

Sexual and Contraceptive Behaviour of Adolescents and Young Adults in Germany

Results of the representative "Youth Sexuality" survey

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Abstract

Background

Since 1980, the Federal Centre for Health Education (BZgA) has been regularly conducting representative "Youth Sexuality" surveys. This continuous monitoring programme provides information regarding the sexual and reproductive health of young people in Germany. The survey provides an important basis for the development of sexuality education and family planning programmes.

Objective

The current sexual and contraceptive behaviour of adolescents and young adults will be summarized based on initial descriptive results from the 9th iteration of the survey.

Methods

A total of N=6032 adolescents and young adults participated in the survey. Data were obtained by computer-assisted personal interviewing (CAPI) in 2019.

Results

This phase primarily shows that the percentage of adolescents who are younger than 17 years of age at the time of their first sexual intercourse has been declining for the past few years. Adolescents largely used condoms for contraception, and use of the pill has decreased.

Discussion

The data obtained during the current phase indicate safe and responsible contraceptive behaviour among young people in Germany. Nevertheless, it is important to maintain our commitment in the field of sexual health support and to enhance prevention programmes for specific target groups. This is the only way to ensure the sexual and reproductive health of the next generation.

Keywords

Representative survey, Reproductive health, Sexuality education, Contraception behaviour

FIRST PUBLISHED IN GERMAN

This publication is a translation of the scientific article published first in German: Scharmanski, S., & Hessling, A. (2021, October 01). Sexual- und Verhütungsverhalten von Jugendlichen und jungen Erwachsenen in Deutschland. Aktuelle Ergebnisse der Repräsentativbefragung "Jugendsexualität". Bundesgesundheitsblatt, 64, 1372–1381. https://doi.org/10.1007/s00103-021-03426-6

Background

The German Federal Centre for Health Education (BZgA) is obliged under the Act on Assistance to Avoid and Cope with Conflicts in Pregnancy (SchKG) (the Pregnancy Conflict Act) to draw up information on sexuality education and contraception and make it available free of charge throughout the country (BZgA, 2016).

In order to comply with this legal requirement, the BZgA is developing age-appropriate media, such as the website loveline.de, providing target group-specific information materials (such as educational brochures), and supporting programmes and research in the field of sexual and reproductive health. This is based on the "Public Health Action Cycle" (PHAC), which structures health-related interventions and public healthcare programmes and places them in a systematic context (Rosenbrock & Hartung, 2015). Using the PHAC as a basis, however, requires a sound database and continuous monitoring of the needs of the target group as well as the implementation conditions.

Solid evidence is required, after all, to identify the specific needs of the target group, to shape the dialogue with this group, to verify the effectiveness, and make the necessary strategic and operational adjustments.

In this context, the BZgA has a long tradition of conducting and supporting large-scale surveys on topics related to sexual and reproductive health (BZgA, 2018; Helfferich, 2017; Wienholz et al., 2013; Matthiesen, 2013). An important monitoring tool in this context is the representative cross-sectional survey on adolescent sexuality, which has been conducted regularly since 1980 (Hessling & Bode, 2017; Hessling, 2017). These study data may be used to generate information on the current behaviour and the attitudinal patterns of adolescents and young adults in conjunction with topics related to sexuality education and contraception.

This paper presents preliminary results of the 9th iteration of the Youth Sexuality Study. The focus here is primarily on the beginning of the active sexual life, partnerships and relationships, and contraceptive behaviour among adolescents aged 14 to 17 and young adults aged 18 to 25 in Germany.

Methods

This cross-sectional survey has been repeated regularly for almost 40 years while the basic methodological framework has remained largely unchanged. The sampling system, however, had to be modified over the past 40 years, due to changing social framework conditions (e.g., after German reunification in the 1990s and increasing migration from the 2000s onward). In addition to adolescents, populations of young adults between the ages of 18 and 25 have been interviewed since 2014 as further target groups of the Youth Sexuality Study. The following sections describe the methodological approach, the samples, and the statistical survey tools used, as well as the statistical analyses of the 9th iteration of the Youth Sexuality Study.

Approach

During the 9th iteration, data were collected between May and October 2019 by Kantar GmbH using the CAPI method (computer-assisted personal interviewing) as a combination of oral and written surveys. The standard questionnaire was completed in a face-to-face interview; while more intimate questions (for instance on masturbation) were answered by the adolescents and young adults on a laptop (self-administered questionnaire).

The interview was performed in the home environment of the adolescents or young adults - mostly without the presence of third parties. With underage respondents, the parents living in the same household were present during the interview. This ensured that appropriate contact persons were theoretically available in case the adolescents wanted more in-depth information on sexuality and contraception after the survey.

Both the legal guardians and the adolescents/young adults themselves were fully informed in advance about the objective and purpose of the study and about the data processing policy. This was done verbally and in writing. Participation in the survey was possible only with the consent of the parents and the adolescents/young adults themselves. Thorough training by specialists in prior to the survey and the field institute's long-term expertise in this area ensured that the interviewers were able to conduct the survey in an age-appropriate, culturally sensitive, and empathetic manner.

TABLE 1

ATTRIBUTES OF THE SUBSAMPLE WITHOUT DESIGN WEIGHTS

Subsample	14- to 17-year-olds			18- to 25-year-olds			Total		
		n	%		n	%		n	%
Sex	Female	2024	57	Female	1580	64	Female	3604	60
	Male	1532	43	Male	896	36	Male	2428	40
Migrant	Yes	1034	29	Yes	840	34	Yes	1874	31
Background	No	2522	71	No	1636	66	No	4158	69
Level of	Basic	422	12	Basic	316	13	Basic	738	12
education	Moderat	e 1575	45	Moderat	e 728	30	Moderat	e 2303	39
	High	1500	43	High	1407	57	High	2907	49

Source: BZgA, dataset Youth Sexuality, 2019 survey

Sample

In addition to aspects of sexuality education, the main topics are contraception and family planning. Against this background, a disproportional subsample approach with relation to the gender/sex distribution was adopted as early as 1980 and more girls than boys were surveyed. This approach guarantees that - even in the case of differential analyses of individual subgroups - sufficiently large case numbers are available. Subsequent weighting of the data sets compensates for the disproportionality during the sampling, so that the results are still representative of the population (see "Statistical analyses").

During this 9th iteration of the Youth Sexuality Study, 8 disproportional subsamples were used in accordance with the random sample design principle; each of which was based on a combination of the three main criteria: gender/sex (female vs. male)¹, age group (14 to 17 vs. 18 to 25 years), and cultural background (with vs. without migrant background). N = 2024 girls and N = 1532 boys aged 14 to 17 years, as well as N = 1580 young women resp. N = 896 young men aged 18 to 25 years participated in the survey. Additional unweighted attributes of the subsamples are shown in <u>Table 1</u>. The level

of education is determined by the (desired) qualifications the study participants were/are seeking at school based on the education system in Germany

A migrant background was assumed if a youth or young adult himself or herself or at least one parent was born without German citizenship (Statistisches Bundesamt, 2021a). The target individuals were selected non-randomized according to the quota method (Cumming, 1990), whereby quota sampling was based on various publications of the Federal Statistical Office² (Statistisches Bundesamt, 2018, 2019a, 2019b).

Quota sampling was based on the following attributes: sex, age, region of residence, cultural background, and level of education or type of school attended/graduation. Adequate regional distribution was ensured by the locations of the interviewers; there was a relative correlation with the master sample of the Arbeitskreis Deutscher Markt- und Sozialforschungsinstitute e.V. (German Market and Social Research Institutes e.V.) with regard to the criteria of the federal state, the administrative district, and the town size.

Survey instrument

When developing the survey instrument, it was necessary to reconcile two partially contradictory requirements. First of all, it had to be ensured that the trend development since 1980 can be continued in the subsample of 14- to 17-year-olds. On the other hand, the inclusion of the age group of young adults aged between 18 and 25 in 2014 made it necessary to adapt the design of the questionnaire, since their life situation often differs significantly from that of adolescents.

Prior to the survey, the questionnaire was subjected to an extensive pretest under real-life conditions with N=40 adolescents and young adults (quota sampling according to sex, age, education, and migrant background).

The survey lasted on average 41 minutes. In return for their participation, both the adolescents and the young adults – as well as the parents – received information material from the Federal Centre for Health Education (BZgA).

Statistical analyses

In order to prepare the data sets for the statistical analyses, the disproportional sampling design had to be converted into a proportional one by using design weights. In this case, too, the publications of the German Federal Office of Statistics (Statistisches Bundesamt, 2018, 2019a, 2019b) served as a basis for determining the weights.

Combined regional, sex, and educational weights were applied to the data set, as well as additional weights by nationality group for the group of respondents with migrant backgrounds.

The range of design weights is between 0.39 and 2.72. All results published in this article are presented with this design weighting.

Descriptive analyses provide information on the current sexual and contraceptive behaviour of adolescents and young adults in Germany. Furthermore, depending on the respective scale level, bipartite χ^2 - and t-tests are used to determine the significance of differences between the distributions in certain subgroups or between individual phases. There are very few differentiations according to socio-demographic attributes, since this article provides a preliminary overview of the initial results of the current iteration. The statistical analyses were performed using an IBM SPSS, version 25.

The sub-sample of young people aged between 14 and 17 years without a migrant background is used for the presentation of long-term trends, since trend data from almost 40 years are available for this subpopulation.

Results

Experiencing sexuality, partnership, and love

First sexual intercourse

Data obtained during the 9th iteration of the Youth Sexuality Study clearly show that the percentage of adolescents having some experience with (heterosexual) intercourse has not increased during the last decades (Figure 1). The percentage of 15- and 16-year-olds is clearly on the decline. Very few adolescents are younger than 17 at the time of their first sexual intercourse; among 16-year-olds, this is true of only one third of the respondents (34%). Sexual activity increases with age: 61% of 17- and 18-year-olds have already had sexual intercourse; among 22-year-olds and older, about 9 out of 10 young adults report at least one (heterosexual) sexual act (88-90%).

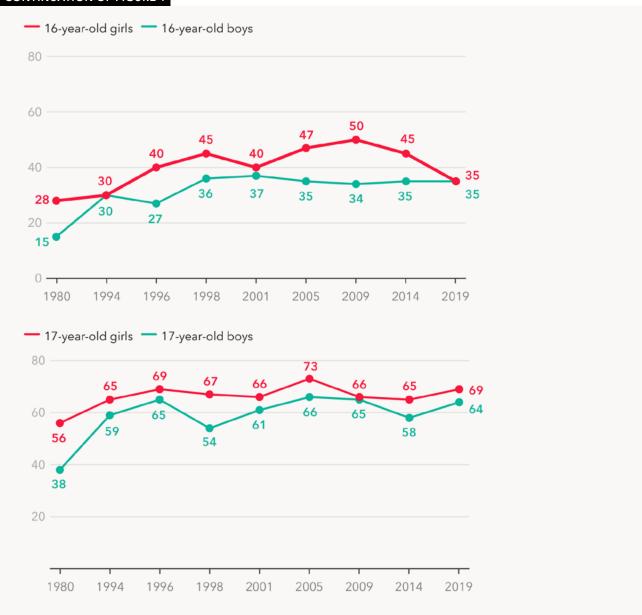
When asked about the reasons for their sexual restraint⁴, 14- to 17-year-olds mention that they "haven't met the right person yet" (55%), that they are "too shy" (39%) and/or that they consider themselves "too young" (41%). In this context, it is striking that the percentage of girls who consider themselves "too young" has increased by 13 percentage points since 2014 (35% in 2014 vs. 48% in 2019; $\chi^2(1.477) = 8801$, p = 0.004).

FIGURE 1

HETEROSEXUAL INTERCOURSE EXPERIENCE AMONG ADOLESCENTS WITHOUT A MIGRANT BACKGROUND (UNTIL 2009: GERMAN CITIZENSHIP), A TREND COMPARISON Question: Please indicate all of the items on this list that you have done or experienced yourself. Here: heterosexual intercourse - 14-year-old girls - 14-year-old boys 80 — - 15-year-old girls - 15-year-old boys

continued on the next page

CONTINUATION OF FIGURE 1



Basis: 14- to 17-year-olds with German citizenship / from 2014: without a migrant background | figures in percent

Source: BZgA, dataset Youth Sexuality, 1980, 1994, 1996, 1998, 2001, 2005, 2009, 2014, 2019 surveys

Sexual orientation

9 out of 10 girls and young women aged 14 to 25 report a heterosexual orientation (89%); among boys and young men, this percentage is 93%.

Female respondents are more likely than male respondents to report sexual orientations other than a purely heterosexual one. In this context, it is primarily adult young women who are most likely to report a homosexual or bisexual orientation (Figure 2).

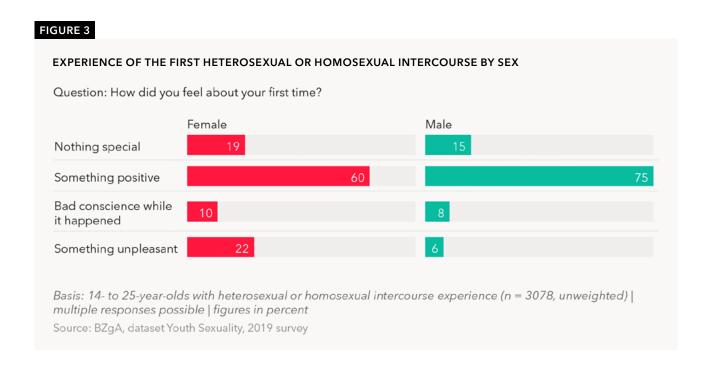
Experiencing the first sexual intercourse

Very few adolescents and young adults have their first intercourse spontaneously⁵. Most 14- to 25-year-olds report that, some time before their "first time", they had been expecting heterosexual or homosexual intercourse to happen "soon" (47%). Another 31% were aware "that it would happen on this particular day"; only a good twenty percent (22%) "did not expect it at all". Consistent with this finding (implying that first coitus was not an accidental event for most respondents), the majority of adolescents and young adults experienced their first intimate contact in a committed relationship (56%) or they were well acquainted with their sexual partner (28%). A much lower percentage of 16% was

only casually acquainted or not at all acquainted with the person they experienced their first sexual intercourse with. As shown in Figure 3, the majority of the 14- to 25-year-olds described their first sexual intercourse as "something positive".

Noticeably, this assessment of girls and young women is confounded with the age at the time of the first sexual intercourse: Only 44 % of those who said they were 14 years old or younger when they "did it for the first time" had experienced their first sexual intercourse as "something positive". This was true of 62% of all respondents who were 15 years or older during the first time $(\chi^2(1.1899) = 26,738, p = 0.000)$. In addition, the degree of familiarity with the sexual partner influences the assessment of girls and young women: If the partner during the first intimate contact was hardly or not at all known to the respondents, only 26 % of them described this as a positive experience. For comparison: If the partner was well known to the respondents or if they were close friends with him/her, 63 % felt that the first coitus was "something positive" (χ^2 (1.1941) = 96,960, p = 0.000). Such correlations were not found among male respondents.

FIGURE 2 HOMOSEXUAL AND BISEXUAL ORIENTATION BY AGE AND SEX Question: Quite generally: do you feel sexually more attracted to boys/men or to girls/women? Or to both? Female Homosexual Bisexual Don't know Male Homosexual Bisexual Don't know All female All male respondents respondents 14- to 15-year-olds 14- to 15-year-olds 3 16- to 17-year-olds 16- to 17-year-olds 18- to 20-year-olds 18- to 20-year-olds 21- to 25-year-olds 4 21- to 25-year-olds 5 10 10 Basis: 14- to 25-year-olds (N = 6032, unweighted) | figures in percent Source: BZgA, dataset Youth Sexuality, 2019 survey



Partnership, relationships, and sexual partners

In relation to the total sample 14- to 25-year-olds, 41% of adolescents and young adults report being in a steady partnership⁷. The percentage of adolescents and young adults who are in a steady relationship varies with age and also depends on the gender/sex (<u>Table 2</u>).

With regard to the duration of the partnerships⁸, two out of three respondents (65%) state that their relationship has already existed for at least one year; although the duration is also related to age. According to their own reports, 74% of the 14- and 15-year-olds and 63% of the 16- and 17-year-olds are in a relationship that only started several weeks or months ago. This is true of only 44% of the 18- to 20-year-olds and a mere 23% in the oldest cohort of 21- to 25-year-olds. 57% of the 18- to 20-year-olds have been living in a steady relationship for more than a year.

Thus, if young adults at the age of 18 and older are in a committed relationship, then the majority of these relationships will last longer. In these relationships, sexual fidelity⁹ is of paramount importance for many young people - more so for young women than for young men.

75% of female and 62% of male respondents aged 18 to 25 consider sexual fidelity "an absolute necessity" ($\chi^2(1.4171) = 79,086$, p = 0.000). Only a few believe that the demand for sexual fidelity is "wrong" (3% of female vs. 6% of male respondents; $\chi^2(1.4170) = 25,935$, p = 0.000). Another 32% of young men and 22% of young women find sexual fidelity "desirable" ($\chi^2(1.4170) = 44,318$, p = 0.000).

Thus, for many young adults, the experience of sexuality seems to be tied to a relationship. In line with this observation, young adults who were in a relationship at the time of the survey were much more likely to report "regular" sexual intercourse than those without a realtionship (85 % vs. 18 % without a relationship).¹⁰

Besides, the number of prior sexual partners increases with age. As shown in <u>Figure 4</u>, the clear majority of adolescents aged 14 to 17 have had only one or two sexual partners. The total number of previous sexual partners increases with age.

TABLE 2

PRESENCE OF A RELATIONSHIP BY AGE GROUP

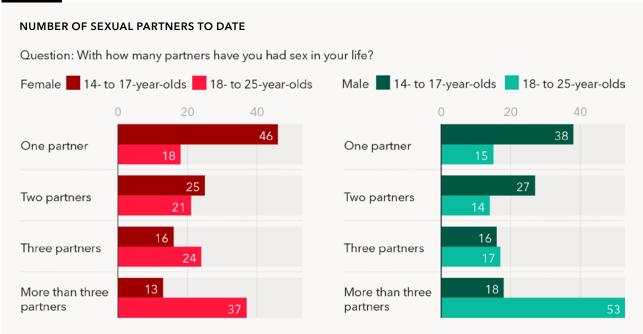
	14- to 15- year-olds	16- to 17- year-olds	18- to 20- year-olds	21-to 25- year-olds
Girls / young women	7	37	47	66
Boys / young men	3	11	34	45

Here: 'Yes, I'm currently in a steady relationship / married.'

Basis: 14- to 25-year-olds (N = 6032, unweighted) | figures in percent

Source: BZgA, dataset Youth Sexuality, 2019 survey

FIGURE 4



Basis: 14- to 25-year-olds who have had more than one heterosexual or homosexual intercourse encounter (n = 3078, unweighted) | figures in percent

Source: BZgA, dataset Youth Sexuality, 2019 survey

Contraceptive behaviour

Non-contraception during first sexual intercourse

In order to gain reliable information on the contraception rate of young people in Germany, the focus here is on the target group of 14- to 17-year-olds, since a desire to have children can generally be ruled out among minors (a mere 1% of adolescents in the present survey would consider a current pregnancy to be "desirable").

All in all, 9% of the 14- to 17-year-olds admitted not to having used any kind of contraception during their first intercourse. Figure 5 shows the trend development over the past almost 40 years among adolescents without a mirgant background. Despite the clearly positive trend, this shows a slight increase in the percentage of adolescent males who do not use any kind of contraception; although this change is not significant (6% in 2014 vs. 11% in 2019; χ^2 (1.380) = 2,277, p = 0.143).

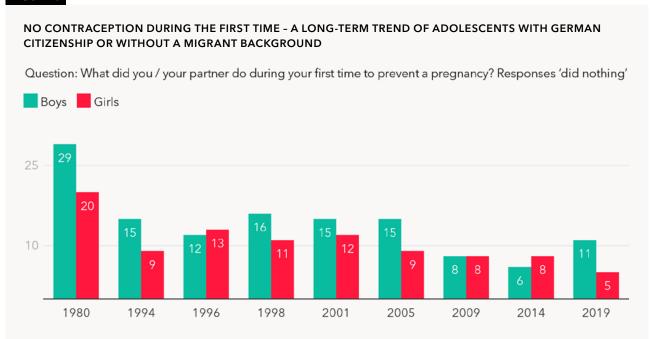
Asked for their reasons for not using any contraceptives 11, adolescents most often argue as follows: "it happened too spontaneously" (56%), they assumed "nothing would happen" (38%), and that "no contraceptives were spontaneously at hand" (27%).

Choice of contraceptives

Adolescents tend to know quite a bit about contraception and sexuality, as shown by the low percentage of those who used no contraceptives at all during their first sexual intercourse. Primary sources of information about contraceptives ¹² for 14- to 17-year-olds include lessons at school (69%), conversations (68%), and the internet (59%). Besides, adolescents also frequently refer to teenage magazines for information (34%).

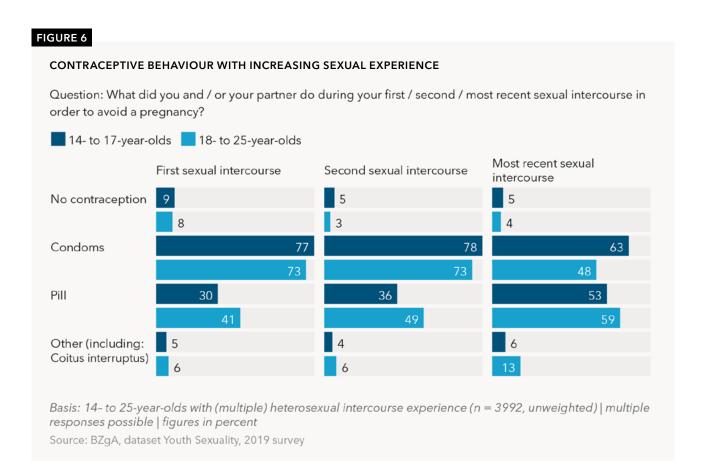
The data of the 9th iteration of the Youth Sexuality Study show that the choice of contraceptives changes with age, increasing sexual experience, as well as the existence of a steady relationship.

FIGURE 5



Basis: 14- to 17-year-olds with German citizenship / from 2014: without a migrant background with heterosexual intercourse experience | figures in percent

Source: BZgA, dataset Youth Sexuality, 1980, 1994, 1996, 1998, 2001, 2005, 2009, 2014 and 2019 surveys



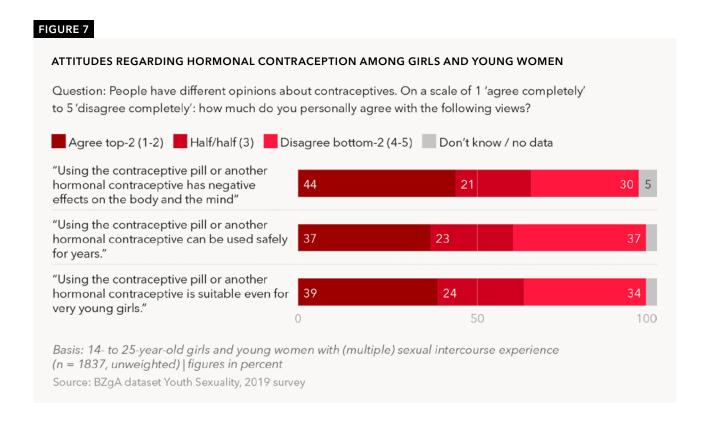
When it comes to first experiences with sexual intercourse, both adolescents and young adults are significantly more likely to have used a condom than the pill (Figure 6). Asked for their last sexual intercourse, on the other hand, the percentage of respondents who used a condom decreases, and the pill gains in importance. Especially in steady relationships, respondents are more likely to use the pill (65 % vs. 49 % pill use without a current partnership; χ^2 (1.3874) = 90,581, p = 0.000). Other contraceptives, such as the (copper) coil or the diaphragm, play only a minor role (percentage of users 0-4 %).

In focus: The pill

Although girls and young women are likely to use the pill as a contraceptive, especially in steady relationships, this trend has been on the decline since 2014. The frequency of use decreased by 13 and 12 percentage points, respectively, regardless of the existence of a relationship (contraception during the most recent sexual intercourse: Respondents in a steady relationship:

78 % in 2014 vs. 65 % in 2019 (χ^2 (1.2650) = 50,104, p = 0.000); respondents without a partnership: 66 % in 2014 vs. 54 % in 2019 (χ^2 (1.1295) = 18,107, p = 0.000).

The significant decline in pill use is also accompanied by an overall more sceptical attitude towards the pill: Health compatibility ¹³ was rated worse in 2019 than in 2014. (2014: MD = 2.64, SD = 1.35; 2019: MD = 3.08, SD = 1.51; t (3650) = -9362, p = 0.000). Also, the attitude of girls and young women toward hormonal contraception is quite heterogeneous and tends to be rather critical or ambivalent (Figure 7).



Emergency contraception

Awareness among 14- to 25-year-old sexually active girls and young women regarding the possibility of emergency contraception using the "morning-after pill" is almost universal: 96% are familiar with this method of emergency contraception. More than a quarter (27%) of respondents had already countered an emergency with the "morning-after pill"; and 9% had already used it more than once. The frequency of use among 14-to 25-year-olds depends on the age: Sexually active female minors are only half as likely to use emergency contraception (once: 10%; repeatedly: 5%) than young women aged 18 or older (once: 20%; repeatedly: 9%). The older the women and the longer they have been sexually active, the more likely it is that they have already used the "morning-after pill".

A long-term trend in the use of emergency contraception by girls between 14 and 17 years of age without a migrant background can be shown using the data obtained by the Youth Sexuality Study: The one-time use has not changed significantly (8% in 2001 vs. 10% in 2019). Repeated use increased from 1% in 2001 to 4% in 2019.

Discussion

The 9th iteration of the Youth Sexuality Study, based on representative samples, provides information regarding the sexual and contraceptive behaviour in the current generation of 14- to 25-year-olds in Germany.

The first time in particular is a much-discussed topic in society. The available data do not provide any evidence confirming that adolescents are experiencing their first coitus at an increasingly younger age. On the contrary—the trend in Germany for young people to start sexual activities at an increasingly later age is continuing in 2019 (Hessling & Bode, 2017). This is a major strength of the Youth Sexuality Study: The beginning of an active sexual life is not retrospectively reported by the respondents. Instead, the current generation is asked about existing sexual experiences. This serves to eliminate response biases due to memory effects.

For most adolescents and young adults, their first homosexual or heterosexual intercourse happens in a steady relationship and as a planned event. Thus, the first time is largely considered a "nice experience". Among girls and young women, however, this assessment is much less likely to be positive if they were very young during their first coitus or if they hardly knew the person with whom they experienced their first time; or if it was, indeed, a stranger.

All in all, positive experiences with sexuality for adolescents and young adults are usually linked to committed relationships. Frequent change of sexual partners is the exception, especially among minors. Besides, the majority of young adults - young women more often than young men - want monogamous relationships or even consider sexual fidelity to be indispensable.

In conjunction with the Youth Sexuality Study, preliminary representative data regarding the sexual orientation of young people in Germany can be presented for the first time. 11% of all female and 7% of all male adolescents and young adults report a bisexual or homosexual orientation. This percentage is therefore higher than among adults (UKE Hamburg et al., 2020).

With regard to contraception, current data show that most adolescents in Germany use safe contraception. At this point in time, 5% admit not to have used any kind of contraception during their most recent sexual intercourse. This percentage is much lower than the average of 30 European and non-European industrialized countries (**De Looze et al., 2019**).

The choice of contraceptive is confounded with the age and the associated degree of sexual experience respectively with the existence of a partnership. At a young age and with few sexual experiences, adolescents tend to use condoms and less frequently rely on the pill for contraception. With increasing age and the existence of a longer-lasting committed relationship, use of the pill increases significantly. This pattern of use is confirmed by a Canadian study (Rotermann & Mcay, 2020).

But although many young people in committed partnerships tend to use the pill for contraception, available data indicate a possible change in attitude toward hormonal contraception: The percentage of respondents using the pill for contraception is on the decline. This development coincides with the decrease in the number of contraceptive pill prescriptions for girls and young women with statutory insurance (AOK-Bundesverband, 2020).

However, it is not just the use of the pill that is on the decrease – health compatibility, too is getting inferior ratings, as shown by the latest data from the Youth Sexuality Study. Other surveys suggest that this sceptical attitude may also be related to a general change in the perception of norms. The current Shell Youth Study, for instance, shows that a conscious lifestyle with a high level of health awareness is more important for young people today than even a few years ago (Albert et al., 2019). After all, health-related aspects play a major role in the choice of contraceptives for girls, as shown by a study performed in the USA (Berglas et al., 2021).

Hormone-free contraception could thus be seen as desirable behaviour in the context of an ecologically sustainable and health-conscious lifestyle. This attitude and the lifestyles derived from it are also conveyed by social media where female influencers with a wide reach, for instance, promote hormone-free contraception as a desirable ideal (Döring, 2021).

Finally, with regard to emergency contraception, it is quite clear that knowledge of this option among 14- to 25-year-old girls and young women is almost universal and that one-time use among adolescents has been predominantly constant for almost 20 years. With regard to multiple use, there has been an increase with an overall very low frequency of use.

All in all, the current results of the Youth Sexuality Survey on contraception show that adolescents and young adults in Germany have a broad knowledge of sexuality and family planning, which is reflected in a high level of contraceptive competence. This is also reflected in the steady decline of pregnancies and abortions among girls under the age of 18 (Statistisches Bundesamt, 2020, 2021b). This shows that information on sexuality education reaches young people in Germany and that they actually utilise it. The transfer of knowledge continues to be focused on school, discussions in the home, but also on exchanges among peers and the internet (BZgA, 2020). Educational measures thus make a significant contribution to promoting sexual health in young people and preventing pregnancy conflicts.

Finally, it should be mentioned that the present iteration of the Youth Sexuality Survey was performed in 2019 – i.e., before the outbreak of the COVID-19 pandemic. Thus, the data available now cannot be used to elucidate the impact of contact-restriction measures on adolescents' and young adults' sexual and contraceptive behaviour. Sexuality education and prevention services, however, had to be almost completely discontinued due to the COVID-19 pandemic (Böhm et al., 2021; Thomson-Glover et al., 2020). The impact of this development on the sexual and reproductive health of young people in Germany will probably be revealed in the next iteration, which is currently being planned.

Conclusion

In summary, the data from the 9th iteration of the Youth Sexuality Survey confirm that contraceptive behaviour among young people in Germany is largely safe. As far as hormonal contraception concerned, a change in attitude appears to be taking place in the next generation.

Commitment to sexuality education and family planning should be maintained and intensified. This is the only way to ensure the sexual and reproductive health of future generations and to reduce potential negative consequences of the COVID-19 pandemic.

Endnotes

- 1 Because of the methodological design of the Youth Sexuality Study a further non-binary differentiation of gender has had to be left out. For this same reason, the term 'sex' (biological aspects, assigned by birth) continues to be used (in contrast to 'gender' in the sense of social construction, gender identity as personal internal perception of oneself) to enable statements on long-term trends (see also Census UK, 2019). This decision is purely a methodological necessity and not based on a lack of awareness of diversity here.
- 2 Reference day 31 December 2017.
- 3 The percentage of missing values per item (item no response) is low, due to the face-to-face situation and the self-administered questionnaire. Across all the items of the questionnaire, their percentage reaches a maximum of 16 % (item: Experience with various kinds of contraceptives, HERE: Diaphragm, pessary, cervical cap). Missing values were assigned to the residual category ("don't know"). There are no incomplete data sets (unit no response).
- 4 Question: "Please mark the reasons that were decisive for why you didn't have closer contact." (multiple responses possible); Basis: 14- to 17-year-olds who have not yet engaged in physical contact with the opposite sex (n = 906, unweighted).
- 5 Question: "Which of the following statements best characterizes your situation before your first time?", Basis: 14- to 25-year-olds with heterosexual or homosexual intercourse experience (n = 3078, unweighted).
- 6 Question: "How well did you know your partner during your first intercourse resp. sex?"; Basis: 14- to 25-year-olds with heterosexual or homosexual intercourse experience (n = 3078, unweighted).
- 7 Question: "Are you currently in a steady relationship/married?"; Basis: 14- to 25-year-olds (N = 6032, unweighted).
- 8 Question: "How long have you been in a relationship with your current partner?"; Basis: 14- to 25-year-olds in steady relationship or marriages (including same-sex marriages) (n = 2049, unweighted).

- 9 Question: "What is your attitude towards sexual fidelity in a relationship?"; Basis: 18- to 25-year-olds (n = 2476, unweighted). This question was only raised among 18- to 25-year-olds.
- **10** Question: "Do you have sex occasionally/intermittently or regularly?"; Basis: 18- to 25-year-olds who have had heterosexual sex more than once (n = 1998, unweighted).
- 11 Question: "What were the reasons why you did not use contraception during your first time" (multiple responses possible); Basis: 14- to 25-year-olds who did not use contraception during their first sexual intercourse (n = 241, unweighted).
- **12** Question: "Where did you primarily learn about sexuality, reproduction, contraception and so on?" (multiple responses possible); Basis: 14- to 17-year-olds (n = 3556, unweighted).
- 13 Question: "We want to know how you assess certain qualities for different contraceptives. [...] Please evaluate the contraceptive pill"; scale from 1 "very good" to 6 "very poor"; Basis: 14- to 25-year-old girls/women who have had heterosexual intercourse multiple times (n = 1837, unweighted).
- 14 Question: "After a contraceptive failure or after unprotected sex, there is the option of emergency contraception, known as 'morning-after pill'. [... more detailed descriptions]

 Did you know that such a pill exist?"; Basis: 14- to 25-year-old heterosexual girls/young women with sexual intercourse experience (n = 1886, unweighted).
- 15 Question: "[more information] Have you yourself used the 'morning-after pill'?"; Basis: 14- to 25-year-old girls/women who have had heterosexual intercourse multiple times (n = 1837, unweighted).

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Imprint

Publisher

Bundeszentrale für gesundheitliche Aufklärung (BZgA) [Federal Centre for Health Education (BZgA)]

Acting Director: Dr. Johannes Nießen

Maarweg 149-161 50825 Köln Tel.: 0221 8992-0

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Translation

Vertaalbureau AABEE Langeveen, Netherland Revision: Kühn Medienkonzept & Design GmbH

Concept and Design

Kühn Medienkonzept & Design GmbH, Ruppichteroth, Köln

Version

PDF version (EN) 1.0, published online February 2024, translated from German version published here: Scharmanski, S., & Heßling, A. (2021, October 01). Sexual- und Verhütungsverhalten von Jugendlichen und jungen Erwachsenen in Deutschland. Aktuelle Ergebnisse der Repräsentativbefragung "Jugendsexualität". Bundesgesundheitsblatt, 64, 1372–1381. https://doi.org/10.1007/s00103-021-03426-6

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Citate this article

Scharmanski, S. & Hessling, A. (2024). Sexual and contraceptive behavior of adolescents and young adults in Germany. Results of the representative survey "Youth Sexuality" (Vertaalbureau AABEE, Transl.; Federal Centre for Health Education (BZgA), Ed.). https://doi.org/10.17623/BZgA_SRH:fa_JuSex9_en_BGBL-2021_results (Original work published 2021)

ACKNOWLEDGEMENTS

We would like to express our sincerest gratitude to the participating young people for their trust, their openness, and their support.

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