



# Age of sexual initiation, attitudes towards sexuality, and marital relationships in adulthood<sup>1</sup>

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**Abstract:** *Introduction:* The age of sexual initiation constitutes a significant formative factor for so-called sexual scripts and is linked to the quality of intimate relationships formed in the future. Researchers indicate that early sexual debut may be associated with a risk of permissiveness and relationship instability, whereas later initiation fosters the formation of higher quality and more stable marital unions. The aim of the study was to analyze the relationship between the age of sexual initiation and the quality of marital relationships in adulthood, as well as to verify the hypothesis regarding the mediating role of attitudes towards sexuality in this process. *Method:* The study involved a group of 455 young adults (222 men and 233 women) aged 20–35 who were in marital relationships. A diagnostic survey model was employed using six standardized research tools (measuring attachment/bonding, love, communication, mate selection, sexual satisfaction, and global relationship quality) and an original questionnaire regarding attitudes and sexual biography. Correlational analyses, difference tests, and mediation analysis were used to verify the hypotheses. *Results:* The research showed that a later age of initiation co-occurs with a lower number of sexual partners and a higher level of maturity regarding attitudes towards sexuality. The direct link between the age of initiation and marital quality proved to be weak. A key finding is the confirmation of mediation: the relationship between the age of initiation and the quality of the marital relationship disappears when attitudes are taken into account, and attitudes towards sexuality play a significant mediating role in the relationship between the age of initiation and marital relationship quality. This indicates that individuals with mature attitudes (integrating the sensual sexual sphere with the emotional and evaluative ones), regardless of the age of initiation, form more satisfying relationships, although these attitudes correlate more frequently with later sexual initiation. *Conclusions:* The study revealed that the direct relationship between the age of initiation and marital relationship quality is weak and loses statistical significance after accounting for attitudes towards sexuality (mediation effect). This means that early initiation does not directly determine lower marital relationship quality in adulthood, but rather acts indirectly – through its association with the formation of immature, instrumental attitudes towards sexuality. It is these attitudes, rather than the biographical fact from the past itself, that constitute the key predictor of current marital quality, particularly in the dimensions of perceived mate selection and emotional bonding. The results suggest that the negative consequences of early initiation can be mitigated by shaping mature, integrated attitudes towards sexuality in young people.

**Keywords:** attitudes towards sexuality, marital quality, sexual initiation, sociosexuality, young adults

## 1. The role of early sexual experiences in the process of shaping attitudes toward sexuality and the quality of intimate relationships in adulthood, in light of the literature

Adolescence is a period of dynamic psychophysical changes leading from childhood to adulthood. Alongside biological (procreative) and psychological

maturation, sexual development is activated at this time, enabling the experience of sexual desire, the search for partners, and engagement in sexual behaviors with them (see Bancroft, 2019). The ability to experience sexual desire appears in boys between the ages of 10 and 16 (Beisert, 2021a), and in girls typically between the ages of 18 and 24 (Z. Lew-Starowicz, 2004). Men reach full sexual maturity in their third decade of life, while women attain it in their fourth decade (Beisert, 2021a). During adolescence, a clear discrepancy is observed: in boys, the need to

<sup>1</sup> Article in Polish language: [https://stowarzyszeniefidesetratio.pl/fer/65pl\\_komo.pdf](https://stowarzyszeniefidesetratio.pl/fer/65pl_komo.pdf)

relieve sexual tension precedes emotional development, whereas in girls, emotionality develops more rapidly than sexual needs. Only in adulthood does sexual integration occur, balancing the sensual and emotional aspects (Beisert, 2021a).

During adolescence, young people form romantic relationships in which they fulfill emotional and sexual needs (Jamison & Sanner, 2021; Kotiuga, Yampolsky, & Martin, 2022). Although engaging in genital sexual activity requires psychobiological maturity (Beisert, 2021b) as well as psychosexual maturity, which integrates sexual drive with emotionality and a system of values (Z. Lew-Starowicz, 2004), it has become increasingly common to initiate sexual intercourse before reaching this level of maturity. Although sexual debut during this period is often regarded as a developmental norm (Jee & Lee, 2020), many researchers do not doubt that the timing of sexual initiation plays a key role in psychosocial development, influencing the quality of future marital relationships. The beginning of sexual life is considered a milestone developmental event (Higgins, Trussell, Moore, & Davidson, 2010; Vasilenko, Lefkowitz, & Maggs, 2021) that may constitute a turning point in adolescents' psychological and cognitive functioning (Vasilenko, Lefkowitz, & Welsh, 2014).

Analyses indicate an acceleration in the age of sexual initiation among cohorts born between the 1920s and the 1970s, followed by a stabilization of this trend (Sprecher, O'Sullivan, Verette-Lindenbaum, & Willetts, 2021). Global trends toward a decreasing age of initiation have resulted in the current average being 16 years in most countries, and it continues to decline (Baldus et al., 2023; Jee & Lee, 2020), whereas in 2006 the average age was 18 years (Wellings et al., 2006, as cited in Bancroft, 2019). Although dynamic changes in women's sexual behavior in the 1960s and 1970s led to a leveling of sexual activity between the sexes (Bancroft, 2019), early sexual debut (before the age of 15) still occurs more frequently among boys (Költő et al., 2025).

Most adolescents aged 14–18 engage in autoerotic or partnered sexual activity (Kotiuga et al., 2022). Researchers observe varying ages of sexual initiation and classify them as early (before the age of

15–16), normative (around the age of 18 or between 15/16 and 18), and late, occurring at age 19 or later (Harden, 2012).

Early sexual experiences (before the age of 15) concern 8.9–10% of American adolescents (McClinton Appollis et al., 2021), and 20% of boys and 15% of girls in Europe, although these rates vary regionally. Among girls, the prevalence of sexual activity was 2% or less in Armenia, Kazakhstan, and Kyrgyzstan, compared with 29% in Finland and 49% in Denmark (Greenland). Among boys, the rates ranged from 5% in Kyrgyzstan to 38% in Bulgaria (WHO, 2024). An increase in sexual activity among 12–13-year-olds has also been reported in Korea (Jee & Lee, 2020; Ryu, 2023). In Poland, there are few studies on this topic. Existing, older research estimated that 27.1–27.7% of 15-year-olds had experienced sexual initiation, with a higher proportion among boys (Komorowska-Pudło, 2013; Woynarowska, 2006).

In recent years, other trends have also been observed – some adolescents are increasingly postponing sexual activity and dating, as confirmed by data from the United States (Twenge & Park, 2019) and the WHO report (2024). This decline, particularly visible over the past two decades, has been linked by researchers to the widespread use of smartphones, which, by limiting face-to-face interactions, foster a so-called “slow life strategy” and the postponement of adulthood (Twenge, 2021). A similar, slight decrease in rates of early sexual initiation across 37 countries (mainly between 2014 and 2022) was also reported by Költő et al. (2025).

In recent decades, the position of many researchers regarding the consequences of adolescent sexual activity has been changing. Although the negative effects of adolescent sexual behavior are still being examined (see Walters & Lefkowitz, 2023), a perspective that normalizes such activity or highlights its positive aspects is becoming increasingly common (Walters & Lefkowitz, 2023; Vasilenko, Walters, Clark, & Lefkowitz, 2022). However, these latter perspectives usually concern later sexual activity rather than the timing of sexual initiation itself (Vasilenko et al., 2022). Despite these shifts, analyzing the consequences of the onset of sexual life – taking into account the age at which it occurs – remains crucial.

Analyses distinguishing early (before the age of 15/16) and later sexual initiation indicate a broader range of negative consequences associated with the former (Bancroft, 2019). The consequences of early initiation encompass physical, social, and psychological domains (Walters, Lefkowitz, 2023). In the psychological dimension, they include behaviors that are congruent or incongruent with one's sense of self, as well as anxiety about social evaluation, including parents' reactions or uncertainty about a partner's feelings (Christopher, 2001, as cited in Walters, Lefkowitz, 2023), along with moral dilemmas (Vasilenko et al., 2022). Lew-Starowicz (2004) emphasizes that failures at this stage may disrupt psychosexual development and negatively affect romantic relationships and self-esteem. Boys evaluate sexual initiation significantly more positively than girls (Higgins et al., 2010; Schwartz, Coffield, 2020; Walters, Lefkowitz, 2023; Vasilenko et al., 2022). Feelings of excitement, pride, and satisfaction tend to predominate among them (Higgins et al., 2010; Schwartz, Coffield, 2020), and the sexual act itself is often treated as a confirmation of masculinity (Higgins et al., 2010), while their sexual activity is subject to less stigmatization (Conley, Klein, 2022). Among women, sexual initiation is more often associated with a predominance of negative feelings, including pain, discomfort, and less frequent satisfaction (Conley, Klein, 2022; Richters et al., 2022; Vasilenko et al., 2014; Vasilenko et al., 2022). The experience is frequently accompanied by anxiety, shame, and feelings of guilt (Vasilenko et al., 2022), regret (Boydell, Wright, Smith, 2021; Hawkins, DeLuca, Claxton, Baker, 2023; Schwartz, Coffield, 2020; Walters, Lefkowitz, 2023; Vasilenko et al., 2022), as well as fear of parents' reactions (Schwartz, Coffield, 2020) and loss of reputation (Vasilenko et al., 2022). A characteristic feature among girls is ambivalence of emotions – the co-occurrence of joy with pain, shame, or regret (Schwartz, Coffield, 2020; Vasilenko et al., 2022), while psychological satisfaction (Higgins et al., 2010) derives mainly from emotional closeness (Vasilenko et al., 2022). Early initiation of sexual activity more often results in regret due to making the decision too quickly (McClinton Appollis et

al., 2021), with feelings of regret predominating among girls (Boydell et al., 2021; Schwartz, Coffield, 2020; Sprecher et al., 2021).

A key cause of gender differences in satisfaction lies in psychobiological determinants (Conley, Klein, 2022). Men's higher ratings of pleasure result from the relative ease of achieving orgasm (Schwartz, Coffield, 2020), which in their case is an innate capacity (Z. Lew-Starowicz, 2004). In women, orgasm is a complex and often acquired phenomenon, conditioned by neuroendocrinological and psychosocial factors (bonding, sense of security, self-esteem, and older age at initiation). This process requires learning, which may be hindered, for example, by entrenched masturbatory habits, and early experiences themselves may permanently "encode" sexual responses for the future (Z. Lew-Starowicz, 2004).

Vasilenko et al. (2014) indicate that sexual behaviors – through the cognitive appraisal of one's own actions – affect mental health. Adolescents who are sexually active during puberty (especially girls) are characterized by lower self-esteem and a higher risk of depression and suicidal ideation. Early initiation also increases the risk of infections and unplanned pregnancies (Jee, Lee, 2020; Steele, Simons, Sutton, Gibbons, 2020; Xu, Norton, Rahman, 2021), which entails consequences such as abortion, early marriage, discontinuation of education, or perinatal complications (Khalili et al., 2020). A younger age at initiation further correlates with risky sexual behavior (Lu et al., 2023; Steele et al., 2020), including multiple casual partners and lack of protection (WHO, 2024), as well as exposure to relationships with HIV-infected individuals or partners who use violence (McClinton Appollis et al., 2021). Steinberg (2008) hypothesizes that engagement in risky behaviors is linked to a "developmental gap" between emotion and reason: the limbic system, driven by dopamine and sensation seeking, matures much faster than the prefrontal cortex, which is responsible for planning and impulse control. Contemporary neurobiological research supports this model (the so-called Dual Systems Model), indicating that heightened sensitivity to social reward during adolescence, combined with still-developing control mechanisms, promotes risk-taking decisions made without full awareness of their consequences

(Duell et al., 2022), which may also apply to early sexual activity. This means that adolescents already have a strongly developed need for reward, while their self-control is still under construction. Zbigniew Lew-Starowicz (2004) describes this phenomenon as psychosexual immaturity (the predominance of emotion over rationality). He emphasizes the importance of the proper development of the so-called levels of sexual drive in adolescents. Maturity of the first and second levels of sexual drive (responsible for the physiological capacity to engage in sexual intercourse, experience orgasm, and sexual arousal) is achieved during puberty, whereas maturity of the third level (responsible for integrating sex, among other things, with personality, value systems, and higher-order emotionality) is reached approximately 10 years later. According to Beisert (2021b), readiness for sexual intercourse requires psychobiological maturity, encompassing both relational competencies (intimacy, trust, knowledge) and the body's immunological capacity. The latter – manifested in chemical and mechanical barriers – is of key importance in the context of early initiation. Girls, despite later sexual debut and fewer partners, show higher infection rates than boys (Miller et al., 2004), which Vasilenko et al. (2014) explain by the specific nature of infection risk for the receptive partner.

A later age of sexual initiation is associated with a predominance of positive experiences, including higher physical and psychological satisfaction and a stronger sense of attractiveness both at the time of initiation and later in life (Higgins et al., 2010; Vasilenko et al., 2021). The beneficial psychological outcomes observed during this period (Vasilenko et al., 2021) result from less frequent risky behaviors (Steele et al., 2020) as well as greater cognitive maturity and relational competencies (Vasilenko et al., 2021). This translates into lower levels of stress (Vasilenko et al., 2021) and a reduced risk of depression (Lu et al., 2023).

The course of sexual initiation – depending on the balance of experiences – has long-term implications for future functioning and sexual well-being (Smith, Shaffer, 2013; Vasilenko et al., 2022). McClinton Appollis et al. (2021) demonstrated that regret over early sexual initiation and lower well-being are more

often reported by older women (aged 20–24) than by adolescents (aged 15–19), which results from the possibility of a more mature re-evaluation of the past. Early and negative experiences constitute predictors of health risks (Higgins et al., 2010; Smith, Shaffer, 2013), with their emotional consequences being more severe for women (Townsend, Wasserman, 2011). Considering the long-term consequences related to the formation of intimate relationships, early initiation (particularly before the age of 16) is found to correlate with lower relationship quality in adulthood (Kahn, Halpern, 2018). It increases the risk of infidelity (Vu, Tun, Karlyn, Adebajo, Ahonsi, 2011), divorce (Paik, 2011; Teachman, 2003), and premarital pregnancies (Kugler, Vasilenko, Butera, Coffman, 2017; Paik, 2011), fostering permissive attitudes (Paik, 2011) and risky partner choices (Kugler et al., 2017). Smith and Wolfinger (2024) confirm the association between the number of sexual partners – which correlates with early initiation (Kahn, Halpern, 2018) – and the risk of divorce, a relationship that Perry (2020) explains by a weakening of marital commitment in favor of a preference for sexual variety. Marital quality is also affected by the long-term consequences of sexually transmitted infections, which are correlated with early initiation and the number of partners (Kugler et al., 2017). Chlamydia and gonorrhea pose risks of infertility, ectopic pregnancy, and chronic pain. The HPV virus is responsible for cancers of the genital organs as well as the head and neck, and AIDS remains one of the leading causes of death among young adults (Bosch et al., 2002; Gray-Swain, Peipert, 2006; Heron, 2007; Gillison et al., 2008, as cited in Vasilenko et al., 2014).

The age at initiation is not merely a biographical fact but a foundation for the formation of sexual scripts – cognitive schemas that organize future experiences (Gagnon & Simon, 1973, as cited in Beisert, 2023). Because early sexual encounters create enduring interpretative frameworks (Smith, Shaffer, 2013), the timing of initiation is directly linked to the shaping of attitudes toward sexuality, which can be analyzed in the context of sociosexuality. The nature of one's sociosexual orientation (that is, the quality of attitudes toward sexuality) is, to a large extent, associated with the quality of marital relationships.

Simpson and Gangestad (1992) defined sociosexuality as a continuum ranging from a restricted orientation (investment in long-term relationships, commitment, and intimacy) to an unrestricted orientation (a pursuit of sexual behavior in short-term, non-committal relationships with multiple partners). This model was further developed by Penke and Asendorpf (2008), who identified three dimensions: behavioral (number of partners), attitudinal (evaluation of sex without love), and desire (fantasies about individuals outside the relationship). Age at sexual initiation functions as a mechanism linking biological and personality traits with attitudes defined in this way. Longitudinal research conducted in the Philippines showed that men who matured biologically earlier also initiated sexual activity earlier, which led to the development of a more unrestricted sociosexuality (Gettler, Rosenbaum, Dennis, Bechayda, Kuzawa, 2025). Similarly, when personality traits are taken into account, individuals with lower Honesty–Humility (a tendency toward manipulation) and lower Emotionality (emotional coldness) statistically begin sexual activity earlier, which fosters the consolidation of an orientation toward sex without commitment (Brazil, 2024).

An extensive sexual partner history is referred to by French, Altgelt, and Meltzer (2019) as “enduring susceptibility.” These researchers indicate that unrestricted sociosexuality is a predictor of lower marital satisfaction and its more rapid decline, as well as a higher risk of marital dissolution. Individuals with unrestricted sociosexuality are characterized by heightened sensitivity to alternatives, a lower boredom threshold, and weaker conflict-resolution competencies. Two mechanisms underlie these associations: relationship inertia (Rhoades, Stanley, 2014; Sassler, Lichter, 2020) and the cognitive availability of alternatives (Rhoades, Stanley, 2014). Early entry into relationships activates a “path dependence” mechanism and promotes “sliding” into subsequent stages (e.g., cohabitation) without deliberate commitment decisions, which lowers the quality of later marriage (Rhoades, Stanley, 2014; Sassler, Lichter, 2020). A richer partner history, in turn, intensifies the tendency to compare one’s current spouse with previous partners – both in terms

of sexual performance and physical attractiveness or communication – which weakens satisfaction and the sense of relational uniqueness (Rhoades, Stanley, 2014). An additional “partner effect” is also observed: high unrestricted sociosexuality in men reduces their partner’s satisfaction (especially during dating), although formal commitment may mitigate this effect (Webster et al., 2015). Conversely, high relationship satisfaction may inhibit sociosexual drives and the desire for infidelity (Pricope, Huțul, Karner-Huțuleac, Huțul, 2025)

According to Zbigniew Lew-Starowicz (2004), the quality of sexual initiation determines future attitudes: in line with the law of generalization, success strengthens self-esteem, whereas failure generates inhibitions. Maturity, emotional bonding, and congruence with one’s values protect against disappointment. Negative experiences may permanently encode dysfunctional patterns, leading to vaginismus and dyspareunia (Leiblum, 2005), anorgasmia (Z. Lew-Starowicz, 2021), or male orgasmic disorders (M. Lew-Starowicz, 2021). This process, explained by conditioning and script theories (Bancroft, 2019), is particularly strong in women due to the phenomenon of imprinting (Z. Lew-Starowicz, 2004).

Later initiation (after the age of 19) correlates with higher relationship quality, more deliberate partner selection (Vasilenko et al., 2022), a smaller number of partners (Harden, 2012), and more effective communication (Busby, Carroll, Willoughby, 2010; van de Bongard, de Graaf, 2020), which reduces the risk of divorce (Teachman, 2003). The restricted sociosexuality model promotes the integration of the physical, emotional, and meaning-based dimensions of sex, thereby maximizing satisfaction (Busby, Hanna-Walker, Leavitt, Carroll, 2022). The highest levels of well-being and communication quality are achieved by homogamous couples – those with convergent, conservative attitudes and a later timing of sexual initiation (Busby et al., 2010).

In summary, the age at sexual initiation is associated with the formation of cognitive matrices that determine the role of sexuality within a relationship – specifically, whether sexuality will serve as a bond strengthening the marriage or as a source of conflict and a motive for seeking gratification outside

the relationship (Willoughby, James, 2017). Early onset of sexual activity is linked to more frequent cohabitation and to treating cohabitation as a form of “testing,” while viewing marriage as a finished product rather than a process of shared growth. Willoughby and James (2017) describe this as the “Marriage Paradox,” whereby young adults, despite valuing marriage, paradoxically make its realization more difficult through early sexual initiation and serial cohabitation. The authors challenge the myth of the necessity of “testing” partners, arguing that delaying sexual debut fosters emotional competencies, making sex a “bond” that emerges from commitment rather than merely a source of physical gratification.

## 2. Methodological foundations of the author’s empirical research

The study aimed to analyze the relationship between the age of sexual initiation and attitudes toward sexuality, as well as the quality of marital relationships among young adults. The research problem was formulated as the following question: What is the relationship between the age of sexual initiation and the quality of marital relationships in adulthood, and what role do attitudes toward sexuality play in this process?

The hypothesis assumed that the age of sexual initiation is moderately associated with the quality of respondents’ marital relationships, and that attitudes toward sexuality act as a mediator: early initiation determines the formation of immature attitudes, which in turn are associated with lower quality of marital relationships.

The dependent variable was the quality of the marital relationship, measured across the domains of bonding, love, marital communication, perceived partner matching, sexual satisfaction, and overall relationship quality. The independent variable was the age of sexual initiation, while attitudes toward sexuality served as the mediating variable.

A diagnostic survey method was applied, using six standardized research instruments: Józef Szopiński’s Marital Bond Scale (1980), Robert Sternberg’s Love Measurement Questionnaire (Wojciszke, 2010), the

Marital Communication Questionnaire by Maria Kaźmierczak and Mieczysław Płopa (Płopa, 2006), the Marital Matching Questionnaire by Jan Rostowski and Mieczysław Płopa (Płopa, 2006), the Sexual Satisfaction Scale by Deborah Davis and colleagues (2006), and Graham Spanier’s Marital Quality Measurement Questionnaire (Cieślak, 1989).

Data concerning the age and partners of sexual initiation, as well as selected elements of respondents’ sexual biography, were collected using an author-designed questionnaire. Attitudes toward sexuality were measured using an original Likert-type Attitudes Scale. These attitudes were classified as mature or immature in accordance with the concept of restricted versus unrestricted sociosexuality proposed by Simpson and Gangestad (1992).

The statistical analysis was conducted using the nonparametric Spearman’s rho correlation coefficient ( $\rho$ ) to examine relationships between the age of sexual initiation and relationship quality, attitudes toward sexuality, and selected elements of respondents’ sexual biography, as well as between attitudes toward sexuality and relationship quality. In addition, the Kruskal–Wallis H test for independent samples was applied, supplemented with post-hoc multiple comparison tests using the Bonferroni correction (for analyzing differences between types of initiation partners in relation to age at initiation). Both statistically significant results and trend-level results ( $p < 0.09$ ) were taken into account due to the exploratory and unique nature of the study.

The sample was selected using a purposive, non-random sampling method. Participants were married individuals aged 20–35, born in the late 1980s and 1990s. The study included 233 women and 222 men. The mean age of men was 29.79 years, and of women 27.91 years. The average duration of marriage was 4.69 years for men and 4.19 years for women. The mean length of the relationship prior to marriage was 3.49 years for men and 3.09 years for women. The mean age of sexual initiation was 18.43 for men and 18.42 for women.

### 3. Age of sexual initiation and attitudes toward sexuality and marital relationship quality – results of the author’s study

The first step of the analysis was to determine whether the age of sexual initiation was associated with the relational context in which sexual debut occurred. The Kruskal–Wallis H test for independent samples was used, supplemented with post-hoc multiple comparison tests with Bonferroni correction. Analysis of the context of sexual initiation revealed statistically significant differences in the age of initiation depending on the type of partner, both among men ( $H = 67.09$ ;  $p < .001$ ) and women ( $H = 18.92$ ;  $p < .001$ ). The effect was substantially stronger among men ( $\epsilon^2 = 0.31$ ) than among women ( $\epsilon^2 = 0.08$ ) (Table 1).

A detailed analysis showed that men who initiated sexual intercourse with their current spouse constituted the oldest group at the time of sexual debut ( $M = 20.67$ ). Significantly younger were those who debuted in romantic relationships with partners who did not later become their spouses ( $M = 17.63$ ), while the youngest were men whose initiation occurred in non-romantic relationships (e.g., acquaintances, little-known individuals, or people newly met) ( $M = 16.98$ ). Women who experienced the onset of their sexual life with partners who are their current spouses initiated sexual activity the latest ( $M = 19.54$ ). No significant age difference

Table 2. Age at sexual initiation and other elements of respondents’ sexual biography characteristics

Characteristics of respondents’ sexual biographies	The age at sexual initiation			
	Men		Women	
	$\rho$	p	$\rho$	p
Length of the relationship before initiation	0.31	0.001	0.03	0.611
Evaluation of initiation	-0.17	0.021	-0.16	0.018
Number of partners	-0.58	0.000	-0.42	0.000
Attitudes toward sexuality	0.30	0.000	0.26	0.000

Source: Own study

was observed, however, between women debuting with a “former partner” ( $M = 18.23$ ) and those with a “casual partner” ( $M = 17.50$ ).

The age of sexual initiation was also found to be correlated with other elements of respondents’ sexual biography. Specifically, respondents’ age at sexual initiation correlated with the length of the relationship before young men decided to initiate sexual activity, with women’s adult evaluations of their sexual initiation, and with the number of sexual partners in their lifetime sexual experience (Table 2).

The results confirmed that the younger men were when they initiated sexual activity, the shorter the time they spent building their relationships and/or relational bonds with the partners of that experience ( $\rho = 0.31$ ;  $p = .001$ ). Among women, this relationship

Table 1. The relationship between age at sexual initiation and the type of initiation partner

Types of partners in sexual initiation	Respondents’ age at sexual initiation						
	N	M	SD	Me	H	p	$\epsilon^2$
<b>Men</b>							
Romantic partner – current spouse	73	20.67 <sup>a</sup>	3.11	20			
Former romantic partner	98	17.63 <sup>b</sup>	1.51	18	67.09	0.001	0.31
Non-romantic partner	51	16.98 <sup>c</sup>	2.07	17			
<b>Women</b>							
Romantic partner – current spouse	99	19.54 <sup>a</sup>	2.98	19			
Former romantic partner	110	18.23 <sup>b</sup>	2.1	18	18.92	0.001	0.08
Non-romantic partner	24	17.5 <sup>b</sup>	1.5	18			

Source: Own study. Letters a, b, c in the mean column indicate significant differences between groups (in the post-hoc test).

was not statistically significant. An earlier age of initiation was associated with a poorer retrospective evaluation of the experience among respondents of both sexes (men:  $\rho = -.17$ ;  $p = .016$ ; women:  $\rho = -.16$ ;  $p = .018$ ). A younger age at the onset of sexual activity among respondents of both sexes correlated with a higher number of lifetime sexual partners (men:  $\rho = -.58$ ;  $p < .000$ ; women:  $\rho = -.42$ ;  $p < .000$ ). The later respondents experienced their sexual debut, the longer they built their relationships before initiation, the more positively they evaluated the experience, and the fewer partners they reported in their sexual biographies.

The earlier the respondents initiated sexual activity, the lower the level of maturity of their current attitudes toward sexuality (men:  $\rho = .30$ ;  $p < .000$ ; women:  $\rho = .26$ ;  $p < .000$ ). These individuals more frequently exhibited permissive beliefs approving of casual sex and the separation of sexual and emotional spheres. A more detailed analysis of these attitudes showed that such respondents more often believed that early sexual activity does not affect the capacity for love in adulthood and that it is worthwhile to engage in sexual intercourse during adolescence. They evaluated sexual activity with multiple partners as a satisfying experience and as a means of finding

Table 3. The relationship between age at sexual initiation and the quality of respondents' marital relationships

Quality of respondents' marital relationships		Age at sexual initiation			
		Men		Women	
		$\rho$	p	$\rho$	p
Marital bond	Empathy	0.08	0.239	0.09	0.152
	Mutual understanding	0.07	0.285	0.06	0.400
	Cooperation	0.10	0.134	0.11	0.086
	Full bond	0.08	0.210	0.09	0.165
Love	Passion	0.14	0.036	-0.02	0.744
	Intimacy	0.07	0.282	0.08	0.210
	Commitment	0.11	0.090	0.12	0.079
	Full love	0.11	0.088	0.06	0.336
Communication toward spouse	Support	0.15	0.029	0.08	0.205
	Commitment	0.08	0.221	0.01	0.934
	Depreciation	-0.19	0.005	-0.06	0.384
	Full communication	0.14	0.042	0.05	0.411
Marital match	Intimacy	0.06	0.411	0.09	0.185
	Similarity	0.15	0.029	0.12	0.061
	Self-fulfilment	0.15	0.023	0.19	0.004
	Disappointment	-0.14	0.032	-0.12	0.072
	Full match	0.15	0.027	0.15	0.024
Sexual satisfaction	Physical	-0.10	0.144	-0.12	0.073
	Emotional	-0.05	0.428	-0.08	0.242
	Feeling of control	0.03	0.667	0.00	0.956
	Full satisfaction	-0.05	0.478	-0.08	0.212
Quality of relationship	Compability	0.05	0.498	0.11	0.090
	Satisfaction	0.13	0.057	0.12	0.072
	Cohesion	0.13	0.051	0.15	0.025
	Emotional expression	0.03	0.680	0.09	0.179
	Global quality	0.10	0.161	0.14	0.028

Source: Own study

a lifelong partner. Men displaying immature attitudes toward sexuality tended to treat sexual activity as a way of confirming their masculinity. Women in this group also emphasized aspects of personal development associated with engaging in sexual activity with multiple partners. Compared to those with mature attitudes toward sexuality, they more strongly endorsed sexual freedom and non-committal partnerships. The later respondents decided to initiate sexual activity, the less frequently they expressed the attitudes described above. The results indicate a highly significant relationship: the later the age of initiation, the higher the level of attitudinal maturity in adulthood.

An analysis of correlations between age at initiation and current marital quality revealed a number of associations which, although weak in terms of effect size, form a coherent pattern: earlier sexual initiation is associated with lower relationship quality (Table 3).

A low age of sexual initiation among male respondents correlated with a lower level of love measured on the passion scale ( $\rho = .14$ ;  $p = .036$ ) and, at the level of a statistical trend, with a lower level on the commitment scale ( $\rho = .11$ ;  $p = .090$ ). The lower the age at which men initiated sexual activity, the lower their level of communication with their spouses measured on the support scale ( $\rho = .15$ ;  $p = .029$ ), and the higher their level measured on the deprecation scale ( $\rho = -.19$ ;  $p = .005$ ).

Among female respondents, a low age of sexual initiation was associated, at the level of a trend, with a lower sense of partner compatibility ( $\rho = .11$ ;  $p = .090$ ), a lower level of cooperation ( $\rho = .11$ ;  $p = .086$ ), and a lower level of commitment to relationship development ( $\rho = .12$ ;  $p = .079$ ). The earlier the women initiated sexual activity, the higher – at the level of a trend – their level of physical sexual satisfaction ( $\rho = -.12$ ;  $p = .073$ ).

Among respondents of both sexes, a low age of sexual initiation was also correlated with lower scores in the domain of perceived marital matching. Individuals who initiated sexual activity early were characterized by a lower sense of self-realization in marital roles within the relationship (men:  $\rho = .15$ ;  $p = .023$ ; women:  $\rho = .19$ ;  $p = .004$ ), a lower level of perceived similarity with their spouses (men:

$\rho = .15$ ;  $p = .029$ ; women:  $\rho = .12$ ;  $p = .061$ ), and a higher level of disappointment with the marital relationship (men:  $\rho = -.14$ ;  $p = .032$ ; women:  $\rho = -.12$ ;  $p = .072$ ). These respondents also reported lower levels of overall relationship satisfaction (men:  $\rho = .13$ ;  $p = .051$ ; women:  $\rho = .12$ ;  $p = .072$ ) and a lower sense of coherence in their relationships with their spouses (men:  $\rho = .13$ ;  $p = .051$ ; women:  $\rho = .15$ ;  $p = .025$ ).

In the subsequent part of the study, an analysis was conducted of the relationship between attitudes toward sexuality and marital quality. The data on this analysis are presented in Table 4.

Although the direct relationship between age at sexual initiation and marital quality is weak, attitudes toward sexuality – which, as shown above, are related to the age of initiation – prove to be closely associated with relationship quality. Mature attitudes correlate positively with nearly all dimensions of marital functioning.

With the exception of physical sexual satisfaction and the assessment of emotional expression within the marital relationship among female respondents, the data clearly indicate that the more mature the attitudes toward sexuality held by respondents of both sexes, the more satisfying the quality of their relationship. This applies to marital bonding in the domains of empathy (men:  $\rho = .41$ ;  $p < .000$ ; women:  $\rho = .44$ ;  $p < .000$ ), mutual understanding (men:  $\rho = .34$ ;  $p < .000$ ; women:  $\rho = .38$ ;  $p < .000$ ), and cooperation (men:  $\rho = .37$ ;  $p < .000$ ; women:  $\rho = .41$ ;  $p < .000$ ), as well as to love in the domains of passion (men:  $\rho = .20$ ;  $p = .001$ ; women:  $\rho = .23$ ;  $p < .000$ ), intimacy (men:  $\rho = .35$ ;  $p < .000$ ; women:  $\rho = .33$ ;  $p < .000$ ), and commitment (men:  $\rho = .30$ ;  $p < .000$ ; women:  $\rho = .36$ ;  $p < .000$ ).

Displaying more mature attitudes is associated with a greater ability to communicate support (men:  $\rho = .40$ ;  $p < .000$ ; women:  $\rho = .36$ ;  $p < .000$ ) and commitment (men:  $\rho = .16$ ;  $p = .011$ ; women:  $\rho = .25$ ;  $p < .000$ ) toward one's spouse, along with lower levels of deprecation (men:  $\rho = -.28$ ;  $p < .000$ ; women:  $\rho = -.39$ ;  $p < .000$ ). Respondents of both sexes in this group experience greater emotional sexual satisfaction (men:  $\rho = .31$ ;  $p < .000$ ; women:  $\rho = .20$ ;  $p = .002$ ) and a stronger feelings of control (men:

Table 4. Respondents' attitudes toward sexuality and the quality of their marital relationships

Quality of respondents' marital relationships		Respondents' attitudes toward sexuality			
		Men		Women	
		$\rho$	p	$\rho$	p
Marital bonding	Empathy	0.41	0.000	0.44	0.000
	Mutual understanding	0.34	0.000	0.38	0.000
	Cooperation	0.37	0.000	0.41	0.000
	Full bond	0.38	0.000	0.42	0.000
Love	Passion	0.20	0.001	0.23	0.000
	Intimacy	0.35	0.000	0.33	0.000
	Commitment	0.30	0.000	0.36	0.000
	Full love	0.32	0.000	0.33	0.000
Communication with spouse	Support	0.40	0.000	0.36	0.000
	Commitment	0.16	0.011	0.25	0.000
	Depreciation	-0.28	0.000	-0.39	0.000
	Full communication	0.34	0.000	0.40	0.000
Marital match	Intimacy	0.28	0.000	0.36	0.000
	Similarity	0.41	0.000	0.40	0.000
	Self-realization	0.42	0.000	0.38	0.000
	Disappointment	-0.41	0.000	-0.52	0.000
	Full match	0.45	0.000	0.52	0.000
Sexual satisfaction	Physical	0.23	0.000	0.04	0.562
	Emotional	0.31	0.000	0.20	0.002
	Feeling of control	0.22	0.000	0.20	0.001
	Full satisfaction	0.30	0.000	0.16	0.011
Quality of relationship	Compability	0.23	0.000	0.21	0.001
	Satisfaction	0.50	0.000	0.38	0.000
	Cohesion	0.35	0.000	0.33	0.000
	Emotional expression	0.16	0.012	0.06	0.380
	Global quality	0.41	0.000	0.36	0.000

Source: Own study

$\rho = .22$ ;  $p < .000$ ; women:  $\rho = .20$ ;  $p = .001$ ), while men also report higher physical sexual satisfaction ( $\rho = .23$ ;  $p < .000$ ).

A higher level of maturity in attitudes toward sexuality also correlates with a stronger sense of marital matching in the areas of intimacy (men:  $\rho = .28$ ;  $p < .000$ ; women:  $\rho = .36$ ;  $p < .000$ ), perceived similarity (men:  $\rho = .41$ ;  $p < .000$ ; women:  $\rho = .40$ ;  $p < .000$ ), and self-realization (men:  $\rho = .42$ ;  $p < .000$ ; women:  $\rho = .38$ ;  $p < .000$ ), along with a lower level of disappointment in the mutual relationship (men:  $\rho = -.41$ ;  $p < .000$ ; women:  $\rho = -.52$ ;

$p < .000$ ). These spouses are characterized by higher overall relationship quality in terms of consensus (men:  $\rho = .23$ ;  $p < .000$ ; women:  $\rho = .21$ ;  $p = .001$ ), satisfaction (men:  $\rho = .50$ ;  $p < .000$ ; women:  $\rho = .38$ ;  $p < .000$ ), and cohesion (men:  $\rho = .35$ ;  $p < .000$ ; women:  $\rho = .33$ ;  $p < .000$ ), with men additionally showing higher quality in emotional expression ( $\rho = .16$ ;  $p = .012$ ).

The comparison of the data presented in Tables 3 and 4 reveals a clear disparity: attitudes toward sexuality are much more strongly associated with marital quality than age at sexual initiation itself.

Consequently, the final stage of the study involved testing the hypothesis that attitudes mediate the relationship between age at sexual initiation and marital quality. A regression analysis (Baron and Kenny’s mediation model) was conducted for the relationship quality indicators. The aim of this analysis was to examine whether the mediating role of attitudes toward sexuality also applies to specific areas of marital functioning: bonding, love, communication, perceived partner matching, sexual satisfaction, and overall relationship quality (for these analyses, global scores from each scale measuring the respective area of relationship functioning were used).

To verify the hypothesis regarding the mediating role of attitudes toward sexuality in the relationship between age at sexual initiation and marital functioning, a series of regression analyses was conducted following the logic of a mediation model. Analyses were performed separately for women and men. The independent variable (X) was age at sexual initiation, the mediator (M) was attitudes toward sexuality, and the dependent variables (Y) were the relationship quality indicators: bonding, love, communication, perceived partner matching, sexual satisfaction, and overall relationship quality.

Table 5 presents standardized regression coefficients for the paths: a (X → M), b (M → Y controlling for X), and c’ (X → Y after including M). In addition, point estimates of the indirect effect (ab = a × b) and the total effect (c = c’ + ab) were calculated. The total effect was treated as an auxiliary indicator of the overall strength of the relationship. The values of ab and c are presented as effect sizes based on standardized β coefficients.

The obtained results indicate a consistent pattern of relationships in both study groups and are consistent with the interpretation that the association between age at sexual initiation and marital relationship quality may operate primarily through an indirect mechanism related to attitudes toward sexuality. In all analyzed models, a positive and significant association was observed between age at initiation and attitudes toward sexuality (path a; β approximately 0.30–0.37; p < 0.001), indicating that a later age at initiation co-occurs with more mature attitudes. At the same time, attitudes toward sexuality were positively and significantly related to each of the analyzed indicators of marital relationship quality (path b; β = 0.15–0.57).

Table 5. Attitudes toward sexuality as a mediator of the relationship between age at sexual initiation and marital relationship quality – results of mediation regression analyses

Dependent variable (Y)	Sex	a (X→M) β	b (M→Y) β	c’ (X→Y) β	ab (indirect effect)	c (total effect)
Marital bond	Men	0.37***	0.47***	-0.10 ns	0.18	0.07
	Women	0.30***	0.32***	0.01 ns	0.10	0.11
Love	Men	0.37***	0.37***	-0.06 ns	0.14	0.08
	Women	0.30***	0.23**	0.03 ns	0.08	0.11
Marital communication	Men	0.37***	0.37***	-0.06 ns	0.14	0.08
	Women	0.30***	0.30***	-0.02 ns	0.09	0.07
Sense of marital match	Men	0.37***	0.57***	-0.10 ns	0.21	0.12
	Women	0.30***	0.40***	0.03 ns	0.12	0.15
Sexual satisfaction	Men	0.37***	0.32***	-0.12 ns	0.12	0.00
	Women	0.30***	0.15*	-0.05 ns	0.05	-0.01
Overall relationship quality	Men	0.37***	0.44***	-0.05 ns	0.17	0.12
	Women	0.30***	0.33***	0.04 ns	0.10	0.14

Source: Own study. Explanations: Path a – relationship between the independent variable (age at initiation) and the mediator (attitudes); Path b – relationship between the mediator and the dependent variable (controlling for the independent variable); Path c’ – direct relationship between the independent variable and the dependent variable after including the mediator. Significance levels: \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001; ns – statistically non-significant result (p > 0.05).

An analogous pattern of relationships was observed in both groups: age at initiation was positively associated with maturity of attitudes toward sexuality (men:  $a = 0.37$ ,  $p < 0.001$ ; women:  $a = 0.30$ ,  $p < 0.001$ ), and these attitudes were positively related to each of the examined indicators of relationship quality. The strength of the mediator's association with relationship quality varied depending on the analyzed aspect, with the highest  $b$  coefficients observed for perceived marital match, especially among men ( $\beta = 0.57$ ), and the lowest for sexual satisfaction among women ( $\beta = 0.15$ ).

After controlling for attitudes toward sexuality, the direct effects of age at initiation on the dependent variables (path  $c'$ ) did not reach statistical significance in any of the analyzed models. This pattern of results is consistent with a mediation interpretation, indicating that the associations between age at initiation and relationship quality may operate mainly through attitudes toward sexuality. Due to the cross-sectional nature of the data, these conclusions are descriptive and do not allow for causal claims.

Analysis of the size of the indirect effects ( $ab$ ) indicates that the strongest indirect component concerned perceived marital match in both men ( $ab = 0.211$ ) and women ( $ab = 0.120$ ), as well as marital bond among men ( $ab = 0.174$ ). Total effects ( $c'$ ) were small (approximately 0.07–0.16), and for sexual satisfaction in both groups they were close to zero. In the model of perceived marital match among men, a discrepancy in the signs of the direct and indirect effects was observed (negative  $c'$  with positive  $ab$ ), which may indicate inconsistent mediation; however, the direct effect did not reach statistical significance.

In summary, the conducted analyses indicate that attitudes toward sexuality play an important mediating role in the relationship between age at sexual initiation and marital relationship quality. The direct association between these variables, observed in simpler analyses, disappears after accounting for attitudes, suggesting that the co-occurrence of age at initiation and relationship quality is largely related to the level of maturity of attitudes toward sexuality.

#### 4. Discussion of the results

The study aimed to analyze the relationship between age at sexual initiation and the quality of marital relationships in adulthood, with particular attention to the mediating role of attitudes toward sexuality. The obtained results allowed for a positive verification of the main research hypothesis, indicating that although the timing of sexual debut is linked with the quality of the marriage, the key mechanism explaining this relationship is the level of maturity of attitudes toward the intimate sphere. These conclusions correspond with contemporary trends in couple psychology (see Vasilenko et al., 2022), which move away from simple biographical determinism toward the analysis of complex processes underlying the development of relational competencies.

The first important finding is the demonstration of a clear association between age at initiation and the relational context of this event. The present study showed that individuals who initiated sexual intercourse later – both women and men – were more likely to do so within a relationship with a partner who later became their spouse. This result aligns with the model of “sexual restraint” described by Busby et al. (2010), who suggest that postponing initiation fosters better partner knowledge and the development of emotional intimacy prior to physical intimacy, thereby increasing the likelihood of relationship stability. Conversely, early initiation, which in the present study was correlated with engagement in risky behaviors and lower selectivity (particularly among men), confirms earlier findings by Kugler et al. (2017) regarding the specificity of early, non-romantic sexual experiences.

The analysis also confirmed previous research conclusions (WHO, 2024) that early sexual initiation co-occurs with a greater number of sexual partners across the lifespan (in the present study  $\rho = -.58$  for men) as well as with a poorer retrospective evaluation of the first sexual experience (cf. McClinton Appollis et al., 2021). This phenomenon can be explained by the theory of “availability of cognitive alternatives” proposed by Rhoades and Stanley (2014), which posits that a richer relationship history may lead to habitual comparisons between one's current spouse

and previous partners, thereby weakening the sense of uniqueness of the current relationship. Moreover, the observed association between early initiation and feelings of disappointment corresponds with findings by McClinton Appollis et al. (2021) and with the imprinting theory described by Zbigniew Lew-Starowicz (2004). According to this perspective, negative or unsatisfying first experiences may become a lasting interpretative template that makes it more difficult to derive satisfaction in later, stable relationships.

A key element of the discussion is the confirmation of the link between age at initiation and the formation of specific attitudes toward sexuality. The present study showed that earlier sexual debut correlates with immature attitudes – permissive, hedonistic, and separating the sexual sphere from the emotional one. This is consistent with the concept of unrestricted sociosexuality (Simpson & Gangestad, 1991; Penke & Asendorpf, 2008), characterized by an orientation toward a greater number of partners and sex without commitment. As French and colleagues (2019) note, such an orientation constitutes a “lasting vulnerability” that a partner brings into marriage, thereby reducing its stability. The counterpoint to this model is later initiation, which in the present study was associated with more mature attitudes, reflecting the model of integration of the physical, emotional, and meaning-related spheres described in Busby et al.’s (2022) concept of “sexual wholeness.”

Concerning the direct relationship between age at sexual initiation and marital quality, the study showed that this association is weak, although statistically significant (earlier initiation was linked, among other things, to lower marital relationship quality in terms of perceived partner match – intimacy, similarity, and self-realization – as well as satisfaction and sense of coherence, and to higher levels of relationship disappointment). This confirms reports by Kahn and Halpern (2018) and Teachman (2003) on the negative consequences of early initiation; however, the low strength of these correlations suggests that chronological age alone is not the decisive factor.

The most important contribution of this study is the empirical confirmation of the mediating role of attitudes. It was shown that the direct relationship between age at initiation and marital quality loses

significance once attitudes toward sexuality are taken into account. This means that early initiation lowers relationship quality mainly when it becomes the basis for the development of immature, instrumental sexual scripts (in the sense proposed by Gagnon and Simon, 1973, as cited in Beisert, 2023). This finding sheds new light on the mechanism of the “path-dependent” process (Sassler & Lichter, 2020): it is not so much the fact of early sexual activity that determines the future, but rather the cognitive schemas and values consolidated as a result – “cognitive matrices,” as described by Willoughby and James (2017).

Particularly noteworthy is the observation of the strongest mediation effect in the domains of perceived marital match and relational bonding. This suggests that attitudes shaped over the course of one’s sexual biography function as a filter through which spouses evaluate the fit and value of their relationship. Individuals with more mature attitudes (correlating with later initiation) demonstrate higher competencies in building closeness and communication, which supports Busby et al.’s (2010) claims about the better communicative preparedness of couples who chose to postpone intercourse. In summary, the results indicate that age at initiation acts as a “catalyst” (Willoughby & James, 2017) in the formation of attitudes that in adulthood become either a key resource or a burden for marriage.

## Conclusions

The conducted analyses lead to the conclusion that the age at which sexual life begins is not an isolated biographical fact, but rather an important element of a broader pattern of functioning in the intimate sphere, closely linked to the relational context of sexual initiation. Later initiation of intercourse more often occurs within romantic relationships and frequently involves partners who later become spouses. In contrast, early initiation of sexual life correlates with a shorter period of acquaintance before first intercourse, a more negative retrospective evaluation of the experience, and a greater number of partners across the lifespan. The study also demonstrated a moderate but consistent association between early initiation and the development of less mature atti-

tudes toward sexuality in adulthood, characterized by a hedonistic and instrumental approach and by separating the physical from the emotional sphere.

A key research finding is that the direct impact of age at initiation on marital relationship quality is weak, whereas the decisive role is played by attitudes toward sexuality that have developed over time. Mediation analysis confirmed that age at initiation affects marriage indirectly: early experiences shape certain beliefs, which only subsequently determine levels of bonding, communication, or the sense of an appropriate partner match. This means that mature attitudes toward sexuality constitute a current psychological resource with far greater potential to influence relationship well-being than the mere chronology of past events. The strongest effects of this mechanism were observed in the evaluation of perceived marital match and relational bonding, whereas sexual satisfaction proved to be a more complex and multifactorial phenomenon.

When interpreting these results, certain methodological limitations must be taken into account, including the cross-sectional nature of the study, which prevents strict causal inference, and reliance

on self-report methods, which carry a risk of bias. An additional challenge concerns the need for further validation of the instruments used, as well as the specificity of the sample selection. Accordingly, it is recommended that future research adopt longitudinal designs, which would allow the dynamics of change over time to be tracked. It would also be advisable to extend analyses to include additional control variables such as personality traits, attachment style, religiosity, exposure to pornography, and cybersex.

The conclusions drawn from this research have important implications for educational and therapeutic practice. They suggest the need to shift the focus in prevention from concentrating solely on the normative age of initiation toward supporting the development of mature, integrated attitudes toward sexuality and intimacy. For marital counseling, this means that relationship difficulties more often stem from entrenched beliefs and the way experiences are integrated than from sexual history itself. Consequently, therapeutic work should focus on understanding and modifying partners' current attitudes and on fostering relational responsibility, avoiding oversimplified judgments based solely on the past.

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