Correlation of Pregnancy and Marriage with the Academic Performance for Female Students at College of Nursing in University of Mosul

Ahmed Zuhair Abd Al-Qader, MSc* Yamama Zuhir Abdulkareem, MSc** Jwan Mohammed Hassan, MSc***

ABSTRACT

Background: Education is a lifelong process that enables the continuous development of a person's capability as an individual and as a member of the society. Pregnancy can have a profound impact in the mother and child by placing limits on her education achievement and economic stability.

Objective: To determine the relationship between the pregnant and marriage with the performances of the academic for the nursing female students at the university of Mosul.

Methodology: Across- section study design was applied at college of the nursing in the University of Mosul from 15th of September up to 20th November 2021. The study sample consist of (150) Female student (Pregnant & marriage) from all study stages. A self- administered structured for constructed by used the questionnaire for collection the data. The data were analyzed by using SPSS ver.25.

Results: The majority of study sample were to marriage age between (19-21) years and constituted 45.3%. Twenty-eight percent (42) were in educational level at the third stage, while 42.7% (64) of female students were married for 4 years or more. On the other hand, 50.7% (76) of participants has one child. The current study found that there are a statistically significant (at p value <0.05) association between socio-demographic characteristics of pregnancy and marriage students with academic performances.

Conclusion: This study concluded there are significant relationships between the major variables of the sociodemographic with social problems, scientific teaching problems, economic problems, and psychological problems of the study results.

Keywords: Pregnancy, Marriage, Female students and academic performances

INTRODUCTION

Education is a lifetime procedure that assists the incessant advance of a personality's skill as an individual and as a society colleague¹. Education is vital to the improvement of general public and makes them for work and life in the world2. The outcomes of the educational of the academic performances are of purely importance the level to which a student; teachers or organization has reached their educational goals. Now; achievement of the organizations of education is dignified through academic performance or how the students encounter values usual through the organization or institution3. The developed mental skill pupils are definite confirmed through IQ tests tends for realize the extremely in settings of academic⁴. While, pregnancy students and maternity don't continuously interfere with education of school females' and they can present an original established of conditions that future effect of judgment connected for the educational of girls⁵. On the other hand; school of pregnancy females may require a thoughtful influence in the children & her mother via boundaries of insertion on her teaching accomplishment & constancy of economic; as well as influencing her to single motherhood⁶. Campaign of National avoid un-planned gestation and teenage declared that "whether the educational chance is misplaced or late; un-planned gestation brands the lifespan stiffer for this trying to accomplish the "vision or dream" of the college learning. Moreover; places the pregnancy student's jagged at a financial and educational disadvantages. Students' Pregnant are as well recognized to be often inattentive from college for causes variation which associated with gestation. The Objectives of the Study to determine the relationship between the pregnant and marriage with the academic performances for Female Nursing student in university of Mosul and to find out the relationship between the socio-demographic variables and result of the study.

METHODOLOGY

Descriptive study was designed to determine the pregnancy and marriage correlation with the Academic Performances for Female Nursing Students at Nursing College in University of Mosul, the university, the period of the study and data collection from 15th of September up to 20th November 2021. Study was conduct. The study sample was purposive sample to achieve the objects of the research,

- * Assistance Lecturer
 Nursing Education
 Clinical Nursing Science Department, College of Nursing
 University of Mosul, City of Mosul, Iraq.
 E-mail: ahmad.zuhair@uomosul.edu.iq
- ** Lecturer
 Maternity and Child Health Nursing
 University of Mosul
- *** Assistance Lecturer
 Maternity and Child Health Nursing
 University of Mosul

a target number of the sample was (150) of undergraduate students who attended the Nursing College in University of Mosul. The criteria of selecting the sample were tended to choose female student that pregnant and marriage female from all stages of the all undergraduate studying. A self- administered structured for constructed questionnaire was used to collection data. in older to collect the study information that contains five parts, the first one has the socio-demographical data such as age at marriage, stage study, marriage period, number of children, housing, number of rooms occupied by family, family quality, income of the family. The second part of this questionnaire contains five items of the social problems facing married students. The third part consists of the seven items of the academic and scientific problems. The fourth part consists of the four item of the economic problem faced by married students. Finally, the fifth part consists of the seven item of the psychological problem facing students. These items measure; three scale options never, always sometime. The validity of the questionnaire was established through panels of experts that selected to observe the questionnaire. Reliability of questionnaire assessed by internal consistency measures by using coefficient correlation method which indicates was (r = 0.88) that was significant at (p < 0.05). All the data analyzed by using SPSS Ver. 259-13.

RESULTS

Table 1 shows social and demographic characteristic of the respondents in the study. That 45.3% of the samples at age (19-21) years, 28 % of the samples at the third stage of Study stage, 42.7 % of the samples at 4 years or more of marriage period. The table 2 presents the statistical results for the social problem facing married women for marriage and pregnancy female sample. The table 3 shows the statistical results for the academic and scientific teaching the problem for the marriage and pregnancy female sample. The table 4 presents the statistical result for the economic problem faced married students for marriage and pregnancy female samples. Table 5 shows the statistical result for psychological a problem facing student for marriage and the pregnancy female sample. The table 6 presents the significant difference of demographic characteristic result correlation with four problems (Social Problems, Academic and Scientific Teaching Problems, The Economic Problems and Psychological Problems) for the samples. (Correlation is significant < 0.05 level).

Table 1: Distribution of the social and demographic characteristics of the respondents in the study

Variable	Items	Frequency	%
	16-18	33	22.0
Age at marriage	19-21	68	45.3
	22-24	49	32.7
	First	37	24.7
C4-14	Second	40	26.7
Study stage	Third	42	28.0
	Fourth	31	20.7
	Sixth month to one year	36	24.0
Marriage Period	two years to three years	50	33.4
	four years or more	64	42.7
	No child	36	30.7
Number of	1	76	50.7
children	2	25	16.7
	3-or more	3	2.0
	No	38	25.3
Number of pregnancies	Once	74	49.3
	Twice	34	22.7
	Three -or more	4	2.7

	No	114	76
Number of	Once	32	21.0
abortions	Twice	3	20.0
	Three –or more	1	7.0
	Ownership	108	72.0
Housing	Rent	42	28.0
Number of	1-2	89	59.3
rooms occupied	3-6	53	35.3
by family	More	8	5.3
T '1 1'4	Single family	44	29.3
Family quality	Multiple family	106	70.7
Financial	Less than 300 thousand dinars	70	46.7
income of the family	400-800 thousand dinars	55	36.7
	Million dinars	12	8.0
	More	6	4.0

Table 2: Distribution of the social problems facing married women students

	Items	Frequency	%
TT ' 1 1 4' '41	Never	3	2.0
Having good relations with husband and his family	Sometime	59	39.3
	Always	88	58.7
E 1 . 10 . 1	Never	11	7.3
Feels supported from the husband and his family	Sometime	49	32.7
nusband and his family	Always	90	60.0
The husband take care of children during your college	Never	57	38.0
	Sometime	46	30.7
time	Always	47	31.3
	Never	40	26.7
Feel remorse for marriage	Sometime	61	40.7
during the study period	Always	49	32.7
D : 1 1 :	Never	0	0.0
Doing housekeeping	Sometime	21	14.0
(cooking and cleaning)	Always	129	86.0
Total		150	100

Table 3: Distribution of the academic and scientific teaching problems facing married students

	Items	Frequency	%
TI : 1	Never	16	10.7
The right time to pursue your studies	Sometime	94	62.7
studies	Always	40	26.7
	Never	84	56.0
The frequent desire to postpone exam	Sometime	44	29.3
postpone exam	Always	22	14.7
TTI C 1	Never	55	36.7
The frequent absences in lectures and practical training	Sometime	66	44.0
rectures and practical training	ng Sometime 66 Always 29	19.3	
TI 6 1 : ('6 1 1	Never	41	27.3
The find your scientific level	Sometime	67	44.7
lower than your colleagues	Always	16 1 94 6 40 2 84 5 44 2 22 1 55 3 66 4 29 1 41 2 67 4 42 2 16 1 34 2 100 6 31 2	28.0
TI 1: 4 4 4: 1	Never	16	10.7
The succeed in the theoretical	Sometime	34	22.7
exams from the first attempt	Always	100	66.7
The marriage or pregnancy cause	Never	76	50.7
you to be absent from practical		31	20.7
training outside the college	Always	43	28.7

The children that can you	Never	25	16.7
reconcile their care and your	Sometime	60	40.0
study	Always	65	43.3
Total		150	100

Table 4: Distribution of the economic problems facing married students

	Items	Frequency	%
The	Never	31	20.7
The study affect household income	Sometime	50	33.3
income	Always	69	46.0
TI 1 1 1	Never	2	1.3
The husband cover your	Sehold Sometime 50 33.3 Always 69 46.6 Your Never 2 1.3 Sometime 22 14.7 Always 126 84.6 he expenses rtation Never 2 1.3 Sometime 16 10.7 Always 132 88.6 after Never 147 98.6	14.7	
personal expenses	Always	69 40 2 1. 22 14 126 84 2 1. 16 10 132 88 147 98	84.0
T1 1 1 1 4		2	1.3
The husband cover the expenses of study and transportation	Sometime	16	10.7
of study and transportation	Always	132	88.0
The additional work after	Never	147	98.0
college to cover the expenses of	Sometime	1	.7
the study	Always	2	1.3
Total		150	100

Table 5: Statistical result for psychological problems facing students

	Items	Frequency	%
The suffer from psychological	Never	42	28.0
disorders as a result of your	Sometime	65	43.3
disorders as a result of your marriage during the study The find yourself able to take responsibility for marriage The always worry about not being able to reconcile study with marital life	Always	43	28.7
TI C 1 1C 11 4 4 1	Never	5	3.3
•	Sometime	42	28.0
responsibility for marriage	Always	103	68.7
The always worry about not	Never	19	12.7
being able to reconcile study	Sometime	68	45.3
with marital life	Always	63	42.0
	Never	17	11.3
The fear of not succeeding	Sometime	55	36.7
	Always	78	52.0
The feel enemy for simulant	Never	23	15.3
	Sometime	75	50.0
Teason	Always	52	34.7
The feet and the second in the	Never	31	20.7
1 2	Sometime	61	40.7
your roles in me	Always	58	38.7
The	Never	127	84.7
The marriage during study cause fatigue	Sometime	16	10.7
cause langue	Always	7	4.7
The Total		150	100.0

Table 6: Statistical correlation of demographic characteristics with results of study

	Social Problems		Scientific		The Economic Problems		Psychological Problems	
	P.value	Sgn	P.value	Sgn	P.value	Sgn	P.value	Sgn
Age at marriage	0.000	S	0.000	S	0.039	S	0.706	NS
Study stage	0.000	S	0.000	S	0.000	S	0.000	S
Marriage Period	0.000	S	0.000	S	0.001	S	0.669	NS

Number of children	0.066	NS	0.008	S	0.000	S	0.000	S
Number of pregnancies	0.009	S	0.206	NS	0.000	S	0.000	S
Number of abortions	0.000	S	0.000	S	0.000	S	0.650	NS
Housing	0.238	NS	0.008	S	0.149	NS	0.000	S
Number of rooms occupied by family	0.003	S	0.000	S	0.000	S	0.000	S
Family quality	0.383	NS	0.095	NS	0.563	NS	0.024	S
Financial income of the family	0.005	S	0.000	S	0.000	S	0.000	S

Correlation is significant at the 0.05 level

DISCUSSION

Table 1 shows social and demographic characteristic of the respondents in the study. That 45.3% of the samples at age (19-21) years, 28% of the samples at the third stage of Study stage, 42.7% of the samples at 4 years or more of marriage period, 50.7% of the samples have one child in their family, 49.3% of samples also have one number of pregnancies. 76% of the samples do not have any number of abortions, 72% of samples have ownership housing, 59.3% of samples have (1-2) rooms that occupied by family, 70.7% of samples have multiple family quality, 46.7% of the samples have less than 300 thousand dinners income for the family.

The table 2 presents the statistical results for the social problem facing married women for marriage and pregnancy female sample. That the most of the samples having good relation with the husband and his family at always level 58.7% but 2% at never level. when putting that in line with another study found receiving provision and reinforcement; numerous students' pregnant are worried, uncomfortable and not adaptation with their condition¹⁴, the field supported from the husband and his family for most of the samples at always level 60% but 7.3% at never level, the most of samples husbands have taken care of the children during your college time at never level 38% while 31.3% at always level. The samples feel remorse for marriage during the study has the always level at 32.7% but at never level 26.7%. Lastly most of the samples doing housekeeping (cooking and the cleaning) at always level 86% but 0.0% at never level of the sample.

The table 3 shows the statistical results for the academic and scientific teaching the problem for the marriage and pregnancy female sample. That the most of samples have the right time to pursue your studies at the always level 26.7% but at never level 10.7%, the frequency desire to postpone exam for most of samples at never level 56% but at always level 14.7% of the sample while another study found the problem is that did not write the exam is didn't cover the lecture hours¹⁵, the frequently absence and lecture and practical training for most of sample at the always level 19.3% and 36.7% at a never level but when putting that in line with the previous study found that absence from class means miss lecture and tablet exams and homework; they determination probable reduction at their school and works, also they might be predictable to "catch up"16, the find for scientific level lower than the colleagues for most of samples at the always level 28% but 27.3% at never level when compared this with previous study found the problem because they missed some tablet exams and has continues assessment (CASS) for few mark¹⁵, the succeed in the theoretical exam from the first attempt for most of sample at the always level 66.7% but 10.7% at a never level,

the marriage or pregnancy that causes absent from practical training outside the college for most of samples at never level 50.7% but 28.7% at an always level while the Nigerian study said that academic performance of confirmation pupils' can influence by loss lectures at a yes level 82.3% while at a no level 17.7% le, lastly the children that can you reconcile some their care and study for most of samples at always level 43.4% but 16.7% at never level the another study said that nurses of pregnant students & persons with their academic responsibilities who require given birth miscarry to contract for the reason that; they have to sense of balance for the hours of normal working with self-care, children and getting adequate relaxation to be complete for the following day's actions less causes at a level 17.7%.

The table 4 presents the statistical result for the economic problem faced married students for marriage and pregnancy female samples. That most of the study effect household income at always level 46% but 20.7% at never level while in the another study founded that gravidity residences a students at an economical and educational dis-advantage⁷, the husband cover personal expenses for most of the samples at always level 84% while 1.3% at never level, the husband cover the expenses of the study and transportation at always level 88% but 1.3% at a never level , the additional work after college the expenses of study for most of the samples at never level 98% but 1.3% at always level while the Mpumalanga study said the nurses pupils of college has double station being together workers and undergraduate; and they are on a employees and income (PERSAL) system¹⁵.

Table 5 shows the statistical result for psychological a problem facing student for marriage and the pregnancy female sample. That most of suffering from psychological disorder as a result of marriage during study for most of the samples at always level 28.7% but at never level 28%, state that slight motherly condition may also have main impacts for academic performance of nurses' students¹⁸, the most of the find yourself able to take responsibility for marriage for most of the samples at always level 43.3% but 3.3% at a never level while another study said that members stated taking skilled of the stress of academic that effect from their letdown to fulfill their accountabilities such as nurses' students¹⁵, The always worry about not being able to reconcile study with the marital life for most of the samples at always level 42% but 12.7% at never level, showed that contact of the students to the environment of scientific education is reflected one of the most vital influences for education of nursing, in additional; it is occupied with obstructions and compression¹⁹. For student's nurse's pregnancy to suffer the obstructions and compression of the environment of the scientific education, they must need to be steady physically, emotionally, and mentally²⁰. For the reason that of some complications met in the scientific education parts, note that various undergraduate nurses left the occupation of nursing¹⁹, the fair of not succeed for most of the samples at always level 52% but 11.3% at a never level. They feel angry for simplest reason for most of the samples at always level 34.7% but at never level 15.3%. the feel unstable to multiply your roles in life for most of the samples at always level 38.7% but 20.7% at a never level of the sample, Mpumalanga study found respondents described poor of concentration, physical anxiety, manage failure with job and academic pressure during the schoolroom and scientific education places that lead to contributed of their academic experiment¹⁵, Lastly the marriage you during study cause fatigue for most of the samples at never level 84.7% but 4.7% at always level, stating that the academic performance of students' college and totally features of the student's health can impact with highly stress levels²¹.

The table 6 presents the statistical difference of demographic characteristic result and samples for the marriage and the pregnancy sample. that most of the samples have significant relationship for social problem with age at marriage, study stage, marriage period, number

of a pregnancies, number of abortions, number of room occupied by family and financial income of the family, but not significant relationship with number of children, housing and family quality. The most of the samples have significant relationship relation for academic and scientific teaching problems with age at marriage, study stage, marriage period, Number of children, number of abortions, housing, number of room occupied by family and financial income of the family, but not significant relationship with number of pregnancies and family quality. The most of the samples have significant relationship with the economic problems with age at marriage, study stage, marriage period, Number of children, number of abortions, number of room occupied by family and financial income of the family, but not significant with housing and family quality²³. The most of the samples have significant relationship relation for psychological problems with study stage, number of children, number of pregnancies, housing, number of room occupied by family, family quality and financial income of the family, but not significant relationship with age at marriage, marriage period, number of abortions and family quality. As a general the pregnancy and marriage effects on the academic performance for female nursing students but when comparing these results with Saudi study found that marriage don't effect on female academic performance²², the study agreement with another study which stated that the undergraduates married be likely to be added different in their incentives for joining college and have had skills in the life that23 extended their general attitude. Nevertheless, the study was done in Nigerian and marriage comparative taking place the academic performance of female's medical undergraduates determined that there was an important difference between married and unmarried undergraduates with more resist investigations for single¹⁹ pupils. In 2001 at British study was discovered all data of the students which graduating from all colleges of (UK) in 1993. In their analysis the pupils married both (male and female) ensure better than single students²⁵⁻²⁸. While in the Gulf region; There are slight data on this subject; nevertheless, Al-Mutairi in (2010) stated that students' married at the Arab open university²⁹⁻³¹ outdoing their single complements³²⁻³⁵.

CONCLUSION

The most of the samples are marriage at age (19-21) years, the third stage having 4 years or more of marriage period, also having one child in of one pregnancy. The result of study showed that the female sample having academic and scientific teaching problems, economic problems, and psychological problems, but not have social problems resulting from the effect pregnancy and marriage on the academic performances. There are significant relationships between the major variables of the socio-demographic with social problems, scientific teaching problems, economic problems and psychological problems of the study results.

RECOMMENDATION

The need for mass media and institutional group in society such as a school and University mass organization place of work should work leaders official and communities or good family and women to complete their studies.

Conducting study to detect marital compatibility and its relation to the academy achievement of student.

Develop a proposed program to address the problems of marriage student academically socially and psychologically.

The requesting women must organize a schedule that set out the times of her domestic work and her working hours at n University the division of work on a family members and the balance between University working hours Leisure and recreation.

The need for the husband related add members of a community to change their ideas values and attitudes toward completion women to teach and encourage them to complete their education.

ACKNOWLEDEMENT

The authors are very grateful to the University of Mosul/ College of Nursing for their provided facilities, which helped to improve the quality of this work. We would like to thank all the female students at college of nursing who agreed to participate in this study.

Authorship Contribution: All authors share equal effort contribution towards (1) substantial contributions to conception and design, acquisition, analysis and interpretation of data; (2) drafting the article and revising it critically for important intellectual content; and (3) final approval of the manuscript version to be published. Yes.

Potential Conflict of Interest: None

Competing Interest: None

Acceptance Date: 04 May 2022

REFERENCES

- 1. Effie DS. The impact of pregnancy and child care responsibilities on academic performance among school going mothers. 2011.
- Sibeko PG. The effect of pregnancy on a school girls education. Kwadlangzwa. University of Zululand (Med-dissertation). 2012.
- 3. Singh S, Samara R. Early marriage among women in developing countries. International Family Planning perspectives 1996;22(4):148-57.
- 4. Grant M, Hallman K. Pregnancy- related school dropout and school performance in Kwazulu-Natal studies in family planning 39cs). Stud Fam Plann 2006;39(4):369-92
- Pandy S, Makiwane M, Ranchord C, et al. Teenage pregnancy in South Africa with specific focus on school going learners. HSRC: Pretoria. 2009.
- 6. Duncan A. Teenage parents and their educational attainment. 2011.
- 7. Kerra M, Lee M. Human capital consequence of teenage bearing in South Africa. Population Research bureau. 2012.
- 8. Rangiah J. The experiences of pregnant teenagers about their pregnancy. Stellenbosch: stellenbosch university (Meddissertation). 2012.
- Naji AB, Ahmed MM, Younis NM. Adherence the Preventive Measure Against for COVID-19among Teachers at University of Mosul. In J Med Tox Leg Med 2021;24(3 and 4).
- Ahmed MM, Younis NM, Hussein AA. Prevalence of Tobacco use among Health Care Workers at Primary Health Care Centers in Mosul City. Pak J Med Heal Sci 2021;15(1):421-4.
- Younis NM, Ahmed MM, Dhahir NM. Prevalence of Coronavirus among Healthcare Workers. Int J Med Toxicol Leg Med 2021;24(1-2).
- 12. Ahmed MM, Younis NM, Hussein AA. Violence towards nurses staff at teaching hospitals in Mosul City. Indian J Forensic Med Toxicol 2020;14(3):2598-603.
- 13. Younis NM, Ahmed MM, Hussein AA. Nurses' knowledge, attitude and practice towards preparedness of disaster management in emergency of mosul teaching hospitals. Medico-Legal Update 2020;20(3):775-9.
- 14. Chigona A, Chetty R. Teen mothers and schooling: Lacunae and challenges. S Afr J Edu 2008;28:261-81.
- Nkosi KB, Makhene A, Matlala S. Educational challenges as experienced by pregnant students nurse at a college in Mpumalanga. Curationis 2019;42(1):e1-e7.

- Perceived effects of pregnancy on the academic performance for female nursing students in IMO state university OWERRI. Nigeria. Review by Ezenwuba Clementine O. Nigeria (MSN. Texila American University).
- 17. Tanner B. Social justice and equal treatment for pregnant women in the workplace, PhD (Law) (Unpublished), University of Johannesburg 2017;15.
- 18. Wickramasinghe ND, Horton J, Agampondi TC. Minor ailments in pregnancy are not a minor concern for pregnant women: A morbidity assessment survey in rural Sri Lanka. PLoS One 2013:8(5):e64214.
- Jamshidi N, Molazem Z, Shafir F, et al. The challenges of nursing students in the clinical learning environment: A qualitative study. Sci Wor J 2016;2016:1846178.
- Mamhute R. The educational challenges of pregnant and nursing adult learners: A case study of Morgenster Teachers' College, Master's dissertation, Stellenbosch University, Stellenbosch. 2011.
- Sharma B, Wavare R, Deshpande A, et al. A study of academic stress and its effects on vital parameters in final year students at SAIMS Medical College, Indore Madhya Predesh. Biomed Res 2011;22(3):361-5.
- Abou-Elhamd KE, Alwadaani HA, Almulhim ARS, et al. Female medical undergraduate; 'Does marriage effects the academic performance of the female medical undergraduate in a Saudi University? 2014.
- Compton JI, Cox E, Lanaan FS. Adult learners in transition. New Directions for Student Services 2006;80:114.
- Egwuatu VE, Umeora OU. A comparative study of marital status on the academic performance of the female medical undergraduate in a Nigerian university Niger. Postgrad Med J 2007;14(3):175-9.
- 25. Smith J, Naylor R. Determinants of degree performance in UK universities: a statistical analysis of the 1993 cohort. Oxford Bulletin of Economics and Statistics 2001;63(1):29-60.
- Younis NM, Mahmoud M, Ahmed A, et al. University Students' Attitude Towards E-Learning. Bahrain Med Bull 2021;43(2):460-2.
- 27. Muwfaq YN, Ahmed MM, Abdulsalam RR. Assessing Quality of Life in Palliative Care. Bahrain Med Bull 2021;43(3):594-6.
- 28. Ahmed MM, Younis NM, Dhahir NM, et al. Acceptance of Covid-19 vaccine among nursing students of Mosul University, Iraq. Rawal Med J 2022;47(2).
- 29. Al-Mutairi A. Factors Affecting Business Students' Performance in Arab Open University: The Case of Kuwait. Int J Bus Man 2010;6(5):146-55.
- 30. Thomas J, Raynor M, Al-Marzooqi A. Marital status and gender as predictors of undergraduate academic performance: A United Arab Emirates context. Learning and Teaching in Higher Education: Gulf Perspectives 2012;9(2).
- 31. Salem RO, Al-Mously N, Nabil NM, et al. Academic and sociodemographic factors influencing students' performance in a new Saudi medical school. Med Teach 2013;35(sup1):S83-9.
- 32. Younis NM. Efficacy of Health Beliefs Model-Based Intervention in Changing Substance Use Beliefs among Mosul University Students: A Randomized Controlled Trial Revis Bionatura 2022;7(2):35.
- 33. Rahman HAS, Al-Ghurairi, Younis NM, et al. Prevalence of weight gain among students of Mosul University, Iraq during quarantine. Rawal Med J 2020;47(3).
- 34. Gardy MHS, Akbay C. Academic performance of undergraduate students at Soran university in Northern Iraq. IJARET 2015;2(4):92-71
- 35. Waly AL, Maala LAM. Effectiveness of a Structured Educational Program on Teachers Knowledge regarding Child Maltreatment in Elementary School at Mosul City. Pakistan J Health Sci Medicine 2021;15(3):799-803