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Original Article

Marital Quality Trajectory among Iranian Married Individuals: A Collectivist Perspective

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Abstract

Background: The trajectory of marital quality over the life course assumes a curvilinear pattern and declines over time. However, most studies to date have been conducted in developed societies, leaving the generalizability of their findings open to skepticism. In this study, we aimed to delineate the trajectory of marital satisfaction in Iran.

Methods: Using cluster-sampling method, representative sample of 800 Iranian married individuals from urban areas of seven provinces of Iran, between February and May 2011 was surveyed. Each cluster included 50 households. Sealed packages containing survey material were delivered to households. Self-administered surveys included a checklist collecting demographic and socioeconomic data, and the Comprehensive Marital Satisfaction Scale. Generalized additive models (GAM) were used to explicate the trajectory of marital satisfaction over marital duration.

Results: A total of 644 complete questionnaires were returned (response rate: 80.5%). Average age of the participants was 40yr and average duration of marriage 17yr. The fitted GAM showed that marital satisfaction is highest at the beginning but drastically declines over the first 10yr. After arriving a nadir, the downward progression is reversed in the next 10-15yr, reaching a level comparable to the beginning. At 23-25yr, a second declining wave initiates and marital satisfaction steadily declines thereafter. The overall shape remains the same after adjustment for number of children, economic status, and retirement.

Conclusion: Marital trajectory assumes a curvilinear pattern and has three periods of decline, stagnation, and decline. The shape of trajectory bears similarities to the observed patterns in the US but is distinct, nevertheless.

Keywords: Collectivist culture, Marital Quality, Marital Relationship over time, Marital Trajector

Introduction

Marital satisfaction is a major determinant in overall happiness of the individual and an unhappy marriage could profoundly affect one's physical and mental well-being (1-4). For this reason, years of research have been dedicated to understanding marital satisfaction and its contributing factors. In particular, numerous studies in the past decades have focused on the trajectory of marital quality over time using cross-sectional, and cohorts of married couples. Although there is a consensus that marital satisfaction assumes a curvilinear pattern across life course, its exact shape has been a matter of extensive debate. Early studies have provided evidence in favor of a U-shaped curve; that is, marriage quality declines in the first half of marriage and then takes an upturn during the second half (5-7). Subsequent studies, however, have cast doubt on the existence of a U-shaped curve and have suggested that marriage quality consistently declines over the life course, albeit the pace of decline varies between early and late periods (8-10).

The majority of studies to date have largely focused on middle class families of developed coun-

tries and studies investigating the trajectory of marital quality in the context of less developed countries with a collectivist background are lacking. Racial and cultural background significantly influences marital satisfaction (11-13).

The collectivist culture of Iran is heavily influenced by its religious background surpassingly woven with its ancient tribal traditions. Despite globalization trends observed in the past few decades in the country, notable differences in family structure with developed societies are yet identifiable and studying marriage quality in such context would significantly add to our understanding of dynamics of marriage as well as discernible cultural differences.

Given the knowledge gap in this regard, the present study was conducted to delineate the trajectory of marital satisfaction in a nationally representative sample of Iranian individuals in intact first marriages.

Materials and Methods

Participants

In the present study, a cluster-sampling scheme was designed to randomly select couples in households across seven provinces of Iran. These seven provinces were Tehran, Sistan-Baluchestan, Khuzestan, Esfahan, Mazandaran, Ardebil, and Kurdistan and were chosen to be representative of the country's diverse socioeconomic profile. Between February and May 2011, a total of eight clusters of 50 households each representing one province (with the exception of Tehran for which two clusters were allocated) were sampled. Sampling was limited to the urban areas of each province and rural areas were not included. In the first step of sampling, the range of postal codes in the urban area of each province was collected from the postal service and was fed into randomization software. Based on randomly generated codes for each cluster, the corresponding household was visited the next day and two sealed packages (one for the husband and one for the wife) were delivered. Neighboring households in the area of the randomly chosen household were then approached and the research crew delivered similar packages to each couple. Delivering packages was continued until the goal of 50 households was met. Households were excluded if the primary resident of the house was not married, was under 18 years of age, had been divorced, or his/her spouse was not living in the same place.

The sealed packages contained a brief introduction describing the purpose and nature of the study along with a user-friendly guideline on how to complete each questionnaire. A consent form was also included in each set and the respondent was asked to sign the form after reading the introduction section. The guideline clearly asked the respondents to complete the forms at the comfort of their homes, but independently of each other. At the time of delivery, a next visit at the time convenient for the couple was scheduled and the research crew picked up the completed forms. Completed questionnaires used in the present study were available for 644 respondents, corresponding to a response rate of 80.5%.

Ethics committee of the Behavioral Sciences Research Center of the university approved the study protocol.

Measurements

Self-administered surveys used within the context of the present study included a standard checklist collecting demographic and socioeconomic characteristics of the enrolled participants, and Blum & Mehrabian's Comprehensive Marital Satisfaction Scale (CMSS) (14).

Standard checklist. In this questionnaire, participant's date of birth, age at getting married, duration of marriage, number of children, highest level of education attained, perceived level of socioeconomic status, and job status (retired/not retired) were recorded.

Comprehensive Marital Satisfaction Scale. Comprehensive Marital Satisfaction Scale was developed by Blum and Mehrabian in 1999 and is a 35-item self-administered inventory that aims to capture the level of respondents' satisfaction with married life (14). Respondents are asked to declare their level of agreement to different statement regarding marriage and intermate interactions on a nine-point scale that ranges from -4 (strongly disagree),

to 0 (neutral), to +4 (strongly agree). Algebraic sum of the scores is then calculated to derive a total score representative of the general satisfaction with the married life. For this study, the translated version of the questionnaire was employed (15). The translated version of the instrument has been validated within a sample of 200 married individuals and has been shown to have excellent internal consistency Cronbach's alpha=0.90) (15). Additionally, validity of the instrument has also been confirmed using structural equation modeling techniques; a two factor structure model has been shown to yield an excellent fit (χ^2=77.94, degrees of freedom (df)= 61, *P*=0.071, comparative fit index (CFI)=0.98, and root mean square error of approximation (RMSEA)=0.05).

Statistical Analysis

All statistical analyses were performed suing STATISTICA version 8.0 (StatSoft Inc., Tulsa, Oklahoma).Continuous variables are presented as mean ± standard deviation (SD), and categorical variables as proportions. Generalized additive model (GAM) was used to elucidate the trajectory of marital satisfaction plotted against marital duration.

GAMs are an extension of generalized linear models that allow semi-parametric smooth functions to be fitted on data using curve splines (16). Compared with parametric linear approaches, these data-driven models had better apprehend the complex interrelationship of data that is typical of psychosocial sciences.

Baseline GAM model was constructed using marital duration as the predictor and marital satisfaction as dependent variable, adjusting for the possible confounding effects of sex, and education. Normal distribution was assumed for marital quality and the log function was considered as the link. A systematic approach was then employed to adjust for the effect of number of children, socioeconomic status, and retirement. In each step, the change in the derived curvilinear pattern was described and compared to the previous step.

In all models, degrees of freedom were automatically calculated according to the generalized cross validation rule. A *P* value < 0.05 was considered statistically significant.

Results

Baseline characteristics of study participants are presented in Table 1.

Table 1: Baseline characteristics of study participants (n-644)

Age (yr)	**39.7 ± 7.7**
Sex (female/male)	342/302
Education, n (%)	
Elementary or middle school	89 (13.8)
High school or diploma	255 (39.6)
College education or higher	300 (46.6)
Duration of marriage (years)	17.0 ± 8.2
Age at getting married (years)	22.6 ± 4.5
Number of children	2.3 ± 1.2
Socio-economic status (n, %)	
Low	42 (6.5)
Middle	405 (62.9)
High	197 (30.6)

Variables Age, Duration of marriage, Age at getting married, and Number of children are presented as mean ± SD

Mean age of participants was 40 years and ranged from 22 to 63. Response rate was slightly higher in women and women comprised 53.1% of participants in the final sample. Less than half of the

surveyed population had at least some college education. Participants were married for an average of 17 years, ranging from 1 to 38. Average number of children was 2.3 and ranged from no children, to a maximum of seven children (observed in two households). Fitted GAM smoothed spline for marital satisfaction, adjusted for sex, and level of education is presented in Fig. 1 (top left panel). A complex curvilinear pattern is identifiable (non-linear P=0.000012). According to the fitted curve, marital satisfaction is highest at the beginning of marriage but tends to decline with a sharp angle over the first 10 years. After reaching a nadir at about 10-12 years, the downward progression is reversed and satisfaction begins to recover in the next 10-15 years, ultimately reaching a level comparable to the beginning of the marriage. After about 23-25 years, a second declining wave emerges and marital satisfaction firmly declines with an unprecedented pace and continues to decline thereafter. The overall shape of the trajectory was retained after adjustment for possible confounding variables (Fig. 1, top right and bottom panels). After adjustment for number of children, economic status, and retirement the curvilinear pattern still contained the two declining periods, albeit diluted to some extent (non-linear P=0.000078).

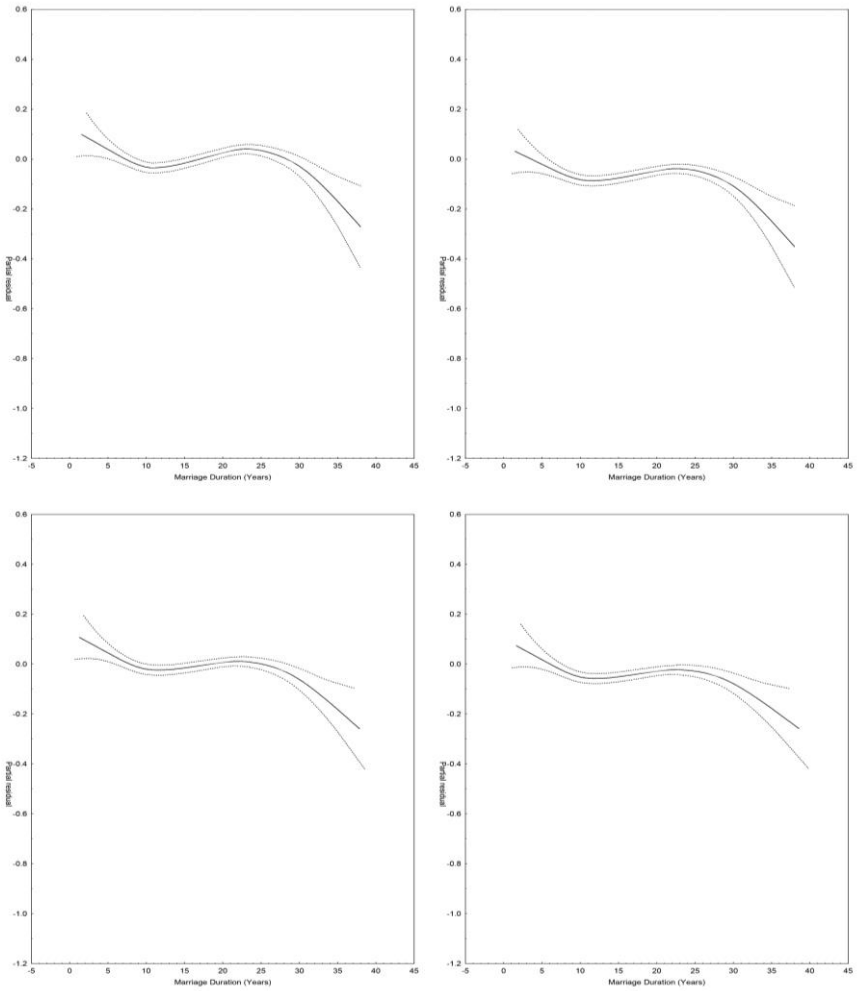

Fig. 1: Non-linear spline for marital quality
Top left panel; Marital quality as the dependent variable and marriage duration, sex, and education as independent predictors (P=0.000012 for marriage duration, calculated df=4.09). /Top right panel; adjustment for number of children (P=0.000062, calculated df=4.08) / Bottom left panel; adjustment for number of children and economic status (P=0.000042, df=4.08)/ Bottom right panel; adjustment for number of children, economic status, and retirement status (P=0.000078, df=4.08)

Discussion

To our knowledge, this is amongst the first studies to delve into trajectories of marital satisfaction in a sample of married couples selected from a traditional collectivist background. We demonstrated that marital satisfaction indeed ensue a complex curvilinear pattern and although diluted to some extent after the adjustment for possible confounders, still retains its core shape. The curvilinear pattern could be divided into three distinct periods across the married life. The first period spanning the first decade is characterized by a gradual and persistent decline in satisfaction likely due to the advent of children into the family. After a decade of decline in the first period, the second period advents. During this period, the marital satisfaction stabilizes, even leaning toward improvement. Contrarily, the final period, which begins after about 25 years, is marked by significant decline in marital satisfaction. As stated earlier, because of the cross-sectional nature of our study, no valid inferences regarding the cause of first and second waves of decline in marital satisfaction could be drawn. Nevertheless, in light of the available evidence a few likely hypotheses could be drawn. A breadth of previous studies have pointed out that the advent of children negatively impacts quality of marriage in married individuals due to role conflict, restriction of freedom, and failure to coping to the new unforeseen situation (17-21). In a meta-analysis of 90 articles consisting of 31331 subjects, parents compared with non-parents had a significantly lower level of satisfaction, albeit the effect size is relatively small and significant mediating and moderating factors are at play (18). The decline in marital satisfaction is more pronounced among parents with young offspring and high socioeconomic status (18).

From an evolutionary perspective, child rearing is an extremely energy-consuming task, which significantly shifts the previously available energy for between couple relationship to the newly formed parent-child bond. This substantial shift of resources towards the newborn alters the family dynamics so deeply and quickly that is regarded by some parents as a 'chaotic' experience (19, 22). We performed a post hoc analysis to explore whether increase in the number of children parallels the observed decline in marital quality over time. Indeed, our analyses showed that the number of children significantly and linearly increases during marriage, increasing from 0.7 ± 0.8 in individuals married for an average of two years to 2.8 ± 1.0 in individuals married for 36 to 38 years (Analysis of variance F=28.64, *P* for trend<0.001). The linear increasing trend was also evident when the analysis was confined to the first decade of marriage where the first wave of decline happens (Analysis of variance F=12.43, *P* for trend=0.001). Further, the number of children among individuals married for 5-10 years was significantly higher than among those married for less than five years (1.4 ± 0.6 versus 1.0 ± 0.4, *P*=0.32). These observations collectively suggest, albeit indirectly, the advent and number of children might be a factor in the initial decline of marital quality observed over the first decade of marriage.

Our observations on the shape of marital satisfaction trajectory among Iranian married couples bears resemblance to the derived curvilinear pattern in a cohort of US couples. VanLaningham analysis of five waves of the US national data collected over 1988-1997 confirmed that marital happiness gradually declines over the first 20 years of marriage and stabilizes thereafter (10). Despite similarities, the second declining pattern does not emerge among US couples and appears to be inherent to our sample. In our analysis, the decrease in marital quality of subjects tended to dilute after adjustment for retirement but did not completely disappear nevertheless. We hypothesize that in collectivist cultures, children might in fact exert a paradoxical effect on marital satisfaction. In other words, although advent of children poses a burden of marital bonds early in the marriage, their departure from home might confer detrimental effects in the later stages as well. Dillon and Beechler, re-evaluated Twenge hypothesis by conducting a meta-analysis of 15 studies confined to collectivist cultures (23). Based on their findings, the observed effect size for the parental role and marital quality association was significantly smaller

than previously anticipated (23). It is argued that in collectivist societies like Iran, children stay attached to their families, both financially and emotionally and their departure from home might have unfavorable consequences on family dynamics. On the other hand, in individualist cultures, independence is valued and adult children are encouraged to leave home and pursue their path when reaching adulthood. In the US, living with parents in early adulthood is actually stigmatized and is regarded as a sign of being naïve (24).

A number of limitations in our study deserve to be discussed. First, in the present study, only couples in intact marriages were included and separated or divorced couples were not enrolled. These couples often have the lowest level of marital satisfaction and failure to include them would arbitrarily skew the results toward an overestimated level of marital satisfaction (9). This is particularly relevant to the shape of the marital satisfaction trajectory in the first years of married life since breaking of marital bonds are to most likely occur during this period. Therefore, it might be argued that if divorced couples are included alongside couples in intact marriages, the declining spline would be intensify and the recovery spline would more likely transform to a flat line, if not disappeared completely. Nonetheless, we assume that the potential effect of including separated and divorced couples into the sampling pool is limited. Orbuch et al. attempted to simulate a new mean marital satisfaction score by including marriages that have likely exited the sampling pool due to low satisfaction (i.e. divorce) (21). When these new scores that take into account divorced couples replaced the original values in the model, the curvilinear pattern initially observed was again replicated; indicating that inclusion/exclusion of the divorced individuals does not significantly alter the overall shape of marital trajectory over time (21). Additionally, despite the sizable proportion of divorced couples in individualist countries like the United States (25), divorce rate in collectivist cultures is comparatively low. National reports indicate that for the year 2010, divorce-to-marriage rate among Iranian adults is 0.16, which is 3.2 times lower than the rate obtained from 44 U.S. states during the same period (26, 27). Therefore, from a statistical perspective, in Iran, unlike the US, divorced couples represent a relatively small proportion that are not likely to alter the general shape of the marital quality trajectory over time.

The second major limitation of our study relates to its cross-sectional design. Portraying the exact trajectory of marital satisfaction requires the researcher to follow up the married couple from the very beginning of the married life until the end, preferably at fixed and closed intervals. These still images taken at multiple occasions over time, could be brought together to form a motion picture that exhaustively reflects the pattern of event across the defined time course. In such a manner, the researcher is then able to reliable record the level of satisfaction in multiple points during married life, thereby demonstrating the precise contribution of relevant life events into the complex equation of marital relationship. Despite the desirability of this method, in practice, conduct of such studies is nearly impossible, requiring an extraordinary amount of resources. Long-term follow up of cohorts of married individuals is extremely time-consuming often surpassing the conventional time allocated to research projects and even the academic carrier of the researcher. Due to these predicaments, cohort studies in this regard are rarely conducted and cross-sectional studies of large sample sizes in the past few decades have formed the fundamentals of our knowledge regarding temporal changes in marital satisfaction.

A third limitation of the present report concerns with the method of survey administration. In this study, all questionnaires were self-administered. Self-administration of questionnaires might have leaded the participants to provide unreliable and inexact responses to the questions they found difficult to understand. This issue is particularly relevant since a significant proportion of the respondents (13.8%) had only completed elementary or middle school. Therefore, the literacy-barrier might have affected the quality of the data collected. However, there are certain advantages to the self-administration technique that deserve to be highlighted as well. Previous research has

shown that self-administration prevents social-desirability bias and renders the respondents more likely to disclose sensitive information (28). Since our study's aim dealt with exploring marital satisfaction and many items in the employed questionnaires were perceived as sensitive to the family, we decided to use the self-administration technique in order to obtain more accurate responses from the married individuals being surveyed.

Conclusion

Our study supports the hypothesis that marital quality declines over time, ensuing a complex curvilinear pattern. These findings indicate that despite inherent differences between individualist and collectivist societies, yet, the shape of marital quality trajectory is essentially the same in two cultures. Further longitudinal studies are paramount to elucidate meticulously the relative contribution of major life events and stressors on the shape of trajectory.

Ethical considerations

Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

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