Website: http: jebhpme.ssu.ac.ir
EBHPME 2025; 9(2): 110-9
EISSN: 2538-4716

Evidence Based Health Policy, Management & Economics

ORIGINAL ARTICLE

The Relationship between Demographic Variables and Psychological Capital in Pregnant Women

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A B S T R A C T

Background: Pregnancy is one of the most sensitive and challenging periods in women's lives, accompanied by significant physical, psychological, and social changes that may affect mental health. Psychological capital, as a valuable internal resource, plays a critical role in empowering women to cope with the pressures of pregnancy. This study aimed to examine the relationship between components of psychological capital (self-efficacy, hope, resilience, and optimism) and demographic variables during pregnancy.

Methods: This cross-sectional study was conducted on 70 pregnant women attending health centers affiliated with Qom University of Medical Sciences. Data were collected using the McGee Psychological Capital Questionnaire, along with demographic information such as age, employment status, husband's occupation, and education. Data were analyzed using Pearson correlation, independent t-test, one-way ANOVA, and linear regression. A significance level of *P-values* <0.05 was also considered.

Results: Significant associations were found between self-efficacy and husband's age (*P-values*=0.046), women's employment (*P-values* <0.001), and planned pregnancy (*P-values* =0.048). Hope correlated positively with women's age (*P-values* =0.034), husband's age (*P-values* =0.012), employment (*P-values* <0.001), husband's job (*P-values* =0.045), and planned pregnancy (*P-values* =0.030). Resilience was associated with women's age (*P-values* =0.027), husband's age (*P-values* =0.033), satisfaction with pregnancy (*P-values* =0.027), and women's employment (*P-values* <0.001). Optimism correlated significantly with employment (*P-values* =0.004), husband's job (*P-values* =0.028), and planned pregnancy (*P-values* =0.013). Overall psychological capital was significantly higher in employed women (*P-values* <0.001) and those with planned pregnancies (*P-values*=0.020). Linear regression showed that only maternal employment had a significant positive effect on psychological capital (β=0.38, *P-values* =0.002).

Conclusion: The findings highlight the importance of social support and psychological factors in promoting maternal mental health. Social and individual factors such as employment and planned pregnancy play a vital role in strengthening women's psychological resources during pregnancy, potentially improving quality of life and reducing stress.

Keywords: Pregnant woman, Psychological capital, Demographics, Positive psychology

Introduction

Pregnancy is described as a critical and sensitive stage in a woman's life. Research indicates that this transformative period is accompanied by extensive and complex changes. For example, Davis et al. have noted that "the prenatal period is a time of rapid growth, bringing numerous psychological and physiological changes for both mother and fetus" (1). Similarly, Chauhan et al. (2)

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[DOI: 10.18502/jebhpme.v9i2.20204]

have emphasized that pregnancy can involve major hormonal changes, increasing the likelihood of mental health problems and making it a "high-risk period" for psychological well-being.

The diverse physical and psychological pressures of pregnancy place women at greater risk for psychological disorders compared to the general population. For instance, the prevalence of antenatal depression in the United States is nearly twice that of non-pregnant women (about 20% vs. 10%) (1). Global studies show that the prevalence of antenatal depression varies across countries. A systematic review reported rates between 7% and 20% in developed countries (3), while in low- and middle-income countries, rates are higher—approximately one-quarter of pregnant women experience depression (4). The prevalence of anxiety disorders during pregnancy averages 21.1% (5). These statistics clearly indicate that pregnancy can be stressful and challenging enough to act as a strong trigger for the onset or exacerbation of mental disorders in susceptible women (6).

One important and valuable psychological protective resource that can potentially enhance individuals' capacity to cope effectively with life's challenges is the concept of psychological capital (7). This relatively new construct in positive psychology was first introduced by Fred Luthans in 2002 (8) and refers to a unique, positive psychological state that fosters growth, flourishing, and improved performance across various life domains.

Psychological capital generally comprises four core components: self-efficacy, optimism, hope, and resilience (9). Self-efficacy refers to an individual's belief and confidence in their abilities and skills to plan and achieve set goals and increase effort and persistence when facing obstacles. Optimism involves a positive and constructive outlook and a firm belief in one's potential to achieve success in the present and future. Hope serves as a positive motivational force that enables goal attainment, while resilience allows individuals to endure difficulties and stressful conditions, effectively overcome problems, and return to their baseline state after adverse events (9).

Psychological capital not only acts as a protective shield against stress, anxiety, and loneliness but is also a key factor in maintaining and enhancing physical and mental health (10); it is directly associated with higher life satisfaction (11).

In the context of pregnancy, psychological capital plays a crucial role in reducing the psychological strain of adapting to the changes of this period. Research has shown that women with higher levels of psychological capital score lower on anxiety scales, experience less fear and worry about pregnancy, and maintain a more positive and optimistic outlook for both their own future and their child's (12).

Previous studies have identified associations between demographic characteristics and psychological capital (13–15). For example, a study in South Africa found that demographic variables such as age, race, gender, marital status, education level, work experience, employment status, and native language could significantly predict psychological capital, job engagement, and turnover intention among teachers. Another study among students found that psychological capital was significantly influenced by family's economic status, with students from better economic backgrounds reporting higher levels of psychological capital.

Given the sensitivity of pregnancy and the importance of protecting women against its pressures through psychological resources, the present study aimed to examine the relationship between demographic variables and psychological capital in pregnant women.

Materials and Methods

This quantitative, correlational, cross-sectional study was conducted among pregnant women attending health centers affiliated with Qom University of Medical Sciences for prenatal care.

[DOI: 10.18502/jebhpme.v9i2.20204]

Inclusion criteria were as follows: pregnant women aged 18–45, being primigravida with singleton pregnancy, gestational age between 14 and 28 weeks, willingness to participate, Iranian nationality, literacy in reading and writing, no chronic illness before or during pregnancy (self-reported), confirmed fetal health based on ultrasound or prenatal tests, and absence of active psychological disorder or use of psychiatric medication.

Exclusion criteria included incomplete questionnaires and failure to answer more than 10% of the items.

A convenience sampling method was used. The required sample size was calculated based on the correlation coefficient between social capital and self-efficacy reported in the study by Rim Abdoulmatlab Jasem et al. (16) ($r = 0.377$), with a power of 80% and a 95% confidence interval, yielding a minimum of 53 participants. To account for the sampling method, the sample size was increased to 70. Finally, sample size calculations were performed using the formula below in MedCalc software.

$$n \geq \left(\frac{Z_{1-\frac{\alpha}{2}} + Z_{1-\beta}}{\frac{1}{2}\log_e \frac{1+r}{1-r}} \right)^2 + 3$$

Data collection tools included a demographic questionnaire and the McGee Psychological Capital Questionnaire. The demographic form comprised two sections:

Personal characteristics: woman's age, husband's age, woman's education level, husband's education level, woman's occupation, husband's occupation, years of marriage, housing status, self-rated marital satisfaction, and history of domestic violence.

Pregnancy-related information: whether the pregnancy was planned or unplanned, self-rated satisfaction with pregnancy, fetal sex, and history of infertility.

The McGee Psychological Capital Questionnaire (2011), inspired by Luthans' instrument, assesses psychological capital without restriction to specific occupational contexts. It contains 26 items rated on a six-point Likert scale from "strongly disagree" (1) to "strongly agree" (6), with total scores ranging from 26 to 156. Higher scores indicate higher psychological capital. The questionnaire includes four subscales: self-efficacy (items 1–7), hope (items 8–14), resilience (items 15–20), and optimism (items 21–26). To calculate the total psychological capital score, each subscale score is computed separately and then summed to obtain the overall score.

Data analysis was performed using $SPSS_{27}$. Quantitative variables were reported as mean and standard deviation, while categorical variables were presented as frequency (percentage). Pearson's correlation coefficient, independent *t*-test, one-way ANOVA and linear regression were used to examine the relationships between psychological capital and demographic variables. The significance level was set at $p < 0.05$.

The study protocol was approved by the Ethics Committee of Qom University of Medical Sciences (Code: IR.MUQ.REC.1402.053). All participants also provided written informed consent prior to enrollment. The study was conducted in accordance with the ethical principles of the Declaration of Helsinki.

Results

To examine the relationship between quantitative demographic variables and psychological capital scores, Pearson's correlation test was employed. Findings indicated a weak but positive correlation between women's age and psychological capital (r = 0.266, P-values = 0.026), as well as between husbands' age and psychological capital (r = 0.290, P-values = 0.015). In contrast, no significant associations were found for duration of marriage (P-values = 0.274), marital satisfaction (P-values = 0.720), or pregnancy satisfaction (P-values = 0.135) (Table 1).

[DOI: 10.18502/jebhpme.v9i2.20204]

Table 1. Correlation between quantitative demographic variables and psychological capital

Demographic variable	P	r	Result
Age	0.026	0.266	Significant
Husband's age	0.015	0.290	Significant
Duration of marriage	0.274	0.133	Not significant
Marital satisfaction	0.720	0.044	Not significant
Pregnancy satisfaction	0.135	0.180	Not significant

Qualitative variables

Independent t-test results showed that employed women (M = 127.92, SD = 13.91) had significantly higher psychological capital scores than housewives (M = 107.78, SD = 15.44; P-values < 0.001). Similarly, women with planned pregnancies (M = 114.68, SD = 16.18) scored higher than those with unplanned pregnancies (M = 104.10, SD = 17.54; P-values = 0.020). No significant relationships were observed between psychological capital and husband's employment status, women's education level, husband's education level, housing status, fetal gender, exposure to domestic violence, or history of infertility (P-values > 0.05) (Table 2).

Table 2. Relationship between qualitative demographic variables and psychological capital

Variable	Group	Mean	SD	P
Employment status	Housewife	107.78	15.44	<0.001*
	Employed	127.92	13.91	
Husband's job	Unemployed	128.50	12.26	0.056*
	Employed	110.80	16.89	
Education	Middle school	114.75	19.60	0.632**
	High school diploma	108.41	14.21	
	University degree	112.75	17.98	
Husband's education	Primary school degree	117.00	2.82	0.607**
	Middle school degree	129.00	0.00	
	High school diploma	115.00	14.11	
	University degree	110.61	17.96	
Housing status	Owner	112.45	18.29	0.770*
	Tenant	111.24	16.20	
Fetal gender	Female	108.96	18.94	0.183**
	Male	117.75	18.02	
	Unknown	109.95	13.25	
Domestic violence	Yes	110.90	19.66	0.857*
	No	111.96	16.82	
Planned pregnancy	Yes	114.68	16.18	0.020*
	No	104.10	17.54	
Infertility history	Yes	119.00	19.17	0.110*
	No	110.32	16.43	

*Independent t-test; **One-way ANOVA

Multiple regression analysis

Multiple linear regressions indicated that the overall model was significant. Among demographic variables, only maternal employment had a significant positive effect on psychological capital (β = 0.38, P-values = 0.002). Planned pregnancy was marginally significant (β = 0.22, P-values = 0.054). Other variables—including age, husband's age, duration of marriage, education (oneself and spouse), fetal gender, marital and pregnancy satisfaction, domestic violence, infertility history, and housing status—were not significant predictors. Collinearity diagnostics (VIF > 7) suggested a high correlation between wife's and husbands' education, warranting cautious interpretation (Table 3).

[DOI: 10.18502/jebhpme.v9i2.20204]

Table 3. Multiple regression analysis of demographic variables predicting psychological capital

Variable	VIF	P	t	β	SE B	B
Age	3.86	0.427	0.80	0.16	0.74	0.59
Husband's age	2.80	0.474	0.72	0.12	0.66	0.47
Duration of marriage	2.11	0.816	-0.23	-0.03	0.84	-0.20
Marital satisfaction	2.34	0.368	0.91	0.14	1.38	1.26
Pregnancy satisfaction	1.79	0.312	1.02	0.14	0.04	1.07
Employment status	1.36	0.002	3.19	0.38	5.00	15.93
Husband's job	3.14	0.170	-1.39	-0.25	13.09	-18.21
Housing status	1.59	0.509	0.67	0.09	4.33	2.88
Domestic violence	1.23	0.908	-0.12	-0.01	5.43	-0.63
Planned pregnancy	1.26	0.054	1.98	0.22	4.33	8.55
Infertility history	1.95	0.820	0.23	0.03	6.36	1.45
Education (middle/high)	7.02	0.972	0.04	0.01	10.60	0.37
Education (university)	7.68	0.757	-0.31	-0.09	10.13	-3.22
Husband's education (prim/mid)	2.52	0.623	0.50	0.08	22.93	11.35
Husband's education (high school)	7.29	0.859	0.18	0.05	12.29	2.19
Husband's education (university)	8.03	0.608	-0.52	-0.15	11.85	-6.12
Fetal gender (female/male)	1.78	0.099	-1.68	-0.23	4.73	-7.95
Fetal gender (unknown)	1.66	0.279	-1.01	-0.14	4.66	-5.10

Psychological capital components

Analysis of the relationship between psychological capital components and demographic variables revealed that **self-efficacy** had a weak but statistically significant positive correlation with husband's age (r = 0.240, P-values = 0.046). Self-efficacy scores were significantly higher among employed women (P-values < 0.001) compared to housewives. In addition, women with planned pregnancies demonstrated higher self-efficacy than those with unplanned pregnancies (P-values = 0.857) (Table 4).

Regarding **hope**, results indicated a weak but significant positive correlation with wife's age (P-values = 0.034) and husband's age (P-values = 0.012). Hope levels were significantly higher among employed women (P-values < 0.001) and were also significantly associated with husband's occupation (P-values = 0.045). Planned pregnancy was likewise linked to higher hope scores in pregnant women (P-values = 0.030) (Table 4).

For **resilience**, findings showed weak but significant positive correlations with wife's age (P-values = 0.027), husband's age (P-values = 0.033), and pregnancy satisfaction (P-values = 0.027). Employed women also exhibited significantly higher resilience compared to housewives (P-values < 0.001) (Table 4).

With respect to **optimism**, employed women had significantly higher optimism scores than housewives (P-values = 0.004). Optimism was also significantly associated with husband's occupation (P-values = 0.028). Furthermore, women with planned pregnancies reported higher level of optimism compared to those with unplanned pregnancies (P-values = 0.013) (Table 4).

Overall, these findings suggest that women's employment and planned pregnancy are key factors in enhancing various components of psychological capital, while the ages of both partners show weak but positive associations with some of these dimensions.

[DOI: 10.18502/jebhpme.v9i2.20204]

Table 4. Relationship between demographic variables and components of psychological capital

Quantitative variables	Self-efficacy	Hope	Resilience	Optimism
	p(r)	p(r)	p(r)	p(r)
Age (years)	0.051* (0.234)	0.034* (0.254)	0.027* (0.264)	0.197* (0.102)
Husband's age (years)	0.046* (0.240)	0.012* (0.300)	0.033* (0.255)	0.053* (0.232)
Duration of marriage (years)	0.575* (0.068)	0.205* (0.153)	0.506* (0.081)	0.160* (0.170)
Marital satisfaction	0.332* (0.118)	0.682* (0.050)	0.807* (0.030)	0.615* (0.061)
Pregnancy satisfaction	0.082* (0.210)	0.363* (0.110)	0.027* (0.265)	0.558* (0.071)
Qualitative variables	**Self-efficacy**	**Hope**	**Resilience**	**Optimism**
	p	p	p	p
Employment status	<0.001**	<0.001**	<0.001**	0.004**
Husband's occupation	0.179**	0.045**	0.091**	0.028**
Education	0.596***	0.873***	0.292***	0.398***
Husband's education	0.953***	0.502***	0.541***	0.177***
Housing status	0.732**	0.812**	0.446**	0.711**
Fetal gender	0.242***	0.260***	0.128***	0.387***
Domestic violence	0.686**	0.882**	0.927**	0.878**
Planned pregnancy	0.048**	0.030**	0.093**	0.013**
Infertility history	0.420**	0.081**	0.189**	0.064**

*Pearson correlation test ** Independent t-test *** One-way ANOVA

Discussion

This study examined the associations between demographic factors and various dimensions of psychological capital—namely self-efficacy, hope, resilience, and optimism—among pregnant women. Overall, the findings indicate that stability and preparedness (e.g., planned pregnancy, employment, and higher age) play a key role in strengthening women's psychological resources during pregnancy.

Self-efficacy and demographic factors

In the present study, self-efficacy among pregnant women was significantly associated with husband's age, maternal employment, and planned pregnancy. This is understandable, as self-efficacy—defined as an individual's belief in their ability to manage challenging situations—can be influenced by spousal support and the structured conditions of a planned pregnancy. These findings align with previous research; for example, Simon et al. (Ethiopia, 2023) reported that women with planned pregnancies had significantly higher childbirth self-efficacy (17). Similarly, studies have linked contraceptive use to higher self-efficacy (18), likely due to a greater sense of control and personal agency. A woman who plans her pregnancy actively prepares for this major life change, and such psychological and physical readiness enhances her confidence in managing forthcoming challenges (19).

While prior research has largely focused on spousal support, Amasha et al. found that husband's older age predicted stronger maternal–fetal attachment (20). A study in Turkey showed that emotional support from the husband was directly associated with increased childbirth self-efficacy (21). Although direct evidence is limited, it can be argued that older husbands may possess greater emotional maturity, financial stability, and capacity to provide both emotional and practical support—creating a secure environment in which maternal self-efficacy can flourish.

Multiple studies have identified employment as a self-efficacy enhancer. For instance, research in Indonesia during the COVID-19 pandemic found that employed women, due to ongoing exposure to workplace challenges and the need to adapt to changing environments, demonstrated greater problem-solving skills and stress management abilities. Regression analysis in that study identified employment as the strongest predictor of

[DOI: 10.18502/jebhpme.v9i2.20204]

self-efficacy (22). This may be attributed to access to supportive colleague networks, opportunities for skill development, increased social interaction, financial independence, and a sense of influence in the workplace.

Hope and demographic factors

Hope, as a core dimension of psychological capital, was positively associated in this study with women's age, husband's age, maternal employment, husband's occupation, and planned pregnancy. These results suggest that hope for the future and a positive outlook toward pregnancy may be shaped by personal experience (older age) and socio-economic conditions (employment and husband's job). Employed women, through active societal participation and stable financial resources, may feel greater control over their future. Likewise, a stable job for the husband can provide women with greater economic security, thereby enhancing hope. Planned pregnancy allows women to enter this stage with greater psychological and physical readiness, fostering a more positive outlook.

Although direct research is limited, related findings exist. For example, a study in Ethiopia found that unwanted pregnancy was associated with nearly twice the odds of low pregnancy happiness (23). This underscores the importance of pregnancy planning, suggesting that preparation may enhance positive outlooks and motivation (hope) in mothers. Amasha et al. also observed that planned pregnancy and husband's age were positive predictors of maternal–fetal attachment (20), highlighting the role of spousal support and prior intent in fostering positive attitudes. Furthermore, Norouzi et al. reported that hope was positively correlated with various aspects of maternal–fetal attachment (24), indicating its supportive role in psychological adaptation during pregnancy. Collectively, the results of this study suggested that advance preparation for pregnancy and economic stability (via maternal or spousal employment) can elevate hope levels in pregnant women.

Resilience and demographic factors

The present study found that resilience was associated with women's age, husband's age, pregnancy satisfaction, and employment. Older age brings greater life experience, which may enhance women's ability to cope with stress and adapt to new circumstances. Pregnancy satisfaction, as a key variable, can promote better acceptance of new conditions and strengthen psychological capacity. Employment not only provides economic resources but also creates a supportive social and environmental framework that fosters resilience. These findings align with psychological theories that view resilience as the product of interactions between individual and social resources.

Norouzi et al. found that women with higher resilience had stronger maternal–fetal attachment (24), suggesting that more resilient women respond to pregnancy with more adaptive emotional reactions. Maternal satisfaction with pregnancy (e.g., planned and accepted pregnancies) likely increases resilience. A study in Indonesia reported that women with high pregnancy satisfaction were 3.8 times more likely to use adaptive coping strategies (25). Moreover, maternal employment, by providing social frameworks and financial resources, can strengthen coping skills and resilience. This aligns with the "job enrichment" theory, which posits that professional challenges enhance individuals' psychological capacity to manage stress (22).

Optimism and demographic factors

In this study, optimism was significantly associated with maternal employment, husband's occupation, and planned pregnancy. As a protective psychological resource, optimism can help pregnant women withstand psychological and social pressures. Employed women often have greater financial independence and social engagement, fostering a more positive outlook toward the future. Similarly, a stable job for the husband can create greater psychological security and support a more optimistic perspective. Planned pregnancy enables women to approach the experience with readiness and positivity.

[DOI: 10.18502/jebhpme.v9i2.20204]

Ayala et al. (2023) found that women with lower situational optimism were significantly more likely to experience adverse birth outcomes early in pregnancy (26). Conversely, factors such as unwanted pregnancy and domestic violence have been strongly linked to reduced maternal psychological well-being (23), which in turn can diminish optimism. The study's findings therefore suggest that employment and job stability (both maternal and spousal), along with planned pregnancy, likely create a positive foundation for fostering optimism in pregnant women.

Psychological capital and demographic factors

Psychological capital (PsyCap) is a composite of self-efficacy, hope, resilience, and optimism (27). In the present study, positive correlations were observed between the ages of both partners and women's PsyCap. This suggests that life experience (older age), emotional maturity, and relational stability (e.g., having a responsible, older partner) contribute to increased psychological capacity in women. PsyCap was also significantly higher among employed women and those with planned pregnancies, reflecting psychological readiness and active acceptance of the maternal role. Conversely, no significant associations were found between PsyCap and factors such as husband's occupation, parental education, housing status, fetal gender, exposure to domestic violence, or infertility history. This pattern suggests that women's psychological resources are rooted more in internal capacities and self-perceptions than in external circumstances, consistent with the definition of PsyCap as a positive psychological capacity that enables individuals to cope with challenges (27).

Prasad and Sandhyavani (2019) found positive associations between work experience, age group, education, and PsyCap (28). Similarly, Sameer et al. reported that five core job characteristics (skill variety, task significance, job feedback, task identity, and job autonomy) were positively associated with the four PsyCap components (hope, self-efficacy, resilience, and optimism) (29). In contrast to studies reporting a link between education and PsyCap (28), no such association was observed here—possibly due to the unique characteristics of pregnancy or cultural differences.

Conclusion

The findings of this study indicate that certain demographic variables are significantly associated with components of psychological capital in pregnant women. Maternal and spousal age, employment, and planned pregnancy are influential in enhancing self-efficacy, hope, resilience, and optimism, whereas factors such as husband's occupation, education level, housing status, and exposure to domestic violence are not significantly related to PsyCap. Overall, psychological capital appears to reflect individual, psychological, and pregnancy-planning factors more than external conditions. These results underscore the importance of psychosocial support, promoting women's employment, and implementing educational and supportive interventions for pregnancy planning. Screening and educational programs for housewives and mothers with unplanned pregnancies, as well as integrating women's employment support into maternal health policies, could play a vital role in improving mental health and quality of life.

This study's cross-sectional design limits causal inference between variables. The use of self-report questionnaires may be subject to response bias or social desirability effects. Additionally, sampling from a single geographic area may limit the generalizability of findings to other cultural or social groups. Future research should examine the role of other cultural, social, and supportive factors to provide a more comprehensive understanding of influences on pregnant women's psychological capital.

Ethical consideration

The study protocol was approved by the Ethics Committee of Qom University of Medical Sciences (Code: IR.MUQ.REC.1402.053). Written informed consent was obtained from all participants, and

[DOI: 10.18502/jebhpme.v9i2.20204]

confidentiality of the data was strictly maintained. Participation was voluntary, and respondents could withdraw at any stage without consequences.

Acknowledgments

The authors sincerely thank all the women who generously devoted their time to participate in this study and whose responses made this research possible. They also extend their special appreciation to the administrators and staff of the health centers affiliated with Qom University of Medical Sciences for their valuable cooperation in data collection.

Conflict of interest

The authors declared no conflicts of interest.

Authors' contributions

All authors actively contributed to the study design, data collection, analysis, interpretation of results, and manuscript preparation. They also read and approved the final version of the manuscript.

Funding

This study was supported by internal funding from Qom University of Medical Sciences as part of a graduate thesis project.

References

1. Davis EP, Narayan AJ. Pregnancy as a period of risk, adaptation, and resilience for mothers and infants. Dev Psychopathol. 2020;32(5):1625_32.
2. Chauhan A, Potdar J. Maternal Mental Health During Pregnancy: A Critical Review. Cureus. 2022;14(10):e.30656.
3. Dadi AF, Miller ER, Bisetegn TA, Mwanri L. Global burden of antenatal depression and its association with adverse birth outcomes: an umbrella review. BMC public health. 2020;20(1):173.
4. Roddy Mitchell A, Gordon H, Atkinson J, Lindquist A, Walker SP, Middleton A, et al. Prevalence of Perinatal Anxiety and Related Disorders in Low- and Middle-Income Countries: A Systematic Review and Meta-Analysis. JAMA Netw Open. 2023;6(11):e.2343711
5. Fawcett EJ, Fairbrother N, Cox ML, White IR, Fawcett JM. The Prevalence of Anxiety Disorders During Pregnancy and the Postpartum Period: A Multivariate Bayesian Meta-Analysis. J Clin Psychiatry. 2019;4(80)
6. Cunningham FG, Leveno KJ, Bloom SL. Williams Obstetrics. 26 ed: Mcgraw-hill New York, NY, USA; 2022.
7. Wu S, Xu Z, Zhang Y, Liu X. Relationship among psychological capital, coping style and anxiety of Chinese college students. Rivista di psichiatria. 2019;54(6):264-8.
8. Luthans F, Youssef-Morgan CM. Psychological capital: An evidence-based positive approach .2017.
9. Guo YF, Wang KF, Cross W, Lam L, Plummer V, Li J. Quality of life in cancer patients with different preferences for nurse spiritual therapeutics: The role of psychological capital. J Adv Nurs. 2022;78(4):991_1000.
10. Ren Y, Ji B. Correlation Between Perceived Social Support and Loneliness Among Chinese Adolescents: Mediating Effects of Psychological Capital. Psychiatr Danub. 2019;31(4):421_8.
11. Jafari A, Hesampour F. Predicting life satisfaction based on spiritual intelligence and psychological capital in older people. Iranian Journal of Ageing. 2017;12(1):90_103.
12. Minglu L, Fang F, Guanxi L, Yuxiang Z, Chaoqiong D, Xueqin Z. Influencing factors and correlation of anxiety, psychological stress sources, and psychological capital among women pregnant with a second child in Guangdong and Shandong Province. Journal of affective disorders. 2020;264:115_22.
13. Mvana SW, Louw L. Socio-demographic variables of work engagement, psychological capital and turnover intention among South African teachers. African Journal of Employee Relations. 2020;44(1):1_22.
14. Mukherjee U, Srivastava K. The impact of demography on psychological capital: An empirical study in India. International Journal of Bussiness Research. 2017;4(2):7_15.
15. Zhou A, Yuan Y, Kang M. Mindfulness Intervention on Adolescents' Emotional Intelligence and Psychological Capital during the COVID-19 Pandemic: A Randomized Controlled Trial. International Journal of Mental Health Promotion. 2022;24(5).
16. Abdoulmatlab Jasem R, Torkan H, Mared Jabr A, Mahdad A. The Mediating Role of Psychological Capital in the Relationship Between Academic Self-Efficacy, Academic Engagement, and Academic Meaningfulness

[DOI: 10.18502/jebhpme.v9i2.20204]

with Academic Achievement Among Students in Wasit, Iraq. JAYPS [Internet]. 2025 Mar. 10 [cited 2025 Aug. 26];6(3):1-11.
17. Simon T, Fikadu K, Afework B, Alemu H, Kussia B. Childbirth Self-Efficacy and Its Associated Factors among Pregnant Women in Arba Minch Town, Southern Ethiopia, 2023: A Cross-Sectional Study. J Pregnancy. 2024;2024:6478172.
18. Hamidi OP, Deimling T, Lehman E, Weisman C, Chuang C. High self-efficacy is associated with prescription contraceptive use. Women's Health Issues. 2018;28(6):509_13.
19. Yuksel A, Bayrakci H. Self-efficacy, psychological well-being and perceived social support levels in pregnant women. International Journal of Caring Sciences. 2019;12(2):1_10.
20. Amasha H, Abdel-Haleem S, El Maghawery A, Elbahlowan G. The relation between pregnant women's self-efficacy and their maternal-fetal attachment. Evidence-Based Nursing Research. 2020;2(3):137_46.
21. Kucukkaya B, Basgol S. The effect of perceived spousal support on childbirth self-efficacy on pregnant women in turkey. BMC Pregnancy Childbirth. 2023;23(1):173.
22. Kusumawardani DA, Ningtyias FW, Al Farizi S. Predictors of Self-Efficacy in Pregnant Women During the COVID-19 Pandemic. Window of Health: Jurnal Kesehatan .2023:273_49.
23. Tesfa D, Aleminew W, Tadege M, Digssie A, Abebe B, Abebaw S, et al. Level of Happiness and Its Associated Factors Among Pregnant Women in South Gondar Zone Hospitals, North Central Ethiopia. Int J Womens Health. 2020;12:983_91.
24. Noroozi M, Gholami M, Mohebbi-Dehnavi Z. The relationship between hope and resilience with promoting maternal attachment to the fetus during pregnancy. Journal of Education and Health Promotion. 2020;9 (1):54.
25. Wahyuni S, Rahayu T, Nursalam. Self efficacy of pregnant women in areas affected by Covid 19. Enferm Clin. 2021;31:601_4..
26. Ayala NK, Fain AC, Cersonsky TEK, Werner EF, Miller ES, Clark MA, et al. Early pregnancy dispositional optimism and pregnancy outcomes among nulliparous people. Am J Obstet Gynecol MFM. 2023;5(11):101155.
27. Zeng K, Li Y, Yang R. The mediation role of psychological capital between family relationship and antenatal depressive symptoms among women with advanced maternal age: a cross sectional study. BMC Pregnancy and Childbirth488 (1)22,2022.
28. Prasad MP, Sandhyavani DK. The impact of demography on psychological capital: An empirical study in the retail sector. International Journal of Management. 2019;10(1).
29. Sameer YM, Mohamed AA, Mohamad MS. Antecedents of psychological capital: The role of work design. Journal of Economics and Management. 2019;35:124_49.

[DOI: 10.18502/jebhpme.v9i2.20204]