

## Influence of Psychological Capital on Nursing Students Engagement

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### Abstract

**Background:** faculty students as a part of the community has a dual role as young people psychological capital is a concept that focused on person's positive psychological condition which has an great impact in students' academic performance, achievement and engagement. **Aim of the study:** it aimed to assess the influence of psychological capital on nursing student engagement **Research design:** A descriptive correlational design was used to carry out this study. **Setting:** The study was conducted at Faculty of Nursing Ain Shams University. **Subjects:** 284 out from 448 nursing student. **Tools:** Data were collected by using Psychological Capital Questionnaire (PCQ) and National Survey of Student Engagement (NSSE). **Results:** 50.7% of Nursing students' had a moderate level of psychological capital, considering the hope is highest dimension and more than half of them had high engagement level considering the experiences with faculty had the highest domain. **Conclusion:** There was a highly statistically significant influence of psychological capital on nursing student engagement. **Recommendations:** Provide supportive and positive academic environment for nursing student. Building mutual relationships between faculty members and their students to enhance students sharing in youth care activities.

**Keywords:** Nursing Student engagement , psychological capital.

### Introduction

The core goal of higher education is to develop human capital that represents distinctive competencies, knowledge, abilities, and ultimately a profound competitive advantage. Improving insufficient performances, identifying and building up students' various domains of deficiencies, and implementing generic learning skills have always been the primary striving mission of universities. Although the tools of positive psychology can be useful for maximizing college student learning and development (Savaand Paloş, 2020).

PsyCap is defined as "An individual's positive psychological state of development that is characterized by: having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; making a positive attribution (optimism) about succeeding now and in the future; persevering towards goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and when beset by

problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success (Luthans, et al., 2017).

Engagement is a complex term that emphasises students' various patterns in motivation, cognition, and behaviour. Researchers have investigated the construct extensively in the last seven decades, and Students' investment in and commitment to learning, belonging and identification at school, and participation in the institution environment and initiation of activities to achieve an outcome. And either defined as Students' psychological effort and investment toward learning, understanding, or mastering the skills, crafts, or knowledge that the schoolwork is intended to promote (Bond et al, 2020).

Students' engagement is defined as that students are involved and connected to the college, peers, college staff and classes and interested in their learning. Students' engagement refers to how involved or interested students appear to be in learning

and how they are connected in classes, college and with peers (Molinillo, 2018).

PsyCap has been studied in relation to various desirable students' outcome such as academic achievement and student engagement, Student engagement refers to the quality of effort students devote to educationally purposeful activities that contribute directly to desired outcomes. Engagement is a broad phenomenon that encompasses relationship between students and institutions. optimism is positively associated with academic performance (a kind of behavioral engagement). People with high level of optimism have positive outlook and expectations of positive outcome enhances their willingness to put more efforts in academic activities (Onivehu, 2020).

### **Significance of the Study**

The researcher noticed that nursing students are exposed to extra effort during studying in the college due to long study day which include practicing hours and also include many academic tasks such as conducting research, writing records, attending classes, reciting in class, problem solving as well as social relations as interacting effectively with peers, reaching out to mentors and empowering the personal potential are only some of the responsibilities that these students are expected to complete, in order to face and overcome these challenges.

The student who have high in hope and resilience are more likely to be adaptive to change, creative, and able to coping with stressful academic life . will be able to engage have consistently been linked with various desirable outcomes such as high quality of learning and increased academic success (Morris,2016).

### **Aim of the Study:**

The aim of the study was aimed to assess the influence of psychological capital on nursing student engagement.

### **Research Hypothesis:**

There is an influence of psychological capital on nursing student engagement.

### **Subjects and Methods**

#### **1. Research design**

A descriptive correlational design was used in this study.

#### **2. The study setting:**

This study was conducted at Faculty of Nursing-Ain Shams University. It contains seven scientific departments namely, Medical Surgical Nursing department (I, II), critical nursing department, Maternity and gynecology nursing department, Pediatric Nursing department, Community Health Nursing department, Psychiatric and Mental Health Nursing department and Nursing Administration Department.

#### **3. Subjects of the study:**

The subjects for the study included 284 out from (448) nurse students who enrolled in first and fourth scholar year during academic year (2019-2020) the selection was done by using simple random sampling technique.

#### **- First group: first year students:**

One hundred fifty (150) of nursing students out of 242 was eligible to participate in the study.

#### **-Second group: Fourth year students:**

One hundred thirty-four (134) of nursing students out of 202 was eligible to participate in the study.

#### **4. Tools of data collection:**

The data for this study was collected by two tools namely Psycho logical Capital Questionnaire (PCQ) and National Survey of Student Engagement:

#### **First tool: Psychological Capital Questionnaire (PCQ):**

It aimed to assessing student psychological capital among nursing students, It developed by (Luthans and Avolio, 2007) and modified by the researcher. It consists of two parts:

**Part I:** personal characteristics: This part focus on collecting data pertaining demographic characteristics of nursing

students including age, gender, marital status, residence place, educational qualification before college, academic year, study course, membership of a college youth care activities, hobbies and student join the faculty by choice .

#### **Part II:**

This part consists of 24 items which classified into four subscales: Hope(6 Items), Self Efficacy(6 Items), Resilience(6 Items), Optimism(6 Items).

#### **Scoring system:**

Responses of participants were measured on a 5 points likert scale ranged from extremely agree, agree, somewhat agree, disagree, and extremely disagree. Extremely agree was scored as “5”, while extremely disagree was scored as “1”. The negative words got reversed score. All items are summed up and a mean score is calculated. Study subjects had low psychological capital if total score was less than 60%. While it is considered moderate if score was ranged from 60-75% and it is considered high if total score was more than 75% (Metwaley and Ahmed and Ahmed, 2020)

#### **Second tool: National Survey of Student Engagement:**

It aimed to assessing nursing student engagement level, it developed by (National Survey of Student Engagement, 2018) and modified by the researcher. It consists of 47 items which classified into four subscales it as Academic challenge(9 Items), Learning with Peers(17 Items), Experiences with Faculty(13 Items), Campus Environment(8 Items).

#### **❖ Scoring system:**

The items in the student engagement questionnaire were scored on a 4 points likert scale ranged from Very little, Some, Quite a bit, and Very much. Very much was scored as “4”, while Very little was scored as “1”. Other dimensions ranged from Never, Sometimes, Often, Always. Always was scored as “4”, while Never was scored as “1”.For each

dimension and sub dimension and for the whole scale, the items were summed-up and the total divided by the number of the items for giving mean scores. Study subjects had low engagement if total score was less than 25%. While it is considered moderate if score was ranged from 25-75% and it is considered high if total score was more than 75% (Appleton, Christenson, Kim and Reschly, 2017).

#### **Tool Validity:**

Validity for preliminary form of the questionnaire was presented to a jury group for face and content validation. The jury group consisted of five experts in the field of nursing administration and mental health nursing departments affiliated to Ain Shams University (Two Assistant professors from nursing administration department), (Three professors from psychiatric mental health nursing department). The process involved their general or overall opinion about the tools of data collection.

Each tool was assessed for its clarity, Comprehensiveness, Simplicity, understanding and applicability. According to the jury opinions modifications as rephrasing and adding or omission was performed by researcher.

**Tool Reliability:** Reliability of first tool (PCQ) Tool of data collection were examined through assessing their internal consistency by cronbach alpha. (0.82).

-Reliability of second tool(NSSE) Tools of data collection were examined through assessing their internal consistency by cronbach alpha. (0.923)

#### **Administrative design:**

Before starting on the study, letters were issued from the Dean of Faculty of Nursing, at Ain Shams University to the head of each scientific department, the letter explained the aim of the study to facilitate data collection phase. The researcher explained the importance of the study and the implication of expected results for the study subjects.

#### **Field work:**

The fieldwork of the study took two months started in the beginning of

September and completed at the end of October 2020. The researcher arranged with head of the scientific department and nursing course coordinators of each grade for determining the suitable time to collect the data. The researcher introduces herself to nurse students in the classroom then explain the aim and components of the questionnaire sheet. The researcher divided each grade into groups to collect tool in their classrooms or during break time. Data was collected for two weeks. The researcher checked each filled questionnaire sheet to ensure its completion.

### Results:

**Table (1):** It is evident that the Shows that the personal characteristics of the studied nursing students, as regards to age more than half of them (50.7%) were less than 20 years. Related to gender and marital status, (69.7% and 90.5%) of them were females and single, respectively. Also, more than half (52.5%) of study sample were from urban area more than two-thirds of them (68.7%) have hobbies. Likewise, less than half of study subjects (44%) entry to the college based on their desire and academic score.

**Table (2):** Displays that more than half (56.3% and 54.6%) of the studied nursing students had high level regarding to hope and self-efficacy, respectively. While, around half (48.2% and 51.1%) of them had moderate level regarding to resilience and optimism, respectively.

**Figure (1):** Demonstrates that slightly more than half of the studied nursing students (50.7%) had moderate psychological capital level. Also, more than two-fifth of them (43.7%) had high psychological capital level.

**Table (3)** Illustrates that more than half (56.3% and 63.7%) of the studied nursing students had high engagement level regarding learning with peers and experiences with faculty, respectively. While, more than half (53.2% and 58.1%) of them had moderate engagement level regarding academic challenge and campus environment, respectively.

**Figure (2):** As clarified in figure (2), more than half (51.8%) of studied nursing students had high engagement level. Also, more than two fifth of them (44.3%) had moderate engagement level.

**Table(4):** Demonstrates the relation between the nurse students psychological Capital and their personal characteristics shows that a highly statistically significant relation between nursing students' psychological capital levels with their personal characteristics including age, gender, academic year, residence type, have a hobbies the students practice and base to entry into the college.

**Table (5):** Shows there was highly statistically significant relations between nursing student engagement levels with their personal characteristics including age, gender, residence type, academic year and entry to the college based on academic score.

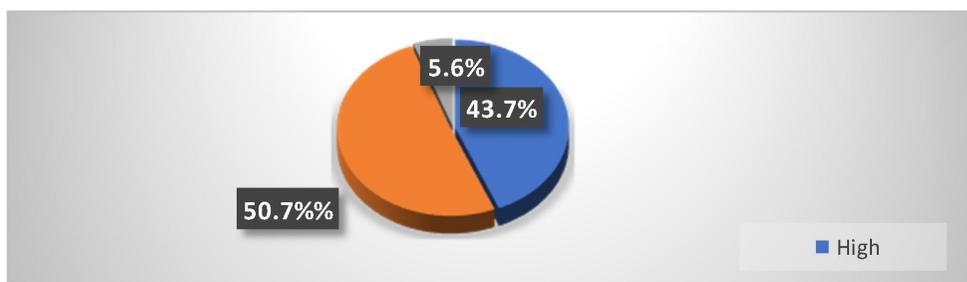
**Table (6):** Shows was correlations between total nursing students psychological capital levels and their total engagement levels, that there were highly statistically significant positive correlation total nursing students psychological capital levels and their total engagement levels( $R=0.639^{**}$ ).

**Table(1):** Number and percentage distribution of the studied nursing students according to their personal characteristics (n=284).

Items	N	%
<b>Age (year)</b>		
< 20	144	50.7
20-22	76	26.8
> 22	64	22.5
<b>Mean SD</b>	<b>20.43± 1.64</b>	
<b>Gender</b>		
male	86	30.3
Female	198	69.7
<b>Marital status</b>		
Single	257	90.5
Married	27	9.5
<b>Educational qualification before college</b>		
Secondary education	259	91.2
Technical nursing institute	25	8.8
<b>Academic year</b>		
1st year	150	52.8
4th year	134	47.2
<b>A semester for fourth year students (n=134)</b>		
Mental Health Nursing	67	50
Community Health Nursing	67	50
<b>Residence place</b>		
Urban	149	52.5
Rural	135	47.5
<b>Membership of a college youth care activities</b>		
Yes	97	34.2
No	187	65.8
<b>Have any hobbies that you practice</b>		
Yes	195	68.7
No	89	31.3
<b>Entry to the college based on</b>		
Desire	62	21.8
Academic score	97	34.2
Both together	125	44

**Table (2):** Nursing students' psycho logical capital levels according to psycho logical capital domains (n=284).

Domains of psycho logical capital	Nursing students' psycho logical capital levels					
	High >75 %		Moderate 60-75%		Low <60 %	
	N	%	N	%	N	%
Hope	160	56.3	113	39.8	11	3.9
Self-efficacy	155	54.6	107	37.7	22	7.7
Resilience	114	40.1	137	48.2	33	11.6
Optimism	118	41.5	145	51.1	21	7.4

**Figure (1):** Total psycho logical capital level among nursing students (n=284).**Table (3):** Nursing students' engagement levels according to engagement level domains (n=284).

Domains of student engagement	High >75		Moderate 25-75%		Low < 25%	
	N	%	N	%	N	%
Academic challenge	122	43	151	53.2	11	3.9
Learning with Peers	160	56.3	113	39.8	11	3.9
Experiences with Faculty	181	63.7	92	32.4	11	3.9
Campus Environment	114	40.1	165	58.1	5	1.8

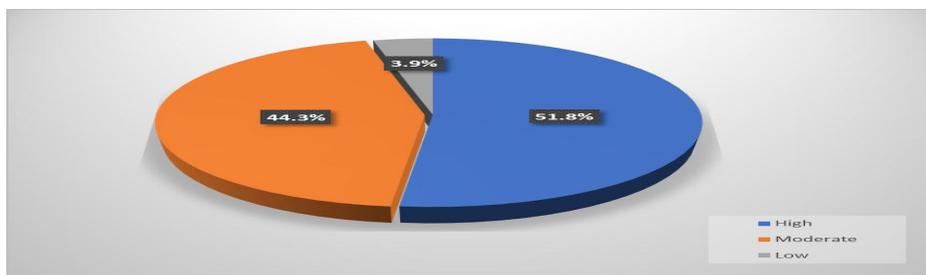


Figure (2): Total engagement among nursing students (n=284).

Table (4): Relation between Total psychological capital and its relation with students personal characteristics.

Items	Total psycho logical capital						X2	P-Value	
	High (n=124)		Moderate (n=144)		Low (n=16)				
	N	%	N	%	N	%			
Age (year)	< 20	45	36.3	94	65.3	5	31.3	38.42	.000**
	20-22	46	37.1	29	20.1	1	6.2		
	> 22	33	26.6	21	14.6	10	62.5		
Gender	Male	34	27.4	52	36.1	0	0.0	9.749	.008**
	Female	90	72.6	92	63.9	16	100		
Marital status	Single	112	90.3	129	89.6	16	100	1.824	0.402
	Married	12	9.7	15	10.4	0	0.0		
Educational qualification before college	Secondary education	108	87.1	136	94.4	15	93.8	4.618	.099
	Technical nursing institute	16	12.9	8	5.6	1	6.2		
Academic year	1 <sup>st</sup> year	48	38.7	96	66.7	6	37.5	22.49	.000**
	4 <sup>th</sup> year	76	61.3	48	33.3	10	62.5		
Residence place	Urban	52	41.9	87	60.4	10	62.5	9.810	.007**
	Rural	72	58.1	57	39.6	6	37.5		
Membership of a college youth care activities	Yes	40	32.3	52	36.1	5	31.3	.503	.777
	No	84	67.7	92	63.9	11	68.7		
Have any hobbies that you practice	Yes	91	73.4	98	68.1	6	37.5	8.532	.014*
	No	33	26.6	46	31.9	10	62.5		
Entry to the college based on	Desire	34	27.4	28	19.4	0	0.0	13.25	.010*
	Academic score	40	32.3	46	32	11	68.7		
	Both together	50	40.3	70	48.6	5	31.3		

**Table (5):** Relation between total nursing student engagement levels with their personal characteristics(n=284).

Items	Total engagement						X2	P-Value	
	High (n=147)		Moderate (n=126)		Low (n=11)				
	N	%	N	%	N	%			
Age (year)	< 20	59	40.1	80	63.5	5	45.5	18.99	.001**
	20-22	50	34	25	19.8	1	9.1		
	> 22	38	25.9	21	16.7	5	45.5		
Gender	Male	18	12.2	68	54	0	0.0	60.91	.000**
	Female	129	87.8	58	46	11	100		
	Rural	85	57.8	44	34.9	6	54.5		
Marital status	Single	131	89.1	115	91.3	11	100	1.568	.457
	Married	16	10.9	11	8.7	0	0.0		
Educational qualification before college	Secondary education	133	90.5	116	92.1	10	90.9	.214	.898
	Technical nursing institute	14	9.5	10	7.9	1	9.1		
Academic year	1 <sup>st</sup> year	60	40.8	84	66.7	6	54.5	18.20	.000**
	4 <sup>th</sup> year	87	59.2	42	33.3	5	45.5		
Residence place	Urban	62	42.2	82	65.1	5	45.5	14.49	.001**
	Rural	85	57.8	44	34.9	6	54.5		
Membership of a college youth care activities	Yes	51	34.7	46	36.5	0	0.0	6.035	.049
	No	96	65.3	80	63.5	11	100		
Have any hobbies that you practice	Yes	102	69.4	87	69	6	54.5	1.063	.588
	No	45	30.6	39	31	5	45.5		
Entry to the college based on	Desire	39	26.5	23	18.3	0	0.0	20.68	.000**
	Academic score	33	22.5	58	46	6	54.5		
	Both together	75	51	45	35.7	5	45.5		

**Table (6):** Correlation between total nursing students' psycho logical capital levels and their total engagement levels.

Items	Total engagement
Total psycho logical capital	r= 0.639**

## Discussion

Psychological capital focuses on strengths within individuals and can be seen as a personal resource with the ability to enhance an students success within a challenging and uncertain academic environment, PsyCap seems to play a large role in predicting academic performance, satisfaction, and student engagement to their faculties (Slåtten, 2021).

Students' with high psychological capital have positive impact on their academic performance such as engagement that's lead to increased quality of learning and personal achievement measured by academic performance and the student

persistence, improvements in desirable outcomes such as general abilities, critical thinking and students' satisfaction, in addition consistently shown correlations between psychological capital and student's engagement (Onivehu, 2020).

Therefore, the present study aimed to assess the influence of psychological capital on nursing student engagement.

Also, the level of psychological capital was higher among students joining the college according to their wishes this might be due to Also, there is a statistically significant relations between students' psycho logical capital levels with their

personal characteristics as regard to have hobbies, this might be attributed hobbies affect on student personality such as become more self-confident and resilient this causes had a significant difference on student personality and their positively effect on students psychological capital. That their practice and entry to the college based on their wishes, this might be attributed to nursing students who choose the faculty on personal desire might have more interest to study the program and the students.

These result was agreed with the study achieved by *Sweet and Swayze, (2020)*, who conducted that academic Psychological Capital is a Novel Approach to Freshmen Retention and found that age, and academic year had a significant difference on nursing students' psychological capital.

Regarding levels of total psychological capital among nurse students, the result of present study demonstrated that half of the studied nursing students had moderate level of psychological capital. Also, more than two-fifth of studied sample had high level of psychological capital. From the researcher point of view the psychological capital is a basic instinct can be developed over the years, every person have psychological capital but with different levels.

These results in the same line with *Sweet and Swayze, (2020)* who conducted that academic Psychological Capital is a Novel Approach to Freshmen Retention and found that the majority of studied samples had moderate level of psychological capital.

Regarding psychological capital dimensions among nurse students, the result of study demonstrated that more than half of the studied nursing students had high level regarding to hope and self-efficacy dimensions, respectively.

This finding may be attributed to the nurse students with high hope using their willpower and pathways to attain one's goal and use their own psychological capital help to coping effectively with the challenges they encounter others struggle to adjust to the peculiarities and requirements of the academic environment.

Students with a high level of self-efficacy will increase their confidence in their capacities to identify, meet, and solve complex problems related their studies. that PsyCap might play a critical role in the development of students personality.

In the same way, in the study carried out by (*King and Caleon, 2020*). Who assess the School psychological capital: Instrument development, validation, and prediction and found that majority of nursing students had high level regarding self efficacy.

Regarding levels of total engagement among nurse students the present study results revealed that more than half of nursing students had high level of engagement. Also, more than two-fifth of studied sample had moderate engagement level.

From researcher point of view possible clarification of these outcomes might due to nursing students continuously received feedback, support and academic guidance from faculty staff, and worked with other students on assignments or projects and so on; all of these issues lead to enhancement and maintenance of student engagement with their college.

These finding on the disagreement, study conducted by *Mohamed (2021)* in the Egypt to assess relationship between nursing students incivility and engagement in Faculty of Nursing at El Fayoum University found majority of studied sample had moderate level of engagement.

Regarding engagement domains among nurse students the present study results revealed that nursing students had high level of engagement regarding to learning with peers and experience with the faculty. Possible clarification of these outcomes might due to that educators focus on students' time on task and energy which is devoted to the learning process.

Student engagement within learning is essential because that leads to sustained interaction and practice, also coaching, instruction and feedback become important to ensure that students develop good habits and increase the proficiency and competence which results in motivation to engage. Further generating a cycle of engagement and developing competence that improved students' achievement and success.

These finding on the disagreement, a study done by *Winkler (2020)* carried out the study to Evaluating utility of the National Survey of Student Engagement subscores for institutional assessment in higher education found majority of studied sample high engagement level toward academic challenge domain.

Regarding the relationship between personal characteristics of nurse students and psychological capital, the current study presented that there was a highly statistically significant relation between psychological capital and student age, academic year, join the college according to their wishes.

These results could be due to the level of psychological capital were higher among students with high age and the fourth academic year because they were familiar with the policies, rules, and had more experiences of faculty environment and become more respectful for their faculty staff and other students compared with that first academic year.

Also, the level of psychological capital was higher among students joining the college according to their wishes this might be due to Also, there is a statistically significant relations between students' psychological capital levels with their personal characteristics as regard to have hobbies, this might be attributed hobbies affect on student personality such as become more self confident and resilient this causes had a significant difference on student personality and their positively effect on students psychological capital. that their practice and entry to the college based on their wishes, this might be attributed to nursing students who choose the faculty on personal desire might have more interest to study the program and the students.

These result was agreed with the study achieved by *Sweet&Swayze,(2020)*, who conducted that academic Psychological Capital is a Novel Approach to Freshmen Retention and found that age, and academic year had a significant difference on nursing students' psychological capital.

In relation between personal characteristics of nurse students and engagement, the present study demonstrates that there were highly statistically significant relation between total students engagement with age, academic year, join the college according to their wishes,, and have hobbies.

From researcher point of view the level of engagement was higher among students with more age, when age increases the engagement levels also increase, when students' ages increase more they engage more in educationally purposeful activities than younger students because students have better time management and study habits and are more self-directed, hence they might be more engaged in their studies and succeed. Also older nursing students

have a higher level of academic engagement consistent with those that are more certain of their goals, committed and work harder.

Also, engagement was higher among nursing students joining the college according to their wishes, this might be attributed to nursing students who choose the faculty on personal desire might have more interest to study the courses offered throughout the years of study and had more engagement in the academic environment, and have hobbies also had a significant difference on nursing students engagement.

These results agreed with the study achieved *Mohamed (2021)* in the Egypt to assess relationship between nursing students incivility and engagement in faculty of nursing at el fayoum university. and found that there was a highly statistically significant relation between total nursing students engagement of the studied sample and their place of residence and have hobbies.

The current study revealed, based on correlations between total nursing students psychological capital levels and their total engagement levels, that there were highly statistically significant positive correlation total nursing students psychological capital levels and their total engagement levels.

These results agreed with *Prihatsanti et al. (2020)*, who carried out a study in Indonesia to assess "I'm A Superhero": Increasing Students' Psychological Capital through Story telling and stated that there was a statistically significant positive correlation total nursing students psychological capital levels and their total engagement levels.

### **Conclusion**

In the light of the present study findings, it could be concluded that majority of studied nursing students had

moderate psychological capital level and highest psychological capital domains regarding hope and self efficacy respectively. While, majority of studied nursing students had high engagement level and highest engagement domains was learning with peers and experience with faculty domains and there was a highly statistically significant positive correlation between total nursing students' psychological capital and their total engagement. This findings answer the research hypothesis which stated that is There is an influence of psychological capital on nursing student engagement.

### **Recommendation**

**Based on the study findings, the following recommendations are proposed:**

- Provide supportive and positive academic environment for nursing
- Students' to improve their psychological capital and engagement.
- Use nursing students opinions and suggestions concerning engagement to make decisions about academic and extracurricular activities, also be used as indicators of success to explore areas which need improvement.
- Conduct periodical counseling sessions to help students verbalize their emotions about their academic environment and respect students' opinions, concerns and suggestions.

### **References**

- Appleton, J., Christenson, S., Kim, D. and Reschly, A. (2017):** Student Engagement Instrument "SEI "for the School Health Assessment and Performance Evaluation System" SHAPE ",1-3. *Studies*, 21(2), 141-149.
- Bond, M., Buntins, K., Bedenlier, S., and Kerres, M., (2020):** Mapping research in student engagement and educational technology in higher education: a systematic evidence map *International Journal of Educational Technology in Higher Education*

- <https://doi.org/10.1186/s41239-019-0176-8>.
- Cimen, I., and Ozgan, H. (2018):** Contributing and damaging factors related to the psychological capital of teachers: A qualitative analysis. *Issues in Educational Research*, 28(2), 308-328.
- King, R., and Caleon, I. (2020):** School psychological capital: Instrument development, validation, and prediction. *Child Indicators Research*, 1–27.
- Li, Y. (2018):** Building well-being among university teachers: The roles of psychological capital and meaning in life. *Eur. J. Work Organ. Psychol.* 27, 594–602. [CrossRef]
- Luthans F., Avey J. B., Avolio B. J., Peterson S. (2007):** The development and resulting performance impact of positive psychological capital. *Hum. Res. Dev. Q.* 21,41-66. [Retrieved From:<http://Sgo.Sagepub.Com/Content/5/1/2158244015573169>].
- Luthans F., Youssef-Morgan C. M. (2017):** Psychological capital: an evidence-based positive approach. *Annu. Rev. Clin. Psychol.Org. Behav.* [CrossRef] [Google Scholar].
- National Survey of Student Engagement (2018):** About NSSE. Retrieved from <http://nsse.iub.edu/>
- Prihatsanti, U and Zenita, I, and Redasari, A,P and Pendidikan, P., (2020):** “i’m a superhero”: increasing students’ psychological capital through storytelling, vol. 39, no. 1, February 2020 doi:10.21831/cp.v39i1.26139
- Sava, S. L., Virgă, D., and Paloş, R. (2020):** The role of teacher support, students’ need satisfaction, and their psychological capital in enhancing students’ self-regulated learning. *Studia Psychologica*, 62, 44–5.
- Sweet, J.,and Swayze, S. (2020):** Academic Psychological Capital: A Novel Approach to Freshmen Retention *Journal of College Student Retention: Research, Theory and Practice. Journal of Higher Education Theory and Practice*, 19(2), 129–146.
- Winkler, C,E. (2020):** Evaluating utility of the National Survey of Student Engagement subscores for institutional assessment in higher education. Retrieved from ProQuest Number: 28245177.
- Mohamed,S,S (2021):** Relationship between nursing students incivility and engagement in faculty of nursing atEl Fayoum university. Unpublished Master Thesis, Faculty of Nursing, at Ain Shams University, Pp, 2, 48.
- Molinillo, S., Aguilar-Illescas, R., Anaya-Sánchez, R., and Vallespín-Arán, M. (2018):** Exploring the impacts of interactions, social presence and emotional engagement on active collaborative learning in a social web-based environment. *Computers and Education*, 123, 41-52.
- Liran and Miller, (2017):** The Role of Psychological Capital in Academic Adjustment Among University Students. *Journal of Happiness Studies* ·DOI 10.1007/s10902-017-9933-3