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Determinants Affecting Reproduction Among University Youth Who're Getting Married in Jordan an Applied Study of the University of Jordan Students

Hind Khaled Sarayreh[1], Nesreen Nabil Atieh[2], Ayed Mohammad Taran[3*], Hamzeh Mohammad Bani-Khaled[3]

[1] Department of Geography, University of Jordan, Amman 11942, Jordan
[2] Department of Social Work, University of Jordan, Amman 11942, Jordan
[3] Department of Applied Geography, Al al-Bayt University, Al-Mafraq 130040, Jordan

Corresponding Author Email: Taran@aabu.edu.jo

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ABSTRACT

The research aims to identify the most important environmental, economic, and social factors influencing reproduction among university youth, in addition to identifying the statistical significance of the impact of these factors on reproduction among this group of Jordanian society. The descriptive approach is applied to suit the objectives of the research. The scale that the researchers created to gather data was used in the study. The research sample was chosen randomly, at an error level of 0.05, from the undergraduate students at the University of Jordan in the scientific and humanities colleges, who were 381 male and female students, for the academic year 2023-2024 for the first time. The statistical methods used in the research are summarized as follows: Calculate frequency and proportions to identify the social characteristics of participants. To confirm the validity of the questionnaire's internal structure and item distribution based on dimensions, Pearson correlation coefficients were calculated for each research tool item and its corresponding dimensions. It was shown from the results that the most influential environmental factor in the desire to have children among young people, from the point of view of the University of Jordan students, is their feeling of fear for their children when thinking that they will live in an unhealthy environment, as this factor received a high level, and that the most preferred social factor is understanding the partner before having children, and their fear of not agreeing after marriage limits their thinking about having children. The study recommends the necessity of providing financial and social support to couples who wish to have children and face economic challenges.

1. INTRODUCTION

Population is considered the main focus around which many studies revolve, especially those related to development and planning. Here, economic and social policies require knowledge of the characteristics related to the population, their growth rates, and their distribution, as they are among the most important and ever-changing elements. Among all of these, population issues come first among other issues and problems due to their great impact on public life and their close relationship with development [1, 2].

The relationship between population and development is an important one characterized by mutual interaction. The size of the population and its demographic characteristics affect the quality of life, the reduction of poverty, and the possible relationships between population characteristics and reproductive behaviors. Religious and Cultural Aspects: Since the majority of people in Jordan are Arab Muslims, cultural and religious influences frequently have a big impact on how people reproduce. Conventional wisdom, religious convictions, and social conventions can impact choices about getting married, starting a family, and how many kids you want. Academic Achievement: The level of education attained by people of university age may have an impact on their reproductive decisions. As people concentrate on their academic and professional goals, higher education may cause them to put off getting married and starting a family. Financial Elements: Family planning decisions can be influenced by employment opportunities and economic stability. People may put off having children until they feel financially secure due to financial difficulties. Reproductive health is accessible. The outcomes of many relevant conferences, such as the Conference on Population and Development in 1994, emphasized the necessity of international cooperation in population and development issues, such as the right of couples to decide freely and responsibly on the size of their families and the spacing between births and to obtain the necessary education to achieve these goals. Reproduction, in this case, is an inbuilt role that the Almighty designed for this existence and is connected to several social, economic, and health-related aspects [3].

Reproduction is affected by many environmental, economic, and social factors among university youth who are getting married. Reproduction decisions are particularly complex due to many different factors, so it is necessary to understand the factors influencing reproduction decisions among university

youth. The current research shows some of the factors that can affect reproduction among this important group of society, as environmental factors, which are determined by climate changes [4], are important influences on many different aspects of individuals' lives, including reproductive health and reproductive decision-making, as climate change may lead to an increase in the frequency and severity of environmental-related disasters, such as (Floods, droughts, hurricanes, large forest fires, and the use of biological weapons that lead to environmental pollution) which can cause severe damage to communities and infrastructure, often leading to forced migration, displacement, loss of income, food insecurity, and a feeling of insecurity.

In such circumstances, young people may delay or reconsider having children due to concerns about the safety and well-being of their families. Also, air pollution is a major environmental problem in many countries, including Jordan. In addition, concerns about the health and well-being of children in polluted environments may lead young people to delay having children or have fewer, as stated in the thirteenth goal of sustainable development, "Take urgent action to combat climate change and its impacts" [5]. The importance of the relationship between climate change and population reproductive health and the necessity of identifying research sources that measure the extent of the impact of climate change on women's reproductive health were highlighted. In order to ensure that the Supreme Council of Population keeps pace with modern issues that may have an impact on women's reproductive health in the short and long term, the Supreme Council of Population launched this policy that links climate change to women's reproductive health for the first time in Jordan, in order to reduce the impact of the negative psychological and physical effects that may arise from the climate change that the world has been witnessing for years, and whose manifestations have begun to appear more clearly in the last two decades, by monitoring these changes and their impact on reproductive health in the short and long term according to the available information and data that serve this topic [5]. Therefore, this research aims to determine the determinants affecting reproduction among university youth who are getting married in Jordan.

Jordan witnessed a noticeable decline in the total fertility rate during the period (1990-2018), as shown in Table 1, where the rate of change in total fertility during 28 years reached 2.9 children/woman. Total reproduction is considered the most influential factor in population change, which in turn affects the average family size, which decreased from (6.2) individuals, according to the results of the Population and Housing Census in 1994, to (4.8) individuals in 2015.

Table 1. Total reproduction rate in Jordan during the period 1990-2018

Year	Reproduction Rate of Child/Woman
1990	5.6
1997	4.4
2002	3.7
2007	3.6
2009	3.9
2012	3.5
2018/2019	2.7

Source: Population and Family Health Survey in Jordan 2008-2019.

Therefore, the research problem lies in the necessity of understanding the attitudes of young people who're getting married towards reproduction by revealing the influence of some factors on this, which are limited to environmental, social, and economic factors, which are among the factors most influential on the decline in reproduction rates. According to what has been reported in the theoretical literature and previous studies [4, 6], it is therefore necessary to identify the factors that most influence the attitudes of university youth in Jordan towards reproduction.

Understanding the study's emphasis on reproduction among college-age individuals undoubtedly requires an understanding of Jordan's national context. The social, cultural, and economic aspects have a big impact on how people reproduce, especially young people who are enrolled in universities.

Young people represent an unprecedented opportunity for their countries and their region. In this regard, there are many potential benefits if sufficient investment is made in the demographic dividend of the region. Thus, the region will flourish when young people are empowered to make informed choices about their lives, including their sexual and reproductive health and rights, and participate significantly as key agents of positive change to achieve sustainable development while promoting peace, security, and prosperity for their countries.

By highlighting the research problem, it seeks to answer the main two questions:

1. What are the attitudes of university youth who are getting married towards having children in Jordan?
2. What factors can affect this?

Based on the foregoing, the current study aims to achieve the following:

1) Identify the environmental, economic, and social factors affecting reproduction among university youth.

2) Reveal the significance of the impact of environmental, economic, and social factors on reproduction among university youth.

3) Reach the significance of the differences in the viewpoints of university youth who're getting married regarding the level of environmental, economic, and social factors affecting reproduction among university youth, depending on some of the personal and demographic characteristics of the study participants.

Three sets of policies have been put forth in a "Policy Document" regarding the demographic opportunity in Jordan that HPC has published to realize the potential benefits of this opportunity. The first set of policies focuses on measures to quicken the demographic transition and make the demographic opportunity more quickly realized. These policies target driving investment in fertility reduction through reproductive health and family planning and coordination with the various sectors that raise local communities' awareness regarding the social and health benefits of family health and family planning (including non-Jordanians who reside outside of refugee camps). Among the many tactics Jordan can use to lessen demographic pressure and slow population growth is family planning, which will help the country meet its development objectives and take advantage of the demographic opportunity.

2. RESEARCH QUESTIONS

The main question is:

- What are the most important environmental, economic, and social factors affecting reproduction among

university youth?

Several questions branch out from the main question:

1) What are the most important environmental factors affecting reproduction among university youth?

2) What are the most important economic factors affecting reproduction among university youth?

3) What are the most important social factors affecting reproduction among university youth?

4) Do environmental, economic, and social factors affect reproduction among university youth at a significant level (0.05)?

5) Do university youth who're getting married have different viewpoints at a significance level (0.05) regarding the level of environmental, economic, and social factors and their impact on reproduction depending on some of their social and demographic characteristics?

3. LITERATURE REVIEW

The questionnaire items were created after the most significant factors influencing childbearing among young people who are about to get married were identified through a review of earlier studies.

The current research deals with many prior relevant Arab and foreign studies, noting the lack of Arabic studies to the best of the researcher's knowledge, as follows:

Atwi, study was applied to female students at Imam Abdul Rahman bin Faisal University and University College. It aims to reveal the differences between female university students regarding reproduction, as it was found that there were no significant differences between married and unmarried participants, while differences appeared between female students with reference to the type of college (scientific or theoretical) [3].

Araban et al. [7] aimed to reveal the factors associated with reproductive intentions among a sample of Iranian women. 483 married women between the ages of 15 and 49 participated in the study. The study confirmed, through its results, the importance of psychological factors such as couples' satisfaction and social support in the reproduction process. It recommends that health system planners pay more attention to these factors as determinants of reproductive intention [7].

Alidousti et al. [8] addressed the social and economic factors affecting attitudes toward reproduction in Iran and the relationship between these factors and low fertility in Iran. The study sample consists of 374 single couples, aged between 15 and 49. The results show that there was no relationship at a significant level (0.05) between place of residence, housing type, size of the house, profession, education, and social class, while it was found that there was a relationship at a significant level (0.05) between gender preference, age of the husband, the time interval between births, and use of the Internet. The results indicate that the ideal number of children of young couples is affected by their living conditions, so the success of any potential population policies depends on improving the living conditions of couples.

Smith et al. [6] revealed the extent of the impact of climate change on pregnancy intentions among young women in Canada, as it has already been shown that climate change has a prominent impact on pregnancy intentions among young women in Canada, and negative climate futures and concerns about environmental sustainability have been shown to have an important impact on couples' reproductive decisions [6].

Safdari-Dehcheshmeh et al. [9] sought to identify the factors that affect delaying reproduction at the individual and societal levels, which included women's level of education, participation in the labor market, women's personal characteristics, and physical and psychological readiness. As for the factors between individuals, they included stable relationships with their spouses. At the community level, it includes supportive policies, medical achievements, and social, cultural, and economic factors [9].

Saha et al. [4] discussed the relationship between environmental factors and reproductive intentions among university students in Canada. The results show that there is a relationship between students' concern about environmental issues and their intentions to have children, in addition to the fact that environmental challenges and anxiety resulting from climate change may affect students' decisions to delay reproduction or reduce the planned number of children [4].

As for the current study, what distinguishes it from prior studies is that it deals with the most important factors influencing the decision to have children among young people who are getting married and the extent of their influence on making the decision to have children.

The present study's findings were consistent with those of earlier research, including a study by Araban et al. [7], which highlighted the significance of social factors. Hence, as determinants of reproductive intention, health system planners need to consider these factors more. A study by Smith et al. [6], for example, confirmed that couples' decisions to have children are influenced by concerns about environmental sustainability and the future of the climate, and a study by Saha et al. [4], also highlighted the significance of environmental factors.

One of the most crucial techniques in scientific research is the descriptive method, which, along with other scientific research techniques, helps to identify the phenomenon under study, place it in the appropriate context, and interpret all the surrounding circumstances. This marks the commencement of deriving study results associated with the research as well as crystallizing solutions reflected in the researcher's recommendations and proposals to resolve the controversy found within the research body. Furthermore, it takes a lot of time and work to obtain all the data and information relevant to the research phenomenon when using a particular method in the field.

4. METHODOLOGY

The descriptive analysis approach was adopted as an appropriate approach for the purposes of the research related to the determinants affecting reproduction among university youth who are getting married in Jordan, as the descriptive approach is the most appropriate because it clarifies the level of the research variables and finds differences in viewpoints among the participating individuals.

4.1 Research population and sample

The research population consisted of students at the University of Jordan and in all faculties registered in the Admissions and Registration Department for the academic

year 2023, within the bachelor's level, and their number was 46,114, male and female students. The research sample was chosen randomly from these students, as they were participants representing the sampling unit for the purposes of this research. The sample was selected according to Stephen Thompson's equation from the respondents, who numbered 381 male and female students. The selected sample constituted a percentage of (0.008) of the total study population. (381) questionnaires were distributed to the research participants through the Google Survey website, and a recovery rate of 100% was reached from the distributed questionnaires as shown in Table 2.

Table 2. Distribution of the research sample members according to their characteristic

Variable	Category	Number	%
Gender	Male	108	28.3
	Female	273	71.7
Age	18-20 years	150	39.4
	More than 20 years	231	60.6
Marital status	Single	334	87.7
	Married	30	7.9
	Divorced	17	4.5
Faculty	Science	87	22.8
	Humanities	294	77.2
Academic year	First	56	14.7
	Second	153	40.2
	Third	112	29.4
	Fourth and over	60	15.7
Place of residence	Amman	139	36.5
	Zarqa	35	9.2
	Madaba	7	1.8
	Mafraq	49	12.9
	Balqa	23	6.0
	Ajloun	5	1.3
	Ma'an	71	18.6
	Jerash	8	2.1
	Irbid	14	3.7
	Aqaba	17	4.5
	Karak	11	2.9
Address	City	220	57.7
	Countryside	79	20.7
	Badia/Camp	82	21.5
Average monthly income	Less than 500 JD	261	68.5
	500-1000 JD	83	21.8
	More than 1000 JD	37	9.7
The number of children I am thinking of having	0	60	15.7
	1-2	154	40.4
	3-4	145	38.1
	5 and more	22	5.8
	Total	381	100.0

4.2 Information sources and research tools

The research relied on the following sources to collect information:

1. Primary sources: related to the research data and on which the research results are based (the questionnaire).
2. Secondary sources: information from books, databases, and magazines (Arabic and foreign) in the Jordanian Arabic database and outside electronic libraries.

4.3 Research tool

Based on previous theoretical literature related to the determinants affecting reproduction among university youth who are getting married in Jordan, a questionnaire tool was developed, and some previous studies benefited [3, 7]. A number of measurement tools were consulted for studies examining the same field as this research and applied in some previous studies. The research scale consists of the following sections:

The first section: includes social and demographic information, gender, age, marital status, faculty, year of study, place of residence, address, average monthly income, and the number of children that students are thinking of having.

The second section: includes the environmental, economic, and social factors affecting reproduction among university youth who're getting married in Jordan, which includes the scale questions, which consist of 21 items, where several topics are addressed:

The first topic: deals with the environmental factors affecting reproduction among university youth who are getting married in Jordan and includes five paragraphs.

The second topic: is related to the economic factors affecting reproduction among university youth who're getting married in Jordan and includes seven items.

The third topic: is related to the social factors affecting reproduction among university youth who are getting married in Jordan and includes nine items.

4.4 Validity of the search tool

The validity of the tool is one of the important processes to determine whether it achieves the goal of the research and measures what it was developed for by ensuring the correctness and soundness of the linguistic formulation of the questionnaire's sections and whether these sections are related to the research topic or not. It is also verified that all sections belong to their dimensions or fields, and here their validity is verified. For the purposes of the current research. The validity of the measurement tool was determined through:

First: Face validity:

After its initial preparation, the data collection and measurement tool was presented to ten arbitrators of experts (teachers) in the Geography Department at the University of Jordan and other Jordanian universities, in addition to some specialized experts, in order to get their opinion on the validity and belonging of the sections to their dimensions and ensure that it measures what was developed. It was designed to measure it, to make an amendment to the sections, and the standard of (80%) was adopted to indicate the validity of the section, and based on the opinion of the arbitrators, the sections were changed and modified in terms of their writing and linguistic formulation for the purpose of clarifying them. The arbitrators highlighted an aspect of the desire to interact with the sections, which indicates the apparent validity of the tool.

Second: Construct validity:

Correlation coefficients were calculated using the Pearson correlation test to calculate the section score and its correlation with its dimension, as shown in Table 3.

Table 3. Pearson correlation coefficients to identify the correlation values of the measurement tool items with their dimensions (measuring the construct validity of the study scale)

Section No.	Correlation Coefficient with Dimension	Section No.	Correlation Coefficient with DImension	Section No.	Correlation Coefficient with Dimension
	Environmental factors		Economic factors		Social factors
1	.412**	1	.583**	1	.645**
2	.795**	2	0729**	2	.639**
3	.738**	3	.603**	3	.477**
4	.721**	4	.692**	4	.514**
5	.752**	5	.646**	5	.469**
		6	.676**		
		7	.762**		

**: significant at (0.01) level or less.

It is concluded that the sections of the scale belong to their dimensions with a statistical significance of less than 0.01, and this is an indication that all sections measure the properties of their dimensions and are characterized by the same properties. The correlation coefficient for all sections was higher than 0.30, which is the standard for accepting and distinguishing items [10]. This indicates the validity of the internal construct of the data collection tool.

4.5 Stability of the research tool

It is necessary to know the stability of the research tool so that the researcher can apply it other times or apply it to other research environments similar to the environment to which the scale was applied in this research. For the purposes of the current research, the researchers calculated the reliability coefficient of the tool by using the Cronbach Alpha test, where the values of the Cronbach Alpha coefficient range between 0.00 and 1.00. The value of the reliability coefficient is acceptable if it exceeds the value of 0.70, while the value of the reliability coefficient is good if it ranges between 0.75 and 0.80. Also, the value of the reliability coefficient is strong if it exceeds 0.85 [11], as shown in Table 4.

Table 4. Reliability coefficients using the Cronbach's alpha test

Research Variables	Items	Cronbach's Alpha Values
Environmental factors	5	0.732
Economic factors	7	0.795
Social factors	9	0.712
The tool as a whole	21	0.851

It is noted that the values of the reliability coefficient used for the dimensions of the research tool (Cronbach Alpha) ranged between 0.712 and 0.795, with an overall reliability coefficient of 0.851, which is considered acceptable [11].

The degree of judgment on the level of response of research individuals to research items and variables

The responses to the sections of the measurement tool through the five-Likert scale were as follows:

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

The responses to the items of the research tool were based on a five-point Likert scale (strongly agree, given a score of 5, agree, given a score of 4, neutral, given a score of 3, disagree, given a score of 2, strongly disagree, given a score of 1). The equation was applied (the highest value for the answer alternative is the lowest value or number of levels, which are 3 levels: low, medium, and high). Thus, the values of the three levels are from 1.00 to 2.33 (low), 2.34 to 3.67 (medium), and 3.68 to 5.00 (high).

5. RESULTS OF ANALYSIS AND DISCUSSION

For the purposes of answering the questions of this study, the Statistical Package for the Social Sciences (SPSS) program (Version 25) was used to analyze the data and obtain the results. The statistical methods used in the research are summarized as follows:

1. Calculate frequency and proportions to identify the social characteristics of participants.
2. Pearson correlation coefficients were calculated for the items of the research tool with their dimensions to verify the validity of the internal structure of the questionnaire and the distribution of the items according to their dimensions. The Chronbach Alpha test was also used to verify the reliability of the questionnaire.
3. To answer the research questions from the first to the third, descriptive statistics methods were used, such as arithmetic means and standard deviations, in order to know the level of participants' responses to the items on environmental, economic, and social factors, in addition to knowing the level of dispersion of responses from the values of the arithmetic means.
4. To answer the fourth research question, a one-sample t-test was used to identify the effect of environmental, economic, and social factors on reproduction among university youth who are getting married in Jordan.
5. As for the fifth research question, the MANOVA (Multiple Analysis of Variance) test was used to answer it in order to identify differences in the level of environmental, economic, and social factors affecting reproduction among university youth who're getting married, according to many demographic variables.

Results related to the main study question:

What are the most important environmental, economic, and social factors affecting reproduction among university youth?

Arithmetic means and standard deviations were calculated to identify the most important environmental, economic, and social factors affecting reproduction among university youth, as shown in Table 5.

Strongly Agree

Table 5. Results of the most important environmental, economic, and social factors affecting reproduction among university youth, in descending order

The Most Important Factors Affecting Reproduction	Arithmetic Mean	Standard Deviation	Level
Environmental factors	3.55	0.67	Medium
Economic factors	3.25	0.76	Medium
Social factors	3.21	0.60	Medium
The general arithmetic mean	3.30	0.54	Medium

In light of the data analysis, the results of Table 5 show that the environmental, economic, and social factors affecting reproduction among the university youth group were at a medium level in terms of the overall score and dimensions. The average values for the respondents ranged between 3.55 and 3.21, with an overall arithmetic mean of 3.30.

It has been shown that environmental factors affect reproduction among university youth in the first place, with a mean of 3.55 and a standard deviation of 0.67 at an average level. Secondly, economic factors came with a mean of 3.25, a standard deviation of 0.76, and an average level. Finally, the social factors that affect reproduction among university youth have a mean of 3.21, a standard deviation of 0.60, and an average level as well. Below are the results of the sub-questions of the study.

Results related to the first sub-question:

What are the environmental factors affecting reproduction among university youth?

The research calculated arithmetic means and standard deviations to verify the most important environmental factors that affect reproduction among university youth. The responses achieved in Table 6.

Table 6. Environmental factors affecting childbearing among university youth, in descending order

No.	Item	Arithmetic Mean	Standard Deviation	Ranking	Level
1	I fear for my child when I think that he is living in an unhealthy environment	4.27	0.70	1	High
5	Climate fluctuations lead to the spread of epidemics and diseases, which limits my thinking about reproduction	3.64	0.98	2	Medium
4	I prefer to immigrate to a country with a better climate that will preserve the health of my child	3.51	1.08	3	Medium
3	The quality of air and water in my local area affects my decision to have children	3.20	0.97	4	Medium
2	Climate change (cold weather, snow, rain, floods, high temperatures, etc.) affects my approach to having children	3.11	1.04	5	Medium
	Environmental factors as a whole	3.55	0.67		Medium

It is noted from the results that there is a multiplicity and diversity of environmental factors influencing reproduction among university youth who're getting married in Jordan, as the arithmetic means for the items on environmental factors influencing reproduction among university youth ranged between 4.27 and 3.11, with all items having an overall arithmetic mean that reached 3.55, which is of the average level.

Item No. 1 (I fear for my child when I think that he is living in an unhealthy environment) received the highest value among the values of the arithmetic means (4.27), with a standard deviation of 0.70, i.e., a high level. This is completely consistent with the results of some global surveys, including those conducted by the global research company Morning Consult, in which it polled that more than half of parents, or about 53%, consider that climate change affects their decision to have more children, and this is also the opinion of more than 5,000 adult parents in India, Mexico, Singapore, America, and the United Kingdom. As reported in other studies [6], climate change affects pregnancy intentions among young women in Canada; the study found that some women's expectations of a negative climate future and concerns about environmental sustainability influenced their decisions to have children.

It was followed by item No. 5 (Climate fluctuations lead to the spread of epidemics and diseases, which limits my thinking about reproduction) with a mean (3.64) a standard deviation (0.98), and an average medium.

As for item No. 2 (Climate change (cold weather, snow, rain, floods, high temperatures, etc.) affects my approach to having children), it ranked last with a mean (3.11) and a standard deviation (1.04), at a medium level. This is also consistent with the study [4], which confirms that there is widespread concern in society about environmental changes and environmental degradation. This concern may affect individuals' desire to have children, in addition to the study [12], which confirmed that awareness of environmental challenges and concern about climate change may affect students' decisions related to delaying reproduction or reducing the planned number of children.

Results related to the second sub-question:

What are the economic factors affecting reproduction among university youth?

The research calculated means and standard deviations to verify the most important economic factors that affect reproduction among university youth, and the responses achieved in Table 7.

Table 7. "Economic factors affecting reproduction among university youth" in descending order

No.	Item	Arithmetic Mean	Standard Deviation	Ranking	Level
4	Feeling job insecurity limits my thinking about having children.	3.51	1.06	1	Medium
7	The high prices of children's needs, such as: (milk, diapers, clothes, toys, etc.) limit my thinking about having children.	3.33	1.22	2	Medium
3	Unemployed and unable to have children at the present time.	3.31	1.13	3	Medium
2	I refuse to have children because of the unstable economic situation in the country.	3.30	1.08	4	Medium
6	I worry about future childcare expenses such as education and health.	3.25	1.26	5	Medium
5	Work pressures prevent me from having children.	3.05	1.09	6	Medium
1	I would rather work than have children.	3.02	1.12	7	Medium
	Economic factors as a whole.	3.25	0.76		Medium

According to the results revealed related to the economic factors affecting reproduction among university youth, it is noted from Table 7 that the arithmetic means for the items on the economic factors affecting reproduction among university youth ranged between 3.51 and 3.02, where all the items received a total arithmetic mean of 3.25, at an average level.

Item No. 4 (Feeling job insecurity limits my thinking about having children) had the highest mean, reaching 3.51 with a standard deviation of 1.06, i.e., a high level. It is followed by item No. 7 (the high prices of children's needs, such as milk, diapers, clothes, toys, etc., limit my thinking about having children) with a mean (3.33) and a standard deviation (1.22) and also at a medium level.

As for item No. 1 (I would rather work than have children), it ranked last, with a mean of 3.02 and a standard deviation of 1.12, at the medium level.

This indicates that economic factors affect the desire to have children among young people, and this is consistent with the results of the study [9], which confirms through the recommendations the need to take political measures and implement them, such as improving economic conditions, increasing social confidence, providing adequate social protection, employment, and supporting families using strategies such as creating family-friendly laws, to reduce the sense of insecurity felt by couples and contribute to a better reproductive plan. There are also other studies that consider that factors affecting the timing of reproduction for men and women include financial stability and the partner's suitability for parenthood [13]. The results of other studies indicate that the ideal number of children in young couples is affected by their living conditions, so the success of any potential population policies depends on improving the living conditions of couples [14].

Results related to the third sub-question:

What are the social factors affecting reproduction among university youth?

Arithmetic means and standard deviations were calculated to identify the most important social factors that affect reproduction among university youth, and the responses achieved in Table 8.

In light of the multiplicity and diversity of social factors influencing reproduction among university youth who're getting married in Jordan, it is clear from Table 8 that the arithmetic means for the items on social factors influencing reproduction among university youth ranged between 4.48 and 2.26, and here all the items obtained a total arithmetic mean of 3.21, with a medium level.

Item No. 8 (I prefer to understand my partner before having children) obtained the highest value among the values of the arithmetic means (4.48), with a standard deviation of (0.76), that is, at a high level, and this is consistent with the study of Araban et al. [7], which emphasizes the importance of psychological factors such as marital satisfaction and social support in reproduction. The result of this, from the researchers' point of view, may be due to the socialization of young people, as previous experiences within a family that lacks understanding between spouses affect the nature of young people's thinking about the importance of achieving understanding and harmony between spouses before thinking about having children. Therefore, health system planners should pay more attention to these factors as determinants of reproductive intention, as many studies have revealed that there is a relationship between social and demographic factors and reproductive rates.

Enhancing women's status, empowering them in society, raising their level, and working to reduce the gap between them and men can reinforce women's health and their role in making the decision to have children [15].

It is followed by item No. 9 (Fear of disagreement after marriage limits thinking about having children) with a mean (4.06) and standard deviation (0.95), which is also high, and this is consistent with the study [16], the most prominent results of which are that the presence of strong social support positively influences the timing of motherhood for women; women only feel confident and reassured when they have support from their partners, family, and society in general, which contributes to making decisions related to the timing of childbearing. Other studies show that social pressures force waiting, although postponing reproduction can cause infertility and a greater gap between generations, so the couple should be able to make their decision about the best age to have children independently, provided that it is a free and informed choice and not social pressure, but currently, this is not guaranteed for women and men in Western countries [17].

In addition, social factors, such as cultural and religious beliefs, social norms, and gender roles, can play a decisive role in shaping reproductive behavior. Major shifts in social norms, values, and behaviors are factors influencing the outlook on marriage and family life, in addition to changing gender roles and expectations towards marriage and family. Women have made significant progress in achieving greater equality in the workforce and society, and this has led to more opportunities for them to achieve their personal goals outside of traditional family roles. As a result, there has been a shift towards more equal and flexible arrangements within the family, with both partners contributing to household and child-rearing responsibilities [18].

As for item No. 3 (My partner prevents me from having children), it ranked last, with a mean (2.26) and a standard deviation (1.00), at a low level.

Results related to the fourth question:

Do environmental, economic, and social factors affect reproduction among university youth at a significant level (0.05)?

The means and standard deviations were calculated, and the one-sample t-test was used to answer this question. The results are as in Table 9.

It is clear from Table 9 that the arithmetic means of the impact of environmental, economic, and social factors on reproduction among university youth reached 3.55, 3.25, and 3.21, respectively, with an overall arithmetic mean of 3.30. These values are higher than the default arithmetic mean value (3.00). The calculated statistic t values were 15.910, 6.505, 6.826, and 11.000, respectively, which are higher values than the tabular t value, whose standard is 1.96. The results show the presence of statistically significant differences at the significance level (0.05) between the values of the arithmetic means on the sub-dimensions of the scale and the hypothetical arithmetic mean (3.00), meaning that there is an effect of environmental, economic, and social factors on reproduction among university youth.

Results related to the fifth question:

Do university youth who're getting married have different viewpoints at a significance level of 0.05 regarding the level of environmental, economic, and social factors and their impact on reproduction, depending on some of their social and demographic characteristics?

To extract the results of the fifth research question, the arithmetic means and standard deviations were calculated, and the Multiple Analysis of Variance (MANOVA) test was used to identify differences between the responses of the research sample members at the level of environmental, economic, and social factors affecting reproduction among university youth according to gender, age, income, and place of residence of the population as shown Table 10.

Table 8. "Social factors affecting reproduction among university youth" in descending order

No.	Item	Arithmetic Mean	Standard Deviation	Ranking	Level
8	I prefer to understand my partner before having children.	4.48	0.76	1	High
9	Fear of disagreement after marriage limits thinking about having children.	4.06	0.95	2	High
2	Postponing reproduction in the first three years of marriage.	3.57	1.22	3	Medium
1	The feeling of responsibility towards the family and children.	3.13	1.24	4	Medium
4	Fear of societal pressure not to have children.	3.10	1.17	5	Medium
5	Religious belief forces me to have children.	2.96	1.10	6	Medium
6	Self-actualization is more important than reproduction.	2.92	1.16	7	Medium
7	Bad experiences limit reproduction.	2.40	1.16	8	Medium
3	My partner prevents me from having children.	2.26	1.00	9	Low
	Social factors as a whole.	3.21	0.60		Medium

Table 9. One-Sample t-test to identify the impact of environmental, economic, and social factors on childbearing among university youth

	Arithmetic Mean	Standard Deviation	Calculated t value	Tabular t value	Freedom Score	Significance Level
Environmental factors	3.55	0.67	15.910	1.96	380	0.00*
Economic factors	3.25	0.76	6.505	1.96	380	0.00*
Social factors	3.21	0.60	6.826	1.96	380	0.00*
Factors as a whole 380	3.30	0.54	11,000	1.96	380	0.00*

Table 10. Arithmetic means and standard deviations to identify differences in the research sample's responses to the level of environmental, economic, and social factors affecting reproduction among university youth, which are attributed to variables of gender, age, income, and place of residence of the population

		Number	Arithmetic Mean	Standard Deviation
Environmental Factors	Male	108	3.44	0.70
	Female	273	3.59	0.65
Economic factors	Male	108	3.25	0.80
	Female	273	3.26	0.75
Social factors	Male	108	3.07	0.64
	Female	273	3.26	0.58
Factors as a whole	Male	108	3.22	0.56
	Female	273	3.34	0.53
Environmental factors	18-20 years	150	3.56	0.60
	More than 20 years	231	3.53	0.71
Economic factors	18-20 years	150	3.22	0.64
	More than 20 years	231	3.28	0.83
Social factors	18-20 years	150	3.21	0.52

Factors as a whole	More than 20 years	231	3.21	0.65
	18-20 years	150	3.29	0.43
	More than 20 years	231	3.31	0.60
Environmental factors	Less than 500 JD	261	3.62	0.66
	500-1000 JD	83	3.37	0.66
	More than 1000 JD	37	3.38	0.67
	Total	381	3.55	0.67
Economic factors	Less than 500 JD	261	3.30	0.74
	500-1000 JD	83	3.06	0.74
	More than 1000 JD	37	3.33	0.94
	Total	381	3.25	0.76
Social factors	Less than 500 JD	261	3.24	0.59
	500-1000 JD	83	3.14	0.59
	More than 1000 JD	37	3.20	0.68
	Total	381	3.21	0.60
Factors as a whole	Less than 500 JD	261	3.35	0.51
	500-1000 JD	83	3.17	0.56
	More than 1000 JD	37	3.28	0.65
	Total	381	3.30	0.54
Environmental factors	City	220	3.62	0.66
	countryside	79	3.37	0.66
	Badia/Camp	82	3.38	0.67
	Total	381	3.55	0.67
Economic factors	City	220	3.30	0.74
	countryside	79	3.06	0.74
	Badia/Camp	82	3.33	0.94
	Total	381	3.25	0.76
Social factors	City	220	3.24	0.59
	Countryside	79	3.14	0.59
	Badia/Camp	82	3.20	0.68
	Total	381	3.21	0.60
Factors as a whole	City	220	3.35	0.51
	Countryside	79	3.17	0.56
	Badia/Camp	82	3.28	0.65
	Total	381	3.30	0.54

The results show that there are apparent differences between the values of the arithmetic means of the research sample's estimates regarding the level of environmental, economic, and social factors affecting reproduction among university youth, which are due to variables of gender, age, income, and place of residence of the population. To determine the significance of the differences, the multivariate test (MANOVA) was used, the results of which are shown in Table 11.

The research results show that the values of the F statistic reached 5.329, 8.048, and 5.061, respectively, due to the impact of environmental and social factors. The total score for those factors affecting reproduction among university youth who are getting married is attributed to the gender variable. These values are statistically significant at the significance level (0.05) or less. The differences are in favor of the female category due to the increase in their arithmetic mean.

The results show that the value of the F statistic is 0.205 for the impact of economic factors on reproduction among university youth who are getting married in Jordan, which is attributed to gender. This value is not statistically significant at the significance level of 0.05 or less.

The research results also show that the values of the F statistic reached (0.382, 0.130, 0.030, 0.005), respectively, for the impact of environmental, economic, and social factors. The overall degree affecting reproduction among university youth who are getting married in Jordan is due to age, and these values are not statistically significant at the significance level of 0.05 or less.

The results show that the values of the F statistic reached 7.252, 3.759, and 5.091, respectively, for the impact of environmental and economic factors. The overall degree affecting reproduction among university youth who are getting married in Jordan is attributed to the average monthly income of the students. These values are significant at the significance level of 0.05, and according to the results of the Scheffé test for post-hoc comparisons, it was found that the source of the differences was in favor of the group of students with a monthly income of less than 500 JD. Table 10 shows this.

The results show that there are no statistically significant differences in the impact of social factors on reproduction among university youth who are getting married in Jordan, which is attributed to the variable of the average monthly income of students, as the value of the statistic (F) reached 1.772, which is a value that is not statistically significant at the significance level (0.05).

The results also show that the value of (F) reached (3.250) for the impact of social factors on reproduction among university youth who are getting married in Jordan, which is a significant value at the significance level (0.05), and according to the Scheffé test, it was found that the source of the differences was in favor of students from the desert and camp population categories. As shown in Table 11.

The results did not show any statistically significant differences at the significance level (0.05) for the impact of environmental and economic factors, and the total degree of those factors affecting reproduction among university youth who're getting married in Jordan, according to (F) values, reached (0.494, 1.722, 2.741), respectively, and these values are not significant at the significance level (0.05).

Table 11. Arithmetic means and standard deviations to identify differences in the research sample's responses to the level of environmental, economic, and social factors affecting reproduction among university youth, which are attributed to variables of gender, age, income, and place of residence of the population

Source	Dependent Variables	Sum of Squares	Freedom Score df	Mean Square	F value	Statistical Significance Sig.
Gender	Environmental_factors	2.303	1	2.303	5.329	*.022
Hotelling Trace	Economic_factors	.118	1	.118	.205	.651
(0.039)	Social_factors	2.819	1	2.819	8.048	*.005
In terms of (0.00*)	Factors_as a whole	1.429	1	1.429	5.061	*.025
Age	Environmental_factors	.165	1	.165	.382	.537
Hotline Trace	Economic_factors	.075	1	.075	.130	.719
(0.002)	Social_factors	.010	1	.010	.030	.863
In terms of (0.861)	Factors_as a whole	.001	1	.001	.005	.943
Monthly_income_rate	Environmental_factors	6.269	2	3.134	7.252	*.001
Wilks' lambda	Economic_factors	4.320	2	2.160	3.759	*.024
(0.952)	Social_factors	1.241	2	.620	1.772	.171
In terms of (0.006)	Factors_as a whole	2.874	2	1.437	5.091	*.007
Address	Environmental_factors	.427	2	.214	.494	.610
Wilks' lambda	Economic_factors	1.979	2	.990	1.722	.180
(0.980)	Social_factors	2.276	2	1.138	3.250	*.040
In terms of (0.288)	Factors_as a whole	1.547	2	.774	2.741	.066
Error	Environmental_factors	161.645	374	.432		
	Economic_factors	214.906	374	.575		
	Social_factors	130.980	374	.350		
	Factors_as a whole	105.559	374	.282		
Total	Environmental_factors	4959.280	381			
	Economic_factors	4255.898	381			
	Social_factors	4063.901	381			
	Factors_as a whole	4272.039	381			
Corrected total	Environmental_factors	170.144	380			
	Economic_factors	221.132	380			
	Social_factors	137.390	380			
	Factors_as a whole	111.092	380			

6. CONCLUSIONS

The findings of this study have unveiled key factors influencing the reproductive decisions of university youth. Firstly, the overwhelming concern among this demographic about the potential of their future children growing up in an unhealthy environment, as evidenced by a high rating of 4.25, aligns with numerous global surveys and corroborates previous research. This underscores the urgency of addressing environmental issues to ensure a healthier and sustainable future for the next generation. Secondly, the study emphasizes that the fear of discord between spouses and the desire to postpone parenthood for the sake of mutual understanding are pivotal social factors impacting the reproductive desires of university youth. These findings highlight the importance of fostering healthy relationships and open communication between partners. Such findings provide insight into the variables that influence reproductive decisions and help study anxiety about the growth environment.

The deep concern about future generations growing up in unhealthy environments is a reflection of the understanding of how important the environment and surrounding conditions are in shaping a child's personality and development. This shows how important it is for young people attending university to care about their children's future circumstances.

Furthermore, the study underscores the significant economic factor of job security as a barrier to family planning among young individuals. This highlights the need for economic support programs and policies that provide job stability to alleviate concerns and empower individuals to make informed choices regarding parenthood.

The results showed that young people's preference to understand their partner before having children and their fear of disagreement after marriage play a major role in influencing their desire to have children. Being affected by abnormal family circumstances and previous experiences causes couples to be exposed to family problems and a lack of understanding between their parents, which affects their fear of having children before understanding their life partner. The study also shows the importance of couples understanding each other in family life based on their living circumstances, which contributes to postponing the decision to have children. Couples' fear of disagreement after marriage is linked to their high expectations and their lack of acceptance of reality, social roles, and participation in family life. This is also due to technological development and the influence of social media, which is reflected in their perception of a family life far from reality.

This indicates a change in perception of marriage and family life, the search for idealism, and changing the expectations of husbands about marriage and family, in addition to women working long hours, as work helped women achieve self-realization, which has a role in influencing the roles expected by both sexes and women's fear of the idea of childbirth. So as not to lose her job, it could threaten her social status, which leads to individuals fearing disagreement after marriage and a lack of understanding of their life partner.

Based on the results, the study recommends the following:

1. Urging specialists in the family field to encourage researchers to follow developments in the factors affecting

young people's decisions to have children, with a focus on the variables that are changing.

2. Imposing mandatory rehabilitation and guidance courses for young people preparing for marriage through family reform offices linked to judges and social institutions.

3. Organizing health awareness workshops by health centers about marital examinations and physical and sexual health.

4. Directing policies towards setting flexible working hours for women while maintaining the same salary level to avoid a negative impact on the decision to have children.

5. Incorporating awareness curricula in schools for secondary school students about the value of family and procreation within the religious and social context.

6. Promote further future studies on the impact of premarital counseling on the decision to have children among young people.

7. Directing attention towards providing housing to encourage individuals to marry and have children.

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