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General Self-Efficacy Among Pregnant Women Attending Antenatal Care in Tunisia and Its Association with Family Quality of Life: A Multi-Center Cross-Sectional Study

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Abstract: Background/Objectives: General self-efficacy (GSE) is a substantial element during pregnancy that promotes healthy decision-making and prevents complications. Information on predictive factors of GSE among pregnant women is limited. This study aimed to assess the GSE among pregnant women and identify its relationship with Family quality of life (FQOL) domains in a lower-middle-income community. **Methods**: This cross-sectional analytical study was conducted in nine antenatal care centers from July 2024 to March 2025. Pregnant women were enrolled through multiple-stage sampling method. GSE in pregnant women was assessed using the General Self-efficacy Scale. FQOL was assessed using the Beach Center Family Quality of Life Scale. Univariable and Multivariable linear regression analyses were performed to assess predictors of GSE among pregnant women. **Results**: A total of 417 pregnant women participated in the study. Prevalence of low GSE was 12.2%. Multivariable linear regression showed that older age (p=.02), rural area (p=.007), and planned pregnancy (p=.03) were predictors of GSE among pregnant women. Total score of FQOL (p<.001), parenting (p=0.004), and material well-being (p=0.043) were positive determinant factors of GSE in pregnant women who have at least one child. **Conclusion:** This magnitude of low GSE in pregnant women was relatively high, especially in those who have at least one child. This study supports researchers and clinicians to develop multidisciplinary prenatal family-oriented programs addressing FQOL, material wellbeing, and parenting accordingly to the family needs.

Keywords: general self-efficacy; family; quality of life; pregnancy; perinatal care

1. Introduction

In the last decades, maternal mortality has been unacceptably increasing. According to the World Health Organization, 700 women died worldwide in 2023 from modifiable risk factors related to pregnancy and childbirth [1]. Almost 92% of all maternal deaths occurred in low- and lower-middle-income countries due to preventable complications before and during pregnancy. These complications can be worsened when not managed as part of the care plan [1]. Indeed, quality of care

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is the most well-known factor that leads to complications of pregnancy [2]. Numerous actions that promote adherence to healthy behaviours were implemented to improve the quality of care for pregnant women [3]. The promotion of maternal adherence to healthy behaviours is key to improving pregnancy outcomes, quality of life, and reducing maternal mortality and morbidity during pregnancy [4]. Evidence showed that successful behaviour change is predicted by the individual's self-efficacy [5,6]. The Social Cognitive Theory (Bandura, 1997) suggested that a personal sense of control promotes commitment and facilitates a change of health behaviour. Perceived self-efficacy refers to the belief that one can perform novel or difficult tasks and achieve desired outcomes [7]. Pregnancy is a rich interplay of physical changes, emotional adjustment and familial adaptations [8–10]. Pregnant women general self-efficacy (GSE) is substantial in recognizing and coping with these life changes. Previous research revealed that perceived GSE in pregnant women is related to their self-abilities for health practices and their health status management [11,12]. Another study showed that GSE reduces symptoms of anxiety in pregnant women [13]. Therefore, it is crucial to put an emphasis on GSE during pregnancy and its associated factors. This will help practitioners to settle tailored-health care plans that promote healthy pregnancies, improve the quality of care, and thus reduce maternal mortality in vulnerable regions.

According to the literature, social support, in particular family support, increased childbirth self-efficacy, and labor pain relief in pregnant women [14,15]. Thus, it is important to seek to what extent family-related factors predicted self-efficacy in pregnant women. Contemporary research supported a family-oriented approach of care as the patient's family is considered the natural support system, which can promote both individual and family health [16]. The World Health Organization defined the family as the "primary social agent in the promotion of health and well-being" [17]. Thus, family-centered health promotion is a cornerstone in achieving optimal health outcomes [18]. Family health is defined as "A resource at the level of the family unit that develops from the intersection of the health of each family member, their interactions and capacities, as well as the family's physical, social, emotional, economic, and medical resources…Positive family health promotes family members' sense of belonging and capacity to develop and adapt, to care for one another, and to meet responsibilities." [18]

Examining intra-family relationships and family functioning in perinatal period represents an important avenue to identify ways to sustainably support family health [19]. Preliminary research already suggests that healthy family functioning, which includes family cohesion, positive family interaction, and well-being, is an important resource and protective factor for the mental health of family members during perinatal period [19–21]. Samuel and colleagues assert that "families that function well support societies and families with an effective quality of life are a social resource" [22]. Indeed, several models consider the family as a core dimension and aim to promote a better family quality of life (FQOL) to ensure proper functioning [23,24]. FQOL is a relatively complex concept that is defined by numerous theoretical conceptualizations [23].

Zuna et al. stated that it is a dynamic sense of well-being of the family, collectively and subjectively defined and informed by its members, in which individual and family-level needs interact [25]. Brown and Brown argue "FQOL is concerned with the degree to which individuals experience their own quality of life within the family context, as well as with how the family as a whole has opportunities to pursue its important possibilities and achieve its goals in the community and the society of which it is a part" [26]. Poston et al. defined four functioning domains of the FQOL, which are daily family life, parenting, family interactions, and financial well-being [27]. Other researchers added other dimensions such as family relationships, overall family well-being [28]. According to a scoping review, the most used and effective scales for assessing the FQOL are the Beach Center Family Quality of Life Scale [29] and the Family Quality of Life Survey-2006 [30]. These instruments are applicable for families containing or not a family member with disabilities [31].

Previous research assessed the mediating role of GSE among Chinese pregnant women in the association between family functions and depressive symptoms [32]. The findings suggested that

 doi:10.20944/preprints202506.1074.v1

when a pregnant woman receives insufficient support, everyday life care, spiritual comfort, and sympathy from her family, good self-efficacy can alleviate her negative emotions and depressive symptoms. In the model proposed by the authors, the association between pregnant women's self-efficacy and family functions was not clear. To concretise this mediating effect, researchers need to investigate the role of family functions in determining the level of GSE. This study aimed to assess the GSE among pregnant women and identify its relationship with FQOL domains in a lower-middle-income community.

2. Materials and Methods

2.1. Study Design and Settings

This was a multicenter analytical cross-sectional study that was conducted in nine antenatal clinics in the city of Sousse, located in the eastern center of Tunisia, from July 2024 to March 2025 using a multi-stage cluster sampling method. During the first stage, researchers randomly selected four health districts in the region from a list of 12. During the second stage, primary healthcare centers providing antenatal care were randomly selected from a second list containing 27 antenatal healthcare centers located in the selected health districts using Excel. The necessary information to carry out the sampling of health facilities has been provided by the regional health authorities. The authors used random sample selection to reduce the selection bias.

2.2. Population and Sampling

The target population is pregnant women aged 18 to 45 years, regardless of pregnancy risk status. Participants who attended antenatal care during the study period in one of the selected healthcare facilities and who voluntarily agreed to participate in the study, were included. Researchers have approached all participants attending the centers previously selected during the period of data collection.

2.3. Sample Size Calculation

The sample size was calculated using the single population proportion formula. Since the prevalence of low general self-efficacy was unknown and no prior research had been conducted in countries with similar socioeconomic characteristics, this study used an estimate of 50%, with a 5% margin of error and a 95% confidence level. The minimal sample size was 385 [33].

2.4. Data Collection

General self-efficacy (GSE) was measured using the General Self-efficacy Scale (GSES) validated among Arab women [34,35]. The GSES assesses the strength of an individual belief in his or her own ability to respond to novel or difficult situations and to deal with any associated obstacles [35]. This scale is composed of 10 items scored on 4 four-point Likert scale (from 1 "not at all true" to 4 "Exactly true"). Total general self-efficacy score is calculated by selected points of items giving a maximum total score of 40. Higher score indicates higher GSE. GSE was classified according to the total score as following: ≤ 20 indicates low GSE, 21 to 30 indicates moderate GSE, 31 to 40 indicates high GSE [36]. The high reliability, stability, and construct validity of the GSES scale have been confirmed in previous studies. These facts help in reducing the risk for information bias [34,37].

FQOL was assessed using the "Beach center family quality of life scale" in its Arabic version (BCFQOL-AR) [38]. This instrument, originally developed for families of children with disabilities, is one of the most used in the literature for its validity and reliability [28,29,31,38]. It showed validity and reliability also for families of children without disabilities [39,40]. It is composed of 25 items divided into 5 dimensions. In this study, the version for families of children without disabilities containing the first 21 items was used. These items are grouped into 4 dimensions (D1: family interaction: items 1-6; D2: parenting: items 7-12; D3: emotional well-being: items 13-16; D4: material well-being: items 17-21). The participant indicates on a 5-point Likert scale her level of satisfaction

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with each item (1: not at all satisfied; 5: very satisfied). The calculation of the scores for each dimension is done by adding the points (1 to 5) provided by the participants. Higher scores indicated higher level of satisfaction with FQOL domains.

Sociodemographic and general characteristics were recorded, including age, place of residence, marital status, level of education, number of family members, monthly income, household income level, occupation, number of children, children under 5 years. Clinical and obstetrical information included gestational age, para, gravida, pregnancy complications such as gestational diabetes mellitus or pre-eclampsia, planning of pregnancy, smoking, receiving general support of the husband or not (physical and moral).

2.5. Data Analyses

Data entry, descriptive analysis, and score calculation was performed by IBM SPSS Statistics 20.0. R statistics software (version 4.3.1) was used to perform univariable and multivariable linear regression analyses. Quantitative variables were expressed as mean and standard deviation (SD). Qualitative variables were expressed in frequencies and percentages. Normal distribution of continuous variables was verified using the Kolmogorov-Smirnov test. To determine predictors of GSE and assess the relationship between GSE and the family quality of life, the authors performed univariable and multivariable linear regression analysis. Since the FQOL instrument was not applicable for families who did not have children, results were presented for all sample and for a subgroup of pregnant women who have at least one child. To reduce the collinearity effect related to the FQOL total score and domains, two different linear regression models were performed. The significance level was defined as $p<.05$ with a confidence interval of 95%.

2.6. Ethical Considerations

Ethical approval was obtained from a regional Human Research Ethics Committee under the number "IORG 0007439 ERC02092023. The participants were informed about the purpose of the study, the voluntary participation, and the right to drop out. Written informed consent was obtained from all participants, and the collected data were coded and treated anonymously and confidentially.

3. Results

In this study, 417 pregnant women were enrolled. Table 1 shows that the mean age of participants was 30.24±5.414, living mostly in urban areas (79.9%). Most of the participants had a university diploma (42.9%), employment (55.4%), and a monthly income equal to 2 to 4 times the minimum wage in Tunisia (42.2%). Almost seventy-seven percent of the sample perceived that their socio-economic level was moderate (n=319). More than half of pregnant women declared that they received general support from their husbands (65.9%).

Table 1. Sociodemographic data of participants (n=417).

Variables		n(%)
Area of residency	Urban	333(79.9)
	Rural	84(20.1)
Level of education	Illiterate	19(4.6)
	Primary	55(13.2)
	Secondary	164(39.3)
	University	179(42.9)
Employment status	Employed	231(55.4)
	Unemployed	186(44.6)
Family monthly income	<500 TD	47(11.3)
	500-999 TD	138(33.1)
	1000-2000 TD	176(42.2)
	>2000 TD	56(13.4)
Household income level	Low	75(18)
	Moderate	319(76.5)

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	High	23(5.5)
	Married	397(95.2)
Marital status	Divorced	18(4.3)
	Widowed	2(.5)
Age (m±SD)		30.24±5.414
Household size (m±SD)		3.20±1.21

Table 2 presents the obstetrical and clinical information of the participants. Most of the women (82.9%) were pregnant in the second and third trimesters. More than half of the subjects had two or more pregnancies (66.9%), one or more parities (62.8%), no current pregnancy complications (64.5%), no previous abortion (68.1%), and no previous C-section (69.3%).

Table 2. Clinical and obstetrical data of participants (n=417).

Variables		n(%)
Gestational age	First trimester	71(17)
	Second trimester	174(41.7)
	Third trimester	172(41.2)
Gravida	One	138(33.1)
	Two or more	279(66.9)
Number of children	None	155(37.2)
	One or more	262(62.8)
Current pregnancy complications	No	269(64.5)
	Yes	148(35.5)
Present chronic diseases	No	332(79.6)
	Yes	85(20.4)
Previous abortion	No	284(68.1)
	Yes	133(31.9)
Previous C-section	No	289(69.3)
	Yes	128(30.7)
Current pregnancy planned	No	173(41.5)
	Yes	244(58.5)
Health education about pregnancy	No	197(47.2)
	Yes	220(52.8)
Smoking	No	383(91.8)
	Yes	34(8.2)

Table 3 describes the sample in terms of GSE and FQOL domains. Almost half of the subjects reported moderate GSE with a mean total score of 28.15±6.016. The mean of family interaction and parenting scores were respectively 25.37±4.709 and 24.13±4.858 from a total domains score of 30. The mean of material well-being was greater than the mean of emotional well-being.

Table 3. Results of GSES and BCFQOL-AR.

Scales	**All sample (n=417)**	**Subgroup of Pregnant women who do not have children (n=155)**	**Subgroup of Pregnant women who have children (n=262)**
GSES total score (m±SD)	28.15±6.016	28.30±6.007	28.06±6.031
GSE levels, n (%)			
Low	51(12.2)	15(9.7)	36(13.7)
Moderate	220(52.8)	86(55.5)	134(51.1)
High	146(35.0)	54(34.8)	92(35.1)
BCFQOL-AR (m±SD)	83.99±13.200		83.90±13.556
Family interaction	25.37±4.709	25.90±4.761	25.06±4.659
parenting	24.13±4.858	-	24.65±4.849
Emotional wellbeing	14.41±3.528	14.72±3.641	14.23±3.453
Material wellbeing	20.08±3.731	20.28±3.727	19.97±3.736

Table 4 presents findings of linear regression analysis performed for the whole sample to assess the relationship between general self-efficacy and the characteristics of pregnant women attending

 doi:10.20944/preprints202506.1074.v1

antenatal care. Multivariable analysis showed that age (p=.02) and rural area (p=.007) negatively determined the GSE of pregnant women. Planned pregnancy was positively determined by GSE (p=.03). Univariable analysis revealed that unemployment (p=.033), low household income (p<.001), and complications during pregnancy (p=0.028) were negatively associated with GSE. However, high household income was positively related to GSE (p=.044).

Table 4. Univariable and multivariable linear regression analysis assessing the general self-efficacy and the associated factors among pregnant women attending antenatal care (n=417).

	Univariable analysis			Multivariable model		
Covariates	**Estimate**	**95% CI**	**p-value**	**Estimate**	**95% CI**	**p-value**
Age	-0.13	(-0.24, -0.03)	**0.015**	-0.14	(-0.14, 0.13)	**0.02**
Educational level						
No education		Reference			Reference	
Primary	-1.6	(-3.27, 2.95)	0.921	-0.51	(-3.42, 0.87)	0.743
Secondary	2.04	(-0.79, 4.88)	0.157	0.98		0.505
Tertiary	2.81	(-0.01, 5.63)	0.051	1.06		0.472
Marital status						
Widowed		Reference			Reference	
Married	-4.28	(-12.65, 4.09)	0.316	-3.59	(-5.86, 5.13)	0.385
Divorced	-6.50	(-15.30, 2.30)	0.147	-5.27		0.227
Employment status						
Employed		Reference			Reference	
Unemployed	-1.26	(-2.42, -0.10)	**0.033**	-0.44	(-2.51, 0.93)	0.477
Place of residence						
Urban		Reference				
Rural	-3.11	(-4.52, -1.70)	**<0.001**	-2.06		**0.007**
Household income level						
Moderate		Reference			Reference	
Low	-2.60	(-4.06, -1.08)	**<0.001**	-1.21	(-2.12, 1.56)	0.13
High	2.58	(0.07, 5.08)	**0.044**	2.34		0.095
Number of children						
None		Reference			Reference	
One or more children	-0.24	(-1.44, 0.96)	0.695	0.72	(-4.60, 0.39)	0.342
Household size	-0.26	(-0.74, 0.22)	0.291	0.08		0.766
Having chronic diseases						
No		Reference			Reference	
Yes	-0.27	(-1.71, 1.17)	0.71	0.29	(0.03, 3.39)	0.701
Gestational age	0.09	(-0.17, 0.36)	0.49	0.16		0.233
Complications during pregnancy						
No		Reference			Reference	
Yes	-1.35	(-2.55, -0.14)	**0.028**	-0.88	(-3.15, 1.69)	0.161
Previous miscarriage						
No		Reference			Reference	
Yes	-0.46	(-1.70, 0.78)	0.47	0.12	(-5.37, -0.21)	0.848
Previous c-section						
No		Reference			Reference	
Yes	-0.50	(-1.76, 0.75)	0.431	0.1	(-5.35, 0.96)	0.89
Planned pregnancy						
No		Reference			Reference	
Yes	1.78	(0.62, 2.95)	**0.003**	1.26	(-4.01, 1.86)	**0.036**

For pregnant women who have children, Univariable analysis shows that low household income level (p=.001) and rural area of residence (p=.002) were negatively associated to GSE (Table 5). All FQOL domains were positively associated to GSE (p<.001). Multivariable analysis revealed that the total score of FQOL (p<.001), parenting (p=0.004), and material well-being (p=0.043) were positive determinant factors of GSE in pregnant women who have at least one child.

 doi:10.20944/preprints202506.1074.v1

Table 5. Univariable and multivariable linear regression analysis assessing the association between family quality of life and general self-efficacy among pregnant women with one or more children (n=262).

	Univariable analysis			Multivariable model 1*			Multivariable model 2**		
Covariates	**Estimate**	**95% CI**	**p-value**	**Estimate**	**95% CI**	**p-value**	**Estimate**	**95% CI**	**p-value**
Age	-0.16	(-0.29, -0.02)	**0.021**	-0.12	(-0.27, 0.01)	0.077	-0.14	(-0.28, -0.01)	**0.036**
Educational level									
No education		Reference			Reference				
Primary	-0.84	(-4.49, 2.81)	0.652	-2.39	(-5.88, 1.09)	0.179	-2.22	(-5.71, 1.28)	0.214
Secondary	2.09	(-1.23, 5.42)	0.216	-0.58	(-3.87, 2.70)	0.728	-0.46	(-3.74, 2.82)	0.783
Tertiary	2.32	(-1.03, 5.68)	0.174	-0.84	(-4.21, 2.53)	0.625	-0.55	(-3.90, 2.79)	0.746
Marital status									
Married		Reference			Reference				
Divorced	-3.80	(-7.61, 0.006)	0.05	-1.89	(-5.59, 1.80)	0.316	-1.75	(-5.44, 1.94)	0.353
Employment status									
Employed		Reference			Reference				
Unemployed	-1.17	(-2.63, 0.29)	0.118	-0.16	(-1.63, 1.32)	0.834	-0.15	(-1.63, 1.33)	0.846
Place of residence									
Urban		Reference							
Rural	-2.82	(-4.61, -1.04)	**0.002**	-1.18	(-3.08, 0.73)	0.228	-1.19	(-3.09, 0.71)	0.219
Household income level									
Moderate		Reference			Reference				
Low	-2.99	(-4.84, -1.14)	**0.001**	-1.78	(-3.67, 0.09)	0.064	-1.84	(-3.71, 0.03)	0.054
High	3.10	(-0.66, 6.86)	0.105	1.33	(-2.33, 5.01)	0.476	1.55	(-2.12, 5.23)	0.408
Household size	-0.45	(-1.19, 0.29)	0.231	0.10	(-0.64, 0.84)	0.789	0.18	(-0.55, 0.91)	0.636
Having chronic diseases									
No		Reference			Reference				
Yes	-1.05	(-2.84, 0.74)	0.249	0.42	(-2.23, 1.39)	0.654	-0.04	(-1.82, 1.74)	0.968
Gestational age	0.008	(-0.34, 0.35)	0.963	0.13	(-0.19, 0.44)	0.428	0.15	(-0.16, 0.47)	0.341
Complications during pregnancy									
No		Reference			Reference				
Yes	-0.89	(-2.41, 0.63)	0.248	0.38	(-1.12, 1.88)	0.619	0.15	(-1.34, 1.64)	0.841
Previous miscarriage									
No		Reference			Reference				
Yes	-0.17	(-1.72, 1.38)	0.827	0.57	(-0.88, 2.02)	0.444	0.54	(-0.92, 1.99)	0.469
Previous c-section									
No		Reference			Reference				
Yes	-0.39	(-1.87, 1.07)	0.594	0.26	(-1.16, 1.69)	0.717	0.39	(-1.03, 1.81)	0.587
Planned pregnancy									
No		Reference			Reference				
Yes	1.44	(-0.02, 2.91)	0.053	0.684	(-0.94, 1.95)	0.495	0.46	(-0.97, 1.89)	0.529
Family interaction	0.33	(0.17, 0.48)	**<0.001**	-0.06	(-0.27, 0.14)	0.536		-	
Parenting	0.44	(0.30, 0.59)	**<0.001**	0.29	(0.09, 0.50)	**0.004**		-	
Emotional well-being	0.44	(0.23, 0.64)	**<0.001**	0.10	(-0.15, 0.36)	0.423		-	
Physical /Material well-being	0.60	(0.42, 0.78)	**<0.001**	0.25	(0.01, 0.50)	**0.043**		-	
Family quality of life	0.17	(0.12, 0.22)	**<0.001**		-		0.15	(0.09, 0.20)	**<0.001**

Discussion

4.1. GSE in Pregnant Women

In the context of pregnancy, GSE is considered as an important psychological resource as women face numerous physiological, emotional, and social adjustments. GSE empowers women to effectively cope with the physical and emotional demands of pregnancy, enhancing their ability to make informed health decisions, manage stress, and maintain psychological resilience [6,41]. Previous research revealed that GSE mediates the association between family functions and depressive symptoms among pregnant women. In this study, we aimed to deeply understand the relationship between pregnant women GSE and family interactions and well-being. The current findings revealed that twelve in one-hundred pregnant women had low GSE and half of the sample showed moderate GSE. Higher prevalence of low GSE was registered in China (22.6%) and Indonesia (19.2%) [12,32]. This could be explained by the misreport of subjects regarding to their real status of GSE.

4.2. GSE and FQOL

 doi:10.20944/preprints202506.1074.v1

In our knowledge, this was the first study to assess FQOL during perinatal period and its association with GSE among pregnant women particularly who have at least one child. FQOL, parenting and physical/material well-being positively correlated with GSE in pregnant women who had at least one child. This means that pregnant women having at least one child, who were satisfied with their FQOL, their parenting style (child rearing) and their physical/material well-being, were likely to have higher GSE level. Conversely, pregnant women having at least one child, who were not satisfied with their FQOL, their parenting style (child rearing) and their physical/material well-being, were likely to have lower GSE level.

Family interaction and emotional well-being were not predictors of GSE, which is unconcordant with results of previous research [32]. In another context, lower family functions, including family emotional connection and communication, decreased GSE among pregnant women. These differences could be explained by the socioeconomic disparities and lower job opportunities in lower-middle income countries. Indeed, in this study almost half of the sample were unemployed and 11.3% had a family monthly income inferior to the minimum wage in Tunisia [42]. This must create a substantial physical/material issue within the family. Consequently, GSE of pregnant women depends on their satisfaction of physical/material well-being, especially in pregnant women having a child. In a similar context, researchers found that being a career woman (employment) was a predictor of good GSE among pregnant women in Indonesia [12].

4.3. GSE and General Factors

Despite the crucial role a GSE in managing a healthy perinatal period, most previous research focused on childbirth self-efficacy. This fact produced a limitation in discussing the present results [15,43]. For instance, Simon et al. found that low childbirth self-efficacy was related to unplanned pregnancy and age ≤ 24 years. This was like the current findings. Among all pregnant women, age and planned pregnancy positively correlated with GSE. This means that older women and women who planned their current pregnancies had greater GSE level. Another study found that fertile age were predictor of good GSE in comparison to high risk age (35 years) among pregnant women in Indonesia [12].

This study revealed that rural place of residence negatively correlated with GSE. This means that women who are resident in rural areas are more likely to have lower GSE. This could be indirectly related to the educational level, considering that more than half of subjects had not an academic education. In fact, Rural women usually had limited access to higher education due to cultural limitation and distance [44,45]. Previous research found that having higher education was a predictor of good GSE [12].

4.4. Limitations

This study presents some limitations. First, cross-sectional design is usually associated with an information bias related to self-reported data. Second, limited family assessment tools validated in Arabic language bounded the researchers' choice [31,38]. Unless BCFQL-AR was reputable in assessing the FQOL of children with disabilities, it was also used for families with healthy children [39,40]. Third, in cross-sectional studies reverse causality cannot be excluded, which is the present case. Nevertheless, this study used a validated and reliable scale to assess the GSE and a random sampling method with a representative sample size recruited from multiple centres. These facts produced robust results that can be generalizable.

4.5. Implications to Practice

This study addressed a substantial topic of maternal health that is less developed in lower-middle-income countries, particularly in North Africa. Importantly, GSE is a modifiable trait. This study suggested that satisfaction with FQOL, material/physical wellbeing and parenting are predictive factors of GSE in pregnant women who have at least one child. Considering the short and

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long-term impact of low GSE on maternal and new-born health, there is an urgent need for implementing novel interventions like prenatal family-oriented programs for this population. These interventions should be multidisciplinary, including midwives, physicians, and psychotherapists, and must address how to adjust FQOL, material wellbeing, and parenting accordingly to the family needs. In this context, future research can develop and implement prenatal family-oriented programs for pregnant women and their families. Midwives in similar regions are called to integrate GSE screening strategies into prenatal care plan, to develop active listening, and to provide tailored guidance for pregnant women to enhance their GSE. This should be a key focus for healthcare providers aiming to support both maternal and family outcomes during pregnancy. These strategies and interventions, along with a holistic care plan, can interestingly favour healthier decision-making of pregnant women leading to reduced complications during pregnancy and maternal mortality. Randomized-controlled trials are recommended to assess causal factors and to understand the impact of FQOL on GSE of pregnant women who have at least one child.

5. Conclusions

This magnitude of low GSE in pregnant women was relatively high, especially in those who have at least one child. The current findings suggested that pregnant women with at least one child, who were not satisfied with their FQOL, parenting style and physical/material well-being, were likely to have lower GSE level. This emphasized the crucial role of family-oriented care planning for pregnant women. Midwives are called to integrate GSE screening strategies into prenatal care plan and to provide tailored guidance for pregnant women. This study supports researchers to conduct experimental studies to identify the causal effect of FQOL on GSE through implementing multidisciplinary prenatal family-oriented programs addressing FQOL, material wellbeing, and parenting accordingly to the family needs.

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Abbreviations

The following abbreviations are used in this manuscript:

FQOL	Family quality of life
GSE	General self-efficacy

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