard deviation	t	Sig(tailed-2)
Determining the need for information and its sources and how to access it	Less than 35 years old	53	35.42	5.26	3.647	Sig at 0.01
	35 years old or more	32	39.63	4.98		
Assessment and criticism of information, selection and use of appropriate information efficiently	Less than 35 years old	53	47.35	8.51	1.568	Insig.
	35 years old or more	32	50.41	8.79		
Personal responsibility and ethical issues for using information	Less than 35 years old	53	50.96	7.70	2.031	Sig. at0.05
	35 years old or more	32	54.16	5.72		
Total	Less than 35 years old	53	133.74	19.56	2.507	Sig. at0.05
	35 years old or more	32	144.19	16.94		

Table 15 shows that there were statistically significant differences in the mean scores of the sample members on the scale of information culture between the total score and the dimension of (determining the need for information and its sources and how to access it - personal responsibility and ethical issues for using information) due to the age variable. The values of t were (2.507 - 3.647 - 2.031) respectively at (0.05, 0.01) in favor of (35 years and over). This age group has a higher ability to determine the need for information, its sources and how to access it, and can assume personal responsibility and ethical issues for using information. Also, there were no statistically significant differences between them in the

dimensions of (assessment and criticism of information and selection and use of appropriate information efficiently).

This result can be explained by the fact that the postgraduate students in the current sample of the age group (35 years or more) are more mature and more experienced in determining the information they need and reliable sources. They also have a greater ability to access information
and bear personal responsibility for their use of this information and employing it efficiently in their scientific research, whether master or doctoral degree. In addition, they document all the information accurately to take into account the intellectual property rights of the authors as they acquire these skills during the levels of the master and doctoral programs) more than the age group (less than 35 years). However, the two categories converge in assessment and criticism of information, selecting the appropriate and using it efficiently. They can distinguish between information related to the subject of their study and the variables of their scientific research and information far from it. Also, they choose the most appropriate information and use it in an innovative way that addresses their research questions and analyzes them in appropriate ways. Therefore, there were no statistically significant differences between them. This result indicates that this hypothesis is partially verified. This result is in part consistent with the findings of the study of Bel-Abbas and Rakik (2016) that students at the University of M'sila in Algeria possessed the skill to identify the need for information and realize the extent of its importance to them in all aspects of life.

The second hypothesis: - There are no statistically significant differences between the mean scores of the sample members on the scale of information culture due to the gender variable (males - females).
To test the validity of this hypothesis, an Independent samples t-test was used as shown in Table 16.

Table 16. Significance of differences in the scale of information culture according to the gender variable (n = 85)

Dimensions of information culture	Category	No.	Mean	Standard deviation	t	Sig(tailed-2)
Determining the need for information and its sources and how to access it	Male	33	39.00	4.18	2.76	Sig. at 0.01
	Female	52	35.73	5.92		
Assessment and criticism of information, selection and use of appropriate information efficiently	Male	33	49.55	9.32	0.878	Insig.
	Female	52	47.85	8.28		
Personal responsibility and ethical issues for using information	Male	33	53.82	5.47	1.717	Insig.
	Female	52	51.11	7.91		
Total	Male	33	142.36	16.32	1.820	Insig.
	Female	52	134.69	20.41		

According to Table 16, there were no statistically significant differences in the mean scores of the sample members on the scale of information culture between the total score and the two dimensions (assessment and criticism of information, selection and use of the appropriate information efficiently, personal responsibility and ethical issues for using information) due to the gender variable. The value of t was (1.820 - 0.878 - 1.717) respectively. Also, there were statistically significant differences between them in the dimension of (determining the need for information and its sources and how to access it) at (0.01) in favor of males. This is because males have more time, skill and a higher ability to determine the need for information, its sources, and how to access it than females. This indicates the partial verification of the second hypothesis. These results are consistent with the findings of the study by Hepworth (2009), Barakat (2012) and Madadha (2018) in that

there were no statistically significant differences due to the gender variable in information culture. However, they partly differ from the results of those studies in the presence of statistically significant differences in determining the need for information and its sources and how to access it for the benefit of males.

The third hypothesis: - There are no statistically significant differences between the mean scores of the sample members on the scale of information culture due to the program variable, including (Master - Ph.D.).

To test the validity of this hypothesis, an Independent samples t-test was used as shown in Table 17.

Table 17. Significance of differences in the scale of information culture according to the program variable (n = 85)

Dimensions of information culture	Category	No.	Mean	Standard deviation	t	Sig(tailed-2)
Determining the need for information and its sources and how to access it	Master	57	35.49	5.02	3.886	Sig. at 0.01
	PhD	28	40.07	5.27		
Assessment and criticism of information, selection and use of appropriate information efficiently	Master	57	46.67	9.71	3.690	Sig. at 0.01
	PhD	28	52.25	4.22		
Personal responsibility and ethical issues for using information	Master	57	41.14	7.91	2.251	Sig. at0.05
	PhD	28	54.25	4.77		
Total	Master	57	133.30	20.13	3.151	Sig. at 0.01
	PhD	28	146.57	13.57		

Table 17 shows that there were statistically significant differences in the mean scores of the sample members on the scale of information culture between the total score and the dimensions of (determining the need for information and its sources and how to access it, assessment and criticism of information, selection and use of appropriate information efficiently, personal responsibility and ethical issues for using information) attributed to the program. The value of t was (3.886 - 3.690 - 3.251 - 3.151) respectively at (0.01) in favor of those registered in the doctoral program. They are more mature, efficient and experienced in information culture skills than those enrolled in a master's program. This indicates the rejection of the null hypothesis and the acceptance of the alternative hypothesis. As a result, there were statistically significant differences between doctoral students and master's students in information culture in favor of doctoral students. This result is consistent with what was indicated by Barakat's (2012) study that students of higher years at university were more efficient in information culture.

Results of the fifth hypothesis: There are no statistically significant differences between the mean scores of the sample members on the psychological empowerment scale due to the variables of [age (less than 35 years, 35 years or more), gender (males - females) and program (Master - Ph.D.).

To verify the validity of this hypothesis, the following three hypotheses were tested:

The first hypothesis: - There are no statistically significant differences between the mean scores of the sample members on the psychological empowerment scale due to the age variable (less than 35 years old - 35 years or more).

To test the validity of this hypothesis, an Independent samples t-test was used as depicted in Table 18.

Table 18. Significance of differences in the scale of information culture according to the age variable (n = 85)

Dimensions of psychological empowerment	Category	No.	Mean	Standard deviation	t	Sig(tailed-2)
Meaning	Less than 35 years old	53	30.13	6.22	0.919	Insig.
	35 years old or more	32	31.28	4.32		
Efficiency	Less than 35 years old	53	23.08	5.61	1.586	Insig.
	35 years old or more	32	24.91	4.30		
Interdependence and good behavior	Less than 35 years old	53	24.19	5.41	0.649	Insig.
	35 years old or more	32	24.94	4.70		
Influence	Less than 35 years old	53	22.92	4.66	1.134	Insig.
	35 years old or more	32	24.13	4.82		
Total	Less than 35 years old	53	100.32	20.09	1.156	Insig.
	35 years old or more	32	105.25	17.14		

Table 18 shows that there were no statistically significant differences between the mean scores of the sample members on the psychological empowerment scale in the total degree and dimensions (meaning - efficiency - independence and good behavior - influence) due to the age variable. The values of t were (0.919 - 1.586 - 0.649 - 1.134 - 1.156) respectively. These are non-statistically significant values. This result indicates that the first hypothesis has been fully accepted. This result can be explained by the fact that all members of the current sample appreciate the importance of postgraduate studies, feel the meaning of research work and are dedicated to accomplishing it as best as possible. Also, they possess skills that support their research capabilities and take responsibility for their actions to perform and accomplish the scientific tasks they undertake. In addition, they influence others with their ideas and suggestions through their research experience regardless of their age. Therefore, there are no differences between master and doctoral students who are less than (35) years old and those who are (35) years old or more regarding their sense of psychological empowerment. It enhances their confidence in their abilities and makes them accept the study of master's and doctoral degrees with their desire and will due to their sense of its importance and meaning in their lives and the impact of their position in the community. This result confirms what was indicated by Al-Majdalawi (2020) that psychological empowerment is a means to increase the ability to make decisions in work situations as it is an internally motivating and exciting component. Also, it allows the individual to feel and realize that he or she can be self-confident and get things done.

The second hypothesis: - There are no statistically significant differences between the mean scores of the sample members on the psychological empowerment scale due to the gender variable (male-female).

To test the validity of this hypothesis, an Independent samples t-test was used as displayed in Table 19.

Table 19. Significance of differences in the scale of information culture according to the gender variable (n = 85)

Dimensions of psychological empowerment	Category	No.	Mean	Standard deviation	t	Sig(tailed-2)

Meaning	Male	33	31.64	3.97	1.419	Insig.
	Female	52	29.88	6.33		
Efficiency	Male	33	25.27	3.44	2.433	Sig. at 0.05
	Female	52	22.81	5.89		
Interdependence and good behavior	Male	33	24.18	4.70	0.411	Insig.
	Female	52	24.65	5.44		
Influence	Male	33	23.55	3.86	0.261	Insig.
	Female	52	23.27	5.25		
Total	Male	33	104.64	14.73	0.946	Insig.
	Female	52	100.62	21.38		

According to Table 19, there were no statistically significant differences between the mean scores of the sample members on the psychological empowerment scale in the total score and dimensions (meaning - independence and good behavior - influence) due to the gender variable.

The value of t was (1.419 - 0.411 - 0.946) respectively. However, there were statistically significant differences attributed to gender in the dimension of efficiency at the level of significance (0.05) in favor of males. This result means that males are more efficient than females. This result indicates that the second hypothesis is partially accepted. This result can be explained that male and female master's and doctoral students did not have any significant differences between them the three dimensions of psychological empowerment (meaning - independence and good behavior - efficiency) because they all understand the importance and value of postgraduate studies. Also, they feel psychologically satisfied with their research work and try to overcome the difficulties and challenges that face them and take responsibility for their actions to accomplish the tasks required in the field of scientific research for master's and doctorate freely and independently and control them positively. In addition, this makes them able to influence others as well as reflect on their impressions on performing these research tasks and making decisions that benefit their master's and doctoral thesis. Further, males differ from females in the dimension of efficiency) on the psychological empowerment scale. Given that, most males are more efficient and have a sense of self-confidence and their abilities and capabilities to effectively organize and manage their time to accomplish their master's and doctoral research tasks to achieve their goals than females. Some females bear family responsibilities and household burdens, which reduce their efficiency compared to males. These results are in agreement with the findings of the study of Al-Dahamsheh (2019), which showed no statistically significant differences in psychological empowerment due to the gender variable. The results also agree with those of the study of Al-Nawajah (2016), which revealed that there were differences in favor of males in one of the dimensions of psychological empowerment.

The third hypothesis: - There are no statistically significant differences between the mean scores of the sample members on the psychological empowerment scale due to the program variable (male-female).

To test the validity of this hypothesis, an Independent samples t-test was used as displayed in Table 20.

Table 20. Significance of differences in the scale of information culture according to the gender variable (n = 85)

Dimensions of psychological empowerment	Category	No.	Mean	Standard deviation	t	Sig(tailed-2)

Meaning	Master	57	30.05	6.30	1.210	Insig.
	Doctoral	28	31.60	3.58		
Efficiency	Master	57	22.98	5.86	2.473	Sig. at 0.05
	Doctoral	28	25.36	2.98		
Interdependence and good behavior	Master	57	24.19	5.65	0.708	Insig.
	Doctoral	28	25.04	3.93		
Influence	Master	57	23.23	5.44	0.500	Insig.
	Doctoral	28	23.68	2.86		
Total	Master	57	100.45	21.59	1.189	Insig.
	Doctoral	28	105.68	12.13		

Table 20 shows that there were no statistically significant differences between the mean scores of the sample members on the psychological empowerment scale in the total score and dimensions (meaning - independence and good behavior - vulnerability) due to the program variable. The values of t were (1.210 - 0.708 - 1.189) respectively. However, there were statistically significant differences attributable to the program in the dimension of efficiency at (0.05) in favor of those enrolled in the doctoral program. This result means that those registered for a Ph.D. are more efficient than those for a master's. This result indicates that the third hypothesis is partially accepted. This result seems logical given that the male and female doctoral students are more mature, efficient and more experienced than those enrolled in the master's program. Doctoral students have a sense of self-confidence and their abilities and capabilities to organize and manage their time effectively to accomplish their doctoral research tasks to achieve their goals more than master's students. This result confirms that there were statistically significant differences between doctoral students and master's students in psychological empowerment in favor of doctoral students.

Recommendations

In light of the results of the current research, the following recommendations were suggested:

-The necessity of enhancing the information culture skills of postgraduate students.

-The necessity of strengthening the feeling of psychological empowerment among university students and postgraduate students.

-Holding training courses to educate university students about the importance of information culture and its positive relationship to psychological empowerment.

-Working to promote the dissemination of information culture among university students to encourage them to pursue lifelong education.

-Educating university students about the importance of psychological empowerment to enhance their self-confidence and ability to make appropriate decisions in their scientific and practical lives.

-Providing various programs on information culture and its role in solving problems and strengthening the sense of psychological empowerment for students in secondary and university education.

-Studying the effectiveness of a counseling program for developing psychological empowerment among students in the various stages of university education.

References

1. Abu Ras, I. S., & Kalaldeh, A. M. (2016). Information awareness and its impact on the information society. The Jordanian Journal of Libraries and Information, 51(4).
2. Aghaei, N., & Savari, M. (2014).The relationship between psychological empowerment and professional commitment of selected physical education teachers in khuzestan province. Iran. European Journal of Experimental Biology, 4(4), 147 -155.
3. Al-Dahamsheh, S. A. M. (2019). Psychological empowerment and its relationship to perceived self-efficacy and

achievement motivation. Journal of Legal and Political Sciences, 19(1), 387-414.
4. Al-Hamza, M., & Al-Balkhiri, R. (2020). The relationship between information culture and media education: complementarity or dissonance. Journal of Ibn Rushd University in Holland, (40), 135-159.
5. Al-Majdalawi, M. Y. (2020). Attitudes of Al-Aqsa University students towards practicing recreational activities and their relationship to emotional balance and psychological empowerment. Journal of the Islamic University of Educational and Psychological Studies, 28(6), 255 - 288.
6. Al-Nawajha, Z. A. (2016). Psychological empowerment and life orientation among a sample of primary school teachers. Al-Quds Open University Journal for Educational and Psychological Research and Studies, 4(15), 283-315.
7. Al-Saadi, R. A. (2018). Psychological empowerment and its relationship to self-awareness among a sample of social workers in the Ministry of Social Development in Palestine. Journal of Educational and Psychological Sciences, 19(4), 425-456.
8. Al-Shehri, M. A., & Al-Zuhri, S. S. (2015). Information culture among medical students at King Saud University: a descriptive study [Master's Thesis]. College of Arts, King Saud University, Saudi Arabia.
9. Al-Sherida, M. A., & Abdul Latif, M. S. M. (2018). Psychological empowerment and its relationship to creative teaching skills among teachers in Wadi Al-Dawasir Governorate. The Scientific Journal of the Faculty of Education, 34(4), 295 - 333.
10. Al-Sulami, F. F. (2007). Information awareness in the academic community: an applied study on postgraduate students at King Abdulaziz University [Master's thesis]. King Abdulaziz University.
11. Al-Zayyat, F. M. (2015). A training program based on discriminatory critical thinking skills to develop informational awareness among graduate students. Journal of Arab Studies in Education and Psychology, (62).
12. Ambad, S., Nabila, A., & Bahron, A. (2012). Psychological Empowerment: The influence on Organizational commitment among Employees in the construction sector. The Journal of Global Business Management, 8(2).
13. Barakat, Z. (2015). Competencies of information awareness among students of Al-Quds Open University in Tulkarm Educational District, according to international standards. Al-Quds Open University Journal for Research and Studies, 28(2), 12-33.
14. Bel-Abbas, A., & Rakik, N. (2016). Informational awareness and information culture among university students: a comparison between students of social sciences and students of natural sciences - a field study at Mohamed Boudiaf University in M'sila. Journal of human and social science generation.
15. Chaing, C., & Hsieh, T. (2012). The impact of perceived organizational support and psychological empowerment on job performance: The mediating effects of organizational citizenship behavior. International Journal of Hospitality Management, 31(1), 180 -190.
16. Hebworth, M. (2009). A study of undergraduate information literacy and skills. The inclusion of information literacy and skills in the undergraduate curriculum. In: IFLA Council and General Conference, Bangkok, Thailand, August 20–August 28 1999 (IFLA, The Hague, 1999). Available at: http://www.ifla.org/IV/ifla65/papers/107–124e.htm
17. Huang, J. (2017). The relationship between employee psychological empowerment and proactive behavior: self-efficacy as mediator. Social Behavior and Personality: an international journal, 45(7), 1157-1166.
18. Khalifa, M. E., & Shehab, L. M. (2015). The relative contribution of the strategic management of human resources to the psychological empowerment and emotional commitment of teachers. Journal of Educational and Social Studies, 21(3), 411-484.
19. Madadha, A. N. (2018). Measuring the level of information awareness in Jordanian public universities: an empirical study. The Arab Journal of Archives, Documentation and Information, 22(43), 365-403.
20. Mustafa, M. N., & Taha, M. A. (2015). Self-advocacy and female students' perceptions of fair classes as predictive variables of university students'

psychological empowerment. Journal of the College of Education, 2(162), 11-82.
21. Rabah, F. (2017). Information culture in intellectual production: a bibliometric study. International Journal of Library and Information Sciences, 4(1), 269-279.
22. Radad, A. M. B. (2019). The information culture of STEM students in Egypt and the role of the educational system in those schools in promoting it: A field study. International Journal of Library and Information Sciences, 6(2), 239-294.
23. Schroeder, R., & Cahoy, E. (2010).Valuing information literacy: Affective learning the ACRL standards. Portal Libraries and Academy, 10(2), 127-146.
24. Shady, S. (2018). Information Awareness Standards in America (B) Canada and B (Manitoba): A Comparative study between the American (Nebraska State) and Canadian (Manitoba State) standards of Information Literacy. Journal Arab World Research Source, (51), 1 - 16.
25. Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. Academy of Management Journal. 38(5), 1442 - 1465.
26. Walton, G., & Mark, H. (2013). Using assignment data to analyse a blended information Literacy intervention: A quantitative approach. Journal of Librarianship and information Science, 45(1), 153 - 163.
27. Zhu, W., Sosik, J. J., Riggio, R. E., & Yang, B. (2012). Relationships between transformational and active transactional leadership and followers' organizational identification: The role of psychological empowerment. Journal of Behavioral and Applied Management, 13(3), 168-212.