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EDUCATION, ECONOMIC PRESSURE AND INTENTIONS FOR MARRIAGE AND PARENTHOOD: A SMALL-SAMPLE STUDY OF POSTGRADUATE STUDENTS AT QUAID-I-AZAM UNIVERSITY, ISLAMABAD

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Abstract
This article examines how postgraduate students think about marriage, family planning and parenthood, and what part they assign to education and economic circumstances. It draws on a structured questionnaire administered to 40 M.Phil. and Master's students from four faculties of Quaid-i-Azam University (QAU) in Islamabad, and is read through life-course scholarship and the theory of planned behavior. Thirty-one of the 40 respondents reported that their own marriage was being delayed, and completion of education was the most frequently chosen reason (17 respondents), ahead of low income (12) and family pressure (8). Intended family size was moderate: 14 respondents planned one or two children, 19 planned three or four, and 7 planned five or more. Thirty-five of 40 considered a gap between births necessary, most held that education should be completed before parenthood, and 30 of 40 preferred a nuclear family after marriage. These findings describe the stated attitudes and intentions of a small, non-probability group of highly educated young people; they do not describe reproductive behaviour or Pakistani youth in general. Because the source data contain internal inconsistencies, the analysis is confined to recalculated frequencies and the reported chi-square test, which could not be reproduced, is not interpreted. The article sets out what a larger, fully documented study would need to measure.

1. INTRODUCTION

Decisions about when to marry and how many children to have are made by individuals, but they are made within families, labor markets and educational systems that shape what appears feasible and respectable. In Pakistan, where the population is young and resources and public services are under strain, the intentions of educated young people matter to demographers and sociologists alike. University students are an especially informative group. They are postponing entry into the labor market, they often live away from the family home, and they are negotiating between parental expectations and their own plans.

This article asks how a small group of postgraduate students at Quaid-i-Azam University (QAU) in Islamabad think about marriage, family planning and parenthood, and what role they attribute to education. QAU recruits' students from all provinces, so its postgraduate classrooms bring together young people of varied regional, ethnic and urban or rural backgrounds. That diversity makes it a useful site for an exploratory study. It does not, however, make the students a sample of Pakistani youth, and the study makes no such claim.

The article is based on an undergraduate thesis that surveyed 40 students. The thesis posed one

central research question, on the influence of education on planned parenthood, and a set of objectives concerning the role of social institutions, young people's plans for parenthood, and similarities and differences across genders. The evidence supports a descriptive answer to the central question and, for reasons explained in Sections 4 and 5, only a partial answer to the others. The contribution is correspondingly modest and bounded: a transparent account of the stated attitudes and intentions of one group of postgraduates, located in the relevant literature, together with an explicit statement of what the data can and cannot support. The article proceeds in eight sections: a review of the literature, the theoretical framework and research questions, the data and methods, the findings, a discussion, limitations and a conclusion.

2. Literature Review

The review is organized around five themes that bear on the study's questions: the life-course account of institutions and agency; the relation between education and the timing of family formation; evidence from Pakistan and South Asia; the theory of planned behavior and fertility intentions; and the limits of intention data. Table 1 summarizes the sources and their relevance.

2.1 Life Course, Agency and The Transition to Adulthood

The life course perspective treats the timing of marriage and parenthood as shaped by institutions, social ties and individual choice together. Elder (1994) summarized this paradigm through its emphasis on historical time and place, the timing of lives, linked lives and human agency. Marshall and Mueller (2003) review its theoretical roots and distinguish approaches that stress institutional regulation of the life course from those that stress individual agency. Most contemporary accounts treat the two as complementary: individuals plan, but within institutional limits that differ by gender, class and place. For the respondents of this study, the dominant institution is higher education, whose demands on time and money bear directly on when marriage and childbearing seem possible.

A related literature describes the years between adolescence and the assumption of adult roles as a distinct period. Arnett (2000) proposed "emerging adulthood" for the late teens through the twenties, a phase marked by prolonged education, exploration and postponed commitment, though his account was formulated for industrialized societies and it's fit with Pakistani family systems needs to be established, not assumed. Billari and Liefbroer (2007) show, in a study of leaving home, that perceived age norms shape the timing of a life-course transition, a reminder that the "right time" for marriage or parenthood is socially defined and not purely personal.

2.2 Education and The Timing of Marriage and Parenthood

A large literature associates the postponement of marriage and first births with rising educational attainment. Blossfeld and Huinink (1991) asked whether women's schooling and careers affect family formation through human-capital investment or through norms of role transition, and their work established that participation in education itself is an important mechanism of delay. Lesthaeghe (2011) places postponement within the second demographic transition, in which changing values and rising aspirations are accompanied by later marriage and childbearing. For young people in education, postponement is often a matter of sequencing: finishing studies and securing income come before union formation and parenthood. Education's role is not only a matter of timing but also of access and marginality, as work on educational exclusion in Pakistan shows (Iqbal et al., 2025b).

Education is also linked to the number of children. The economic tradition holds that family size reflects the cost of children: Becker and Lewis (1973) formalized the interaction between the quantity and quality of children, whereby greater investment in each child raises the marginal cost of an additional child and tends to lower desired family size. Bongaarts (2003) argues that educational differences and fertility preferences are central to how far fertility can fall in developing countries, because less educated women tend to prefer larger families. A further question, raised by Busfield (1972), is whether the association between age at marriage and family size reflects a causal effect of

marrying later or the selection of people who plan smaller families into later marriage. A cross-sectional survey of students can show that respondents link delay and smaller families, but it cannot show which, if either, produces the other.

2.3 Pakistan and South Asia

Sathar and Casterline (1998) documented the onset of fertility transition in Pakistan, a late start compared with much of Asia, which places the intentions of today's educated young people in a country where fertility decline is still under way. Casterline, Sathar and ul Haque (2001) studied obstacles to contraceptive use in Punjab and showed that the barriers are not only a matter of attitudes but also of access, information and household context; a favourable attitude to family planning, such as that reported by the students here, therefore does not by itself imply practice. Work on women's position emphasizes regional and religious variation: Jejeebhoy and Sathar (2001) compared women's autonomy in India and Pakistan and found it to vary by religion and region, and Dyson and Moore (1983) argued that kinship structure and female autonomy shape demographic behavior in India. Regional evidence also shows that kinship norms and patriarchal authority continue to structure women's exposure to violence and their room for autonomous decision-making in Pakistan (Iqbal et al., 2026). Both bear on the question of who decides when and whom to marry, which the present survey touches only indirectly through the preference for arranged marriage and the reported pressure from family.

Evidence from neighboring societies reinforces the point that family-size decline can occur under varied conditions. Caldwell and Barkat-e-Khuda (2000) studied what they called the first generation to control family size in a rural area of Bangladesh, and Basu (1999) linked fertility decline in India to increasing gender imbalance, a reminder that smaller families can coexist with strong preferences about the sex of children. On the labor-market side, Ahmad and Azim (2010) examined the youth population and labor market of Pakistan at the micro level, which is relevant to the economic concerns that respondents here put forward as reasons for delay. These sources are regional or national in scope; none concerns postgraduate students, and the present study does not claim to extend their findings.

2.4 Theory of Planned Behavior and Fertility Intentions

The theory of planned behavior (Ajzen 1991) explains behavior through intention, which in turn depends on attitude toward the behavior, subjective norm and perceived behavioral control. It has been adapted for fertility. Liefbroer (2005) studied how perceived costs and rewards of childbearing relate to entry into parenthood, and Ajzen and Klobas (2013) set out an approach to fertility intentions based on the theory. The same family of ideas informs work on age norms and the transition to adulthood (Billari and Liefbroer 2007). Applications of this kind typically measure the theory's constructs explicitly, which the present questionnaire does not do (Section 3).

2.5 Intentions and Outcomes

Intentions are not outcomes. Morgan and Rackin (2010) examine the correspondence between fertility intentions and later behavior in the United States and treat the gap between the two as an empirical question in its own right. A survey of stated plans is therefore evidence about attitudes at one point in time, not about completed fertility. This is especially important for students whose plans may change as they finish their studies, enter the labor market and marry.

2.6 Synthesis and Contribution

Taken together, the literature leads to three expectations that guide the descriptive analysis below. First, young people in education will describe completion of education and economic security as conditions for marriage and parenthood. Second, educated respondents will, in principle, endorse planning and spacing of births, although this should not be read as evidence of contraceptive practice. Third, intended family size will be moderate and respondents will favor smaller household forms. The studies cited come largely from Europe, North America and South Asia more broadly, and few concern the stated intentions of postgraduate students in Pakistan. The contribution of this article is a transparent,

bounded description of one such group, together with a specification of what a larger study would need to measure.

Table 1. Principal sources informing the study

Source	Focus	Relevance to this study
Elder (1994); Marshall and Mueller (2003)	Life-course paradigm; institutions and agency	Frames education as an institution shaping timing of marriage and parenthood
Arnett (2000); Billari and Liefbroer (2007)	Emerging adulthood; age norms and leaving home	Timing of transitions is socially defined; fit with Pakistan to be established
Blossfeld and Huinink (1991); Lesthaeghe (2011)	Education and family formation; second demographic transition	Education participation and changing values associated with later marriage and parenthood
Becker and Lewis (1973); Busfield (1972); Bongaarts (2003)	Quantity–quality trade-off; age at marriage and family size; education and preferences	Links between education, marriage timing and family-size preferences; causation versus selection
Sathar and Casterline (1998); Casterline et al. (2001)	Fertility transition and contraceptive obstacles in Pakistan	National context; attitudes versus practice
Jejeebhoy and Sathar (2001); Dyson and Moore (1983)	Women's autonomy, kinship and demographic behaviour	Family authority and marriage decisions vary by region and kinship system
Caldwell and Barkat-e-Khuda (2000); Basu (1999); Ahmad and Azim (2010)	Family-size decline in Bangladesh and India; youth labour market in Pakistan	Regional comparison; economic pressure; sex composition of children
Ajzen (1991); Liefbroer (2005); Ajzen and Klobas (2013)	Theory of planned behaviour and fertility intentions	Analytical framework (Section 3)
Morgan and Rackin (2010)	Correspondence between fertility intentions and behaviour	Limits of intention data

Note: sources are summarized at the level of their stated topics; see the reference list for full details.

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3. Theoretical Framework and Research Questions

3.1 Theory of Planned Behaviour as a Sensitising Framework

The thesis adopts the theory of planned behavior (Ajzen 1991). In this theory, behavior is preceded by an intention, which is shaped by the person's attitude toward the behavior, by the subjective norm, meaning perceived social pressure to perform or avoid it, and by perceived behavioral control. Background factors such as demographic characteristics and the societal context influence these beliefs. Figure 1 shows how the study's questionnaire maps onto this structure.

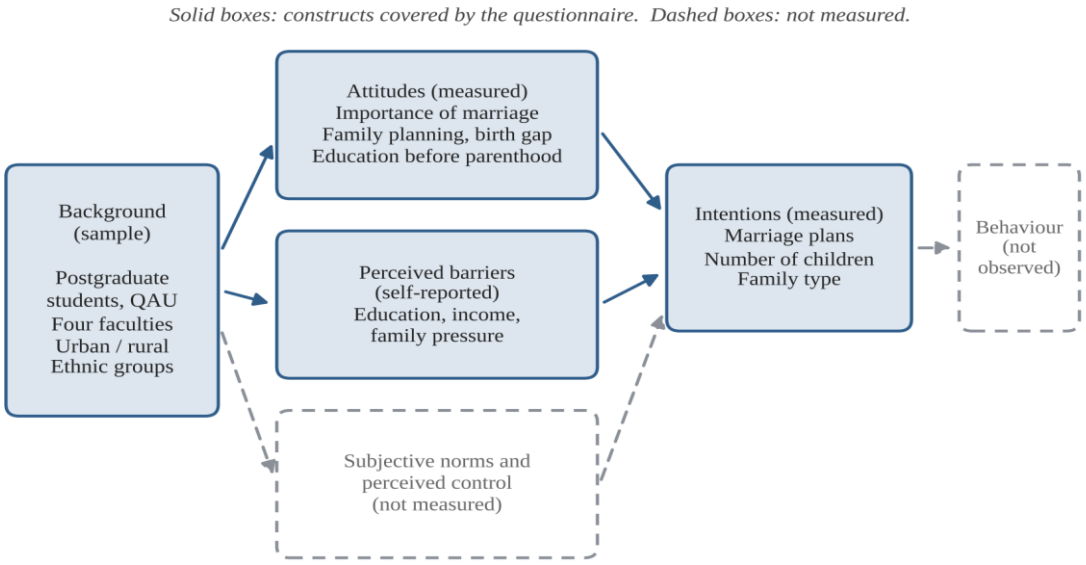


Figure 1. Analytical framework: constructs covered and not covered by the questionnaire.

Note: adapted by the author from the theory of planned behavior (Ajzen 1991). Solid boxes are constructs for which the questionnaire contains items; dashed boxes were not measured. Arrows show the assumed analytical ordering, not tested relationships.

The framework is used as a sensitizing device and not as a model that was tested. Table 2 sets out the correspondence between the theory's constructs and the questionnaire items listed in the thesis Annexure. The questionnaire asks about plans, preferences and beliefs, which correspond to attitudes and intentions; it contains no items on subjective norms and only an indirect item on perceived obstacles (reasons for delaying marriage), and it records no later behavior. The study therefore cannot evaluate whether the theory's predicted relationships hold, and none of the findings should be read as a test of it.

Table 2. Correspondence between theory constructs and questionnaire items

Construct	Questionnaire items (Annexure numbering)	Coverage
Attitude toward the behavior	Marriage as a life aim (5); gap between births (13); education and income before parenthood (14)	Partial
Intention	Planning for marriage (7); number of children planned (12); preferred family type (15)	Partial
Subjective norm	No item. Preferred marriage type (6) reflects preference but not perceived social pressure	Not measured
Perceived behavioral control	Main factor delaying marriage (11) captures perceived obstacles only	Indirect
Behavior	None	Not observed
Background factors	Gender, age, department, residence, marital status, pocket money, household size, income, ethnic background (16–26)	Described, not analyzed by subgroup

Note: the thesis also reports a table on the importance of family planning that has no matching Annexure item (Section 4.2).

3.2 Research Questions and Hypothesis

The thesis states one research question: *What is the influence of education in shaping the behavior of planned parenthood?* Its objectives are to identify the role of social institutions in planning for parenthood, to describe young people's plans for parenthood, and to identify similarities and differences in planning across genders. It also states a directional hypothesis: the more education is completed; the more likely family planning is. For this article the research question is operationalized descriptively: *what do postgraduate students say about the timing of marriage and parenthood, family size and family planning, and what role do they assign to education and economic circumstances?* The hypothesis is retained for transparency but, as Section 5.6 explains, the data cannot test it.

Planned parenthood is defined in the thesis as expectations and preparations concerning parenthood, including whether to complete education first, how many children to have, and how much space to leave between births. *Youth* is defined in the thesis with reference to the United Nations statistical definition of ages 15 to 24. This does not fit the sample well: the reported age bands run from 18 to 27 and above, and at least 20 respondents are in bands that extend beyond 24. The respondents are better described as young adults in postgraduate study, and that wording is used below.

4. Data and Methods

4.1 Design, Setting and Sample

The study is a cross-sectional questionnaire survey conducted at QAU, Islamabad. The target population was M.Phil. and two-year Master's students of both sexes. The thesis reports that the university had 13,559 students, 57 per cent women and 43 per cent men, and applies the Taro Yamane formula, $n = N / (1 + Ne^2)$ with $e = 0.05$, to obtain a recommended sample of 388, or 97 for each of four disciplinary groups: social sciences, natural sciences, biological sciences and pharmaceutical sciences. (The formula gives 388.5 for the stated population; 0.05 is a margin of error, not a confidence interval.) Because the project was a short undergraduate thesis, the researcher collected data from 40 respondents, ten from each faculty, aiming to keep the 43:57 male–female split.

The thesis describes the sampling technique as systematic random sampling but does not report a sampling frame, a sampling interval, a response rate or the way respondents within departments were chosen. With ten respondents fixed per faculty, the design resembles quota selection more than probability sampling. The findings are therefore treated as descriptive of these 40 respondents only, and no confidence intervals or population estimates are reported.

4.2 Instrument and Pre-Testing

Data were collected with a structured questionnaire of mainly closed items with some open-ended items, administered by the researcher. The Annexure lists 15 attitudinal and family-background items and a set of demographic items. Ten respondents pre-tested the questionnaire for clarity; the thesis does not say whether they were later included. Several tables in the results chapter, including those on the importance of family planning, the preferred number of sons and daughters, the one-to-two-child policy and the number of years between births, have no matching item in the Annexure, so the Annexure may be an earlier version of the instrument. These tables are treated with caution in Section 5.

4.3 Analysis

The thesis reports that data were entered and analyzed in SPSS, using descriptive statistics and a chi-square test. In this article all percentages are recalculated from the reported frequencies using N = 40 as the denominator, because the percentage columns in the thesis frequently do not match its own frequencies. Where a table's frequencies do not sum to 40, the shortfall is shown as unaccounted for and no assumption is made about the missing cases. Where the thesis gives conflicting values for the same quantity, the value adopted is marked ‡ and the alternative is given in the table note.

4.4 Ethics

The thesis states that ethical protocols of social science research were followed, including informed consent, confidentiality of respondents' identities and protection from harm. It does not report review by an ethics committee or an approval number, and this is

disclosed here as a limitation of the available documentation.

4.5 Data Note

Cross-checking the thesis tables revealed inconsistencies that bear on how far the data can be relied on: frequencies for gender (37) and age (35) that do not sum to 40; percentage columns that do not match frequencies in nearly every table; two tables with a printed total of 268; conflicting counts for whether respondents plan to have children (3 or 6 answering "no"), for the importance of family planning (31, 34 or, by implied percentage, 37 answering "yes") and for whether education should be completed before parenthood (34 or 37); a factors-in-delay table in which all 40 respondents gave a reason although only 31 said their marriage was delayed; overlapping answer categories; and a chi-square result that is arithmetically impossible for the cross-tabulation printed beside it. The analysis therefore uses recalculated frequencies only and flags every contested value. The original SPSS file and coded questionnaires should be consulted to resolve these points in any extension of the work.

5. Findings

All results are frequencies for the 40 respondents, with percentages recalculated as described above. They describe stated attitudes and intentions, not behavior.

5.1 Sample Profile

Table 3. Profile of respondents (N = 40)

Characteristic	Category	n	% of 40
Gender			
	Male	17	42.5
	Female	20	50.0
	Not accounted for	3	7.5
Age group (years)			
	18–20	5	12.5
	21–23	10	25.0
	24–26	10	25.0
	27 and above	10	25.0
	Not accounted for	5	12.5
Faculty			
	Biological sciences	10	25.0
	Natural sciences	10	25.0
	Social sciences	10	25.0
	Pharmacy	10	25.0
Residence			
	Urban	26	65.0
	Rural	14	35.0
Marital status			
	Single	30	75.0
	Married	8	20.0
	Divorced	2	5.0
Monthly pocket money			
	12,000–15,000	10	25.0

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	16,000–20,000	21	52.5
	21,000 and above	9	22.5
Household size (persons)			
	1–5	13	32.5
	5–10 (as printed)	18	45.0
	15 and above	9	22.5
Family income			
	20,000–30,000	11	27.5
	31,000–50,000	15	37.5
	51,000 and above	14	35.0
Ethnic background			
	Punjabi	12	30.0
	Pashtun	9	22.5
	Saraiki	6	15.0
	Baloch	5	12.5
	Sindhi	5	12.5
	Gilgit-Baltistan	3	7.5

Source: author's recalculation from thesis frequencies; percentages use N = 40. The thesis prints 43 and 57 per cent for gender, which are university population shares, not sample shares. Household-size bands overlap at 5 and omit 11–14 as printed. Currency and period for pocket money and income are not stated in the thesis (presumably Pakistani rupees per month).

Table 3 shows a sample in which urban residents outnumber rural ones by nearly two to one, three in four respondents are single, and ethnic backgrounds span six groups, with Punjabi and Pashtun respondents the largest. Three respondents have no recorded gender and five no recorded age, so even these profile figures should be read with care. Ten respondents aged 27 and above fall outside the 15–24 band that the thesis adopted as its definition of youth.

5.2 Family Background

Table 4. Family background (N = 40)

Item	Category	n	% of 40
Head of family			
	Father	19	47.5
	Brother	9	22.5
	Grandfather	8	20.0
	Mother	4	10.0
Family type			
	Single-unit (nuclear)	23	57.5
	Joint	17	42.5
Number of siblings			
	1–2	8	20.0
	3–4	25	62.5
	5 or more	7	17.5

Source: recalculated from thesis frequencies; printed percentages in the thesis do not match these frequencies.

In 36 of the 40 households (90 per cent) a male relative, usually the father, is head. The thesis reads this as evidence of patriarchal decision-making authority, but the survey did not ask who decides about marriage or childbearing, so the inference goes beyond the data. Nearly three in five respondents (23 of 40) live in single-unit families, and most (32 of 40) have three or more siblings. The thesis draws from this a general claim about family-size preferences in Pakistani society, which a sample of this kind cannot support.

5.3 Marriage

Table 5. Attitudes and plans concerning marriage (N = 40)

Item	Response	n	% of 40
Marriage is an important aim of my life			
	Yes	14	35.0
	No	26	65.0
Preferred type of marriage			
	Arranged	26	65.0
	Love	14	35.0
Have ever planned for marriage			
	Yes	27	67.5
	No	13	32.5
Is your marriage being delayed?			
	Yes	31	77.5
	No	9	22.5
Main factor delaying marriage §			
	Completion of education	17	42.5
	Low income	12	30.0
	Family pressure	8	20.0
	Any other	3	7.5
Acceptable age gap, husband older (years)			
	1–3	24	60.0
	4–6	11	27.5
	7 and above	5	12.5
Acceptable age gap, wife older (years)			
	1–3	32	80.0
	4–6	5	12.5
	7 and above	3	7.5

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Source: recalculated from thesis frequencies. § All 40 respondents are recorded as giving a reason although only 31 said their marriage was delayed; the denominator for this item is therefore uncertain. The Annexure has a single age-gap item with four categories; the two age-gap tables do not match it.

Two-thirds of respondents (26 of 40) did not regard marriage as an important aim of their life, yet 27 of 40 had planned for marriage and 31 of 40 reported that their own marriage was being delayed. These results are not contradictory if the first item is read as expressing priority relative to education and career, but the wording is ambiguous and the study cannot tell which reading respondents had in mind. A majority (26 of 40) preferred an arranged marriage to a love marriage (14 of 40). Interpreting this as deference to parental authority, as the thesis does, is plausible but untested, since no item measured parental influence.

Among reasons for delay, completion of education was chosen most often (17 of 40, 42.5 per cent), followed by low income (12, 30.0 per cent), family pressure (8, 20.0 per cent) and other reasons (3, 7.5 per cent); Figure 2 shows the distribution. Education and economic circumstances together account for 29 of the 40 responses. Given the denominator problem noted under Table 5, the shares among those who actually reported delay may differ. For age differences between spouses, a gap of one to three years was most commonly considered acceptable, and more often when the wife is older (32 of 40) than when the husband is older (24 of 40); the data are too thin to interpret this contrast beyond noting that respondents accepted larger gaps when the husband is older.

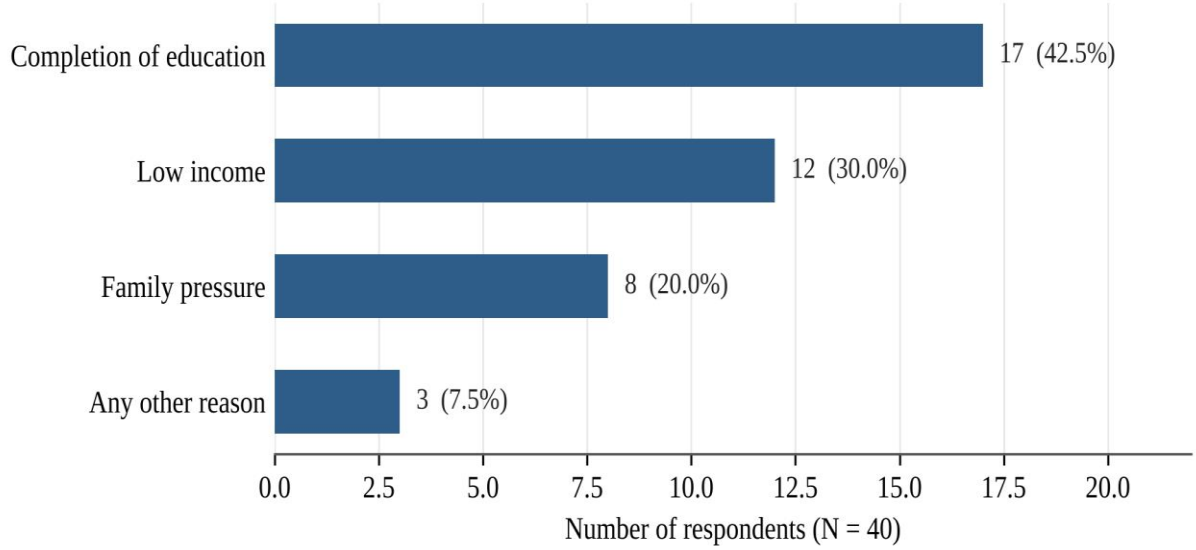


Figure 2. Main factor reported as delaying marriage (number of respondents).

Source: author's calculation from thesis frequencies; N = 40. All 40 respondents are recorded as answering although 31 reported that their marriage was delayed.

5.4 Childbearing And Family Planning

Table 6. Intentions and beliefs about childbearing and family planning (N = 40)

Item	Response	n	% of 40
Plan to have children in the future			
	Yes	37	92.5
	No	3 ‡	7.5 ‡
Number of children planned			
	1–2	14	35.0
	3–4	19	47.5
	5 or more	7	17.5
Family planning is important			
	Yes	31 ‡	77.5 ‡
	No	9 ‡	22.5 ‡
A gap between births is necessary			
	Yes	35	87.5
	No	5	12.5
Recommended gap between births (years) §			
	1–2	17	42.5
	3–4	18	45.0
	"4 and above"	5	12.5
A one-to-two-child policy would be good §			
	Yes	16	40.0
	No	21	52.5
	Maybe	3	7.5
Preferred family type after marriage			
	Nuclear	30	75.0
	Joint	10	25.0

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Source: recalculated from thesis frequencies. ‡ Conflicting values in the thesis. "No" to planning children: 6 in the table, 3 in the narrative; 3 is adopted because 37 + 3 = 40, whereas 37 + 6 = 43. Family planning: the frequency table gives 31 and 9, but its printed percentages (92.5 and 7.5) and the cross-tabulation in Section 5.6 (34 and 6) imply different figures; the frequency-table values are shown. § No matching item in the Annexure; the "4 and above" category overlaps with "3–4".

Nearly all respondents (37 of 40) expect to have children. Intended family size, shown in Figure 3a, is moderate: a third (14 of 40, 35.0 per cent) planned one or two children, almost half (19, 47.5 per cent) planned three or four, and 7 (17.5 per cent) planned five or more. Taken at face value, 26 of 40 respondents intend families of three or more children. This differs from the statement in the thesis abstract and conclusion that most students anticipate small families, which the reported frequencies do not support. It is also impossible to say how "small" should be defined, since the questionnaire used bands that do not separate one child from two.

Support for family planning and spacing is strong, with caveats about exact figures. The frequency table for the importance of family planning gives 31 of 40 (77.5 per cent); the thesis's printed percentages and its cross-tabulation imply higher values, and all versions show a clear majority endorsing it. Thirty-five of

40 (87.5 per cent) considered a gap between births necessary, and respondents were split almost evenly between recommending one to two years (17) and three to four years (18). A one-to-two-child policy was rejected by more respondents (21) than endorsed it (16), which the thesis interprets as evidence that opposition would be stronger among less educated young people. No such young people were surveyed, so that extrapolation is not supported.

In future family arrangements respondents were more inclined to nuclear than joint families (30 of 40 against 10 of 40), a larger share than the 23 of 40 who currently live in single-unit families (Figure 3b). This is a difference between stated preferences and present circumstances, not an observed change, and no test of it is possible without linked data.

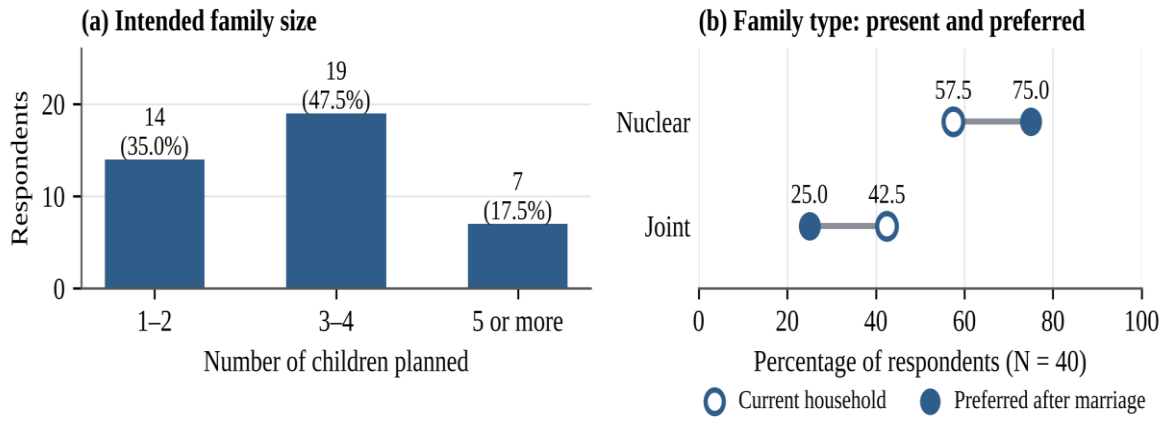


Figure 3. (a) Number of children planned; (b) family type in the respondent's present household and as preferred after marriage.

Source: author's calculation from thesis frequencies; N = 40. Panel (b) compares a current circumstance with a stated preference and does not show change over time.

Three tables in the thesis concern preferences for sons and daughters. They report that 14, 19 and 7 respondents planned one to two, three to four, and five or more sons, and 27, 11 and 2 respondents planned the same bands of daughters; the thesis concludes that son preference is strong. This article does not rely on those tables: the questionnaire has no item on the number of sons or daughters, the frequencies for sons are identical to those for the total number of children, the narrative gives a different count (31) for the highest son category, and the daughters table has a printed total of 268. No claim about son preference is made until the underlying data are checked, although the regional literature (Basu 1999) makes it an important topic for further work.

5.5 Education and The Sequencing of Parenthood

The questionnaire asked whether completion of education and earning an income are necessary before parenthood. The thesis reports 34 of 40 answering yes (85.0 per cent on recalculation, against a printed 81.3 per cent) and six answering no. The item combines two conditions, education and income, in one question, so respondents who agree with one and not the other cannot be distinguished. The cross-tabulation in Section 5.6 shows a different column total (37 and 3) for what appears to be the same question. The direction, that most respondents hold that education should precede parenthood, is the same under both counts. Figure 4 places this item alongside the other main attitudes and intentions.

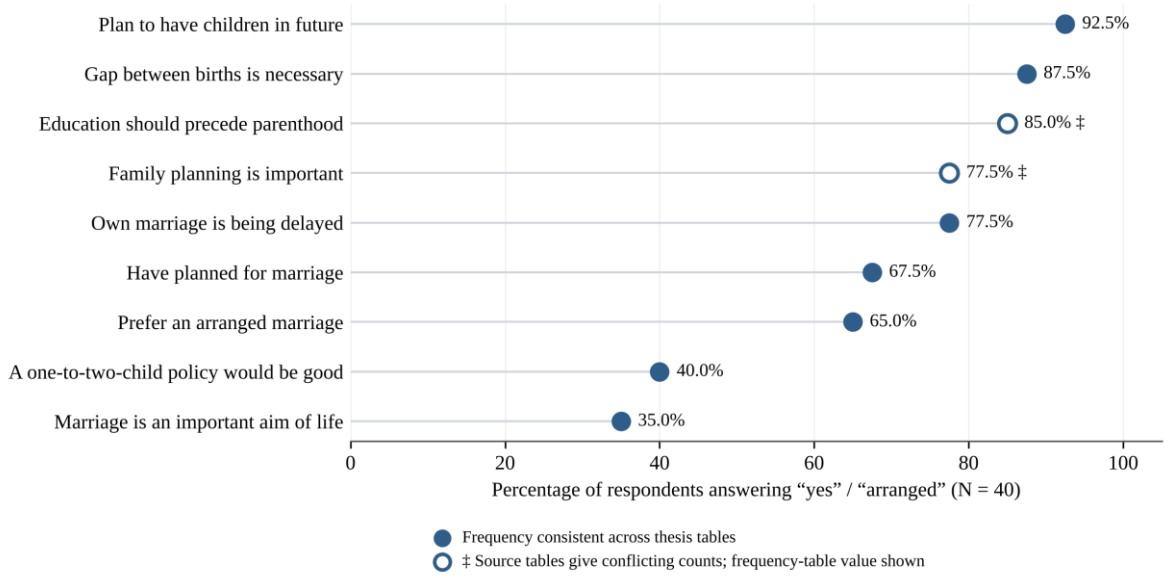


Figure 4. Share of respondents giving the affirmative response, by item.

Source: author's calculation from thesis frequencies; N = 40. Open markers (‡) indicate items for which the thesis tables give conflicting counts; the frequency-table value is shown. The marriage-type item shows the share preferring an arranged marriage.

Figure 4 shows a clear gradient. The highest levels of endorsement attach to having children, spacing births and completing education first; about two-thirds had planned for marriage or preferred an arranged one; and minority positions were that marriage is an important aim of life (14 of 40) and that a one-to-two-child policy would be good (16 of 40). These responses are consistent with the sequencing logic described in Section 2.2 but cannot be used to infer that education causes small families.

5.6 The Reported Association Test

The thesis tests its hypothesis with a chi-square test on a cross-tabulation of the importance of family planning (rows) and the necessity of completing education before parenthood (columns). The printed table is 2 × 2, with cell counts of 32, 2, 5 and 1, row margins of 34 and 6, and column margins of 37 and 3. The SPSS output printed beneath it reports Pearson χ^2 = 200.710 with 4 degrees of freedom, a likelihood-ratio χ^2 of 44.347 with 4 degrees of freedom, and $p < .001$, and notes that 7 of 9 cells (77.8 per cent) have expected counts under 5.

These results are not reliable and are not interpreted as findings. A 2 × 2 table has one degree of freedom, not four, and a nine-cell table implies a 3 × 3 cross-tabulation that is not the one printed. The Pearson chi-square for a table cannot exceed the number of cases, which is 40 here, so a value of 200.710 is impossible. Recomputing from the printed cell counts gives Pearson $\chi^2(1) = 0.85$, $p = .36$, and Fisher's exact test $p = .39$, with two of the four expected counts below five (2.55 and 0.45), which makes an asymptotic test unsuitable. This precomputation shows only that the printed output cannot be reproduced from the printed table; it is not evidence for or against the hypothesis, and the table's own margins conflict with the univariate tables (Section 5.5).

A further problem is conceptual. The hypothesis concerns completion of education, yet both variables in the cross-tabulation are attitudes, and every respondent is already a postgraduate student, so educational attainment barely varies in the sample. The data therefore cannot test whether more education leads to more family planning, even if the statistics were sound.

6. DISCUSSION

The most consistent pattern in the data is the importance respondents give to education and money in the timing of marriage. Most reported that their marriage was being delayed, and the reasons chosen most often were completing

education and low income. This agrees with the finding that participation in education is itself a mechanism of delay (Blossfeld and Huinink 1991) and with the broader association between extended education, economic insecurity and postponement (Lesthaeghe 2011). It also fits the thesis's own sequencing argument: education first, then work, then marriage and parenthood. Because respondents chose the main factor in their own situation, the finding is best read as how students explain their circumstances, not as a measure of the causes of delay. Evidence from structurally constrained settings in Pakistan similarly shows that precarity and displacement shape how individuals narrate and plan their life trajectories (Iqbal et al., 2025a). The causation-versus-selection problem raised by Busfield (1972) applies: students who intend smaller families may also be those who postpone marriage, and a cross-sectional survey cannot separate the two.

The family-size findings are less straightforward than the thesis suggests. The respondents are well disposed to family planning and birth spacing, which is consistent with educated young people treating childbearing as something to be planned. But most still intend three or more children, and about one in six intends five or more. The quantity–quality argument (Becker and Lewis 1973) and the argument that educational differences underpin fertility preferences (Bongaarts 2003) would lead one to expect smaller intended families among the highly educated; the respondents' plans do not show that pattern clearly, and the survey has no measure of investment in children or of the preferences of less educated peers against which to compare them. A comparison with respondents' own sibling counts is tempting, since 25 of 40 report three or four siblings, but it is not warranted: the categories are not equivalent, since sibling counts exclude the respondent, and no paired analysis was done. The result is consistent with a setting in which fertility decline is under way but incomplete (Sathar and Casterline 1998) and in which stated approval of planning does not translate directly into practice (Casterline et al. 2001).

The preference for an arranged marriage, the high share of male household heads and the concern with family pressure point to the continuing role of family authority. The regional literature suggests that this authority varies with kinship structure and with women's autonomy (Dyson and Moore 1983; Jejeebhoy and Sathar 2001), and qualitative work in Pakistan shows that such norms remain consequential for women's lives (Iqbal et al., 2026). The present data cannot examine that variation, because they contain no measure of who decides and no breakdown by gender. They do show that even among postgraduates the dominant stated preferences concern an arranged marriage, delay until education and income are secured, and a nuclear household, a combination that suggests negotiation within family structures rather than their abandonment. That reading is interpretive and would need qualitative or longitudinal evidence to test.

The thesis abstract and conclusion make several claims that the reported tables do not support: those urban students anticipate smaller families than rural students, that both genders and urban and rural students value family planning, that fertility decline is under way in all groups, and that urbanization, mass media and female employment explain it. No cross-tabulation by residence or gender is reported, and the questionnaire did not measure media exposure, women's employment or urbanization. These statements are therefore excluded. The study's third objective, comparing planning across genders, cannot be addressed with the reported tables. If the original dataset supports such comparisons they could be added, bearing in mind that subgroups of 10 to 20 respondents allow only cautious conclusions.

Two further points concern interpretation. First, the respondents are postgraduate students at one national university, a small and highly selected part of the Pakistani youth population, so patterns found here may differ among less educated or rural young people. The thesis makes many statements about what would happen in such groups; these are speculation, because no such respondents were surveyed. Second, the study measures stated intentions. Whether respondents will marry later, have fewer children or space births as they now say is a question for follow-up research of the kind discussed by Morgan and Rackin (2010).

7. LIMITATIONS

The main limitation is the size and nature of the sample: 40 respondents, ten per faculty, selected by a procedure that the thesis describes as systematic but does not document. The results cannot be generalized to QAU students, still less to Pakistani youth, and subgroup analysis by gender or residence is not feasible with these numbers. The second limitation is data quality: the percentage columns, several frequency totals and the reported test statistics in the thesis cannot be reconciled with one another, so the frequencies reported here, though recalculated transparently, remain subject to verification against the original data. Third, the instrument is only partly documented. Some items are double-barreled, several tables have no corresponding questionnaire item, and some answer categories overlap. Fourth, the design is cross-sectional and self-reported, with no measure of the theory's subjective-norm or perceived-control constructs, so it cannot identify causes or test the theory. Fifth, the documentation does not report review by an ethics committee. Finally, social desirability may have affected answers on sensitive topics such as marriage, family planning and the sex of children.

8. CONCLUSION

This article set out to document how a small group of QAU postgraduates think about marriage, parenthood and family planning, and what role they assign to education. Within the limits of the data, it finds that most respondents reported delayed marriage and attributed it chiefly to completing education and to low income; that most intend to have children, with plans clustered at three to four children rather than one or two; that large majorities favor spacing births and completing education before parenthood; and that most would prefer a nuclear family after marriage. These findings describe the stated attitudes and intentions of these respondents, not their behavior, and the study does not establish that education causes any of them.

The study also shows what stronger work would require: the original SPSS file and coded questionnaires checked against the thesis tables; a documented sampling frame and a larger sample; subgroup analysis by gender and residence; items measuring attitudes, subjective norms and perceived control if the theory of planned behavior is to be tested; a measure of education that varies; and, ideally, a follow-up of the same respondents. Until then, the contribution of this study is a transparent baseline, not a conclusion about Pakistani youth.

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