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A true love story

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Chapter 3

Take Your Time?

Young People's Everyday Expressions of Sexual Behavior Trajectories over a Two-year Period

Wieke Dalenberg, Greetje Timmerman, & Paul van Geert

This chapter is based on:

Dalenberg, W.G., Timmerman, M.C., Van Geert, P.L.C. (under review). "Take Your Time?" – Dutch Adolescents' Everyday Expressions of Sexual Behavior Trajectories over a Two-year Period: A Mixed-Methods Study.

Abstract

Previous studies on sexuality and sexual behavior were mostly cross-sectional and focused on a narrow definition of sexuality that merely included explicit sexual acts. Using an extended definition of sexuality, this mixed-methods study builds on existing research into young people's emergent sexual development by longitudinally examining young people's sexual behavior trajectories (i.e., from less to more intimate sexual behavior). Over a two-year period, 45 young people (*Mean Age*=15.9) reported on their sexual behavior using longitudinal questionnaires and on their everyday expressions of sexuality in the form of semi-structured diaries. Cluster analysis using questionnaires identified three sexual behavior trajectories: a non-sexually active trajectory ($n = 29$), a gradually sexually active trajectory (meaning step-by-step sexual behavior development) ($n = 12$), and a fast sexually active trajectory (meaning rapid sexual behavior development) ($n = 4$). Qualitative analysis using diaries revealed the following themes: romantic versus sex-related topics, desires, uncertainties, and references to the social context. In general, all young people reported more about romantic aspects of sexuality (than about sexual acts) in the diaries, regardless of their sexual behavior trajectory. Sexually active young people (i.e., gradual and fast) were more concerned with sexuality in their diaries, especially more on the physical aspects of sexuality, than non-active young people. Gradual young people experienced more desires about physical sexual contact and reported fewer references to their social network than non-active and fast young people. The findings suggest that sexual education that discusses internal representations of sexual development, particularly the romantic aspects, may help young people to process their preferences for different sexual and romantic acts and may contribute to healthy sexual development.

Keywords: Mixed-methods, Diary, Sexual Behavior Trajectories, Sexual Expressions

Introduction

The emergent development of sexuality is a normative transition within adolescence and a central aspect of human life (Tolman & McClelland, 2011; Smiler, Ward, Caruthers, & Merriwether, 2005; WHO, 2012). Despite this centrality, having sex may have serious consequences for a young person's physical health, for example, if they acquire a sexually transmitted disease (De Graaf, Kruijer, Acker, & Meijer, 2012; Edwards & Coleman, 2004; Weinstock, Berman, & Cates, 2000). Various sexual behaviors may also affect young people's psychological well-being. For instance, while some young people experience fulfillment of desires, others have feelings of guilt or other internal representations of sexual behavior. Internal representations may explain how sexual behavior affects young people's psychological well-being. Therefore, it is crucial to understand sexual behavior development across adolescence and to study what internal representations are associated with different sexual developmental trajectories.

Little research has focused on the speed of progression of sexual developmental trajectories in terms of less to more intimate behaviors. To our knowledge, one study has examined the speed of progression of sexual behaviors using a cross-sectional sample in the Netherlands (De Graaf, Vanwesenbeeck, Meijer, Woertman, & Meeus, 2009). However, cross-sectional studies are limited in terms of capturing longitudinal changes in the temporal sequence of various sexual behaviors. In addition, little research has examined young people's own expressions of their sexual development (Collins et al., 2009; Russell, 2005).

This is the first study focusing on young people's real-time everyday expressions of their sexual development. In order to do so, we implemented a longitudinal qualitative diary study to examine young people's speed of progression in the sequence of behavior trajectories from less to more intimate sexual activities and their everyday expression of their sexual development. This study aims to improve our understanding of young people's perceptions of their sexual development from the unique viewpoint of the young people themselves.

An extended definition of sexual development

In conformity with the concept of sexuality as a central aspect of human life, the focus of this study is an elaborated definition of sexuality that encompasses variations in sexual behavior, as well as private representations (Edwards & Coleman, 2004; Hilber &

Colombini, 2002; WHO, 2012). In addition to various sexual behaviors, emergent sexual development also encompasses internal representations of (future) sexual encounters, alongside fantasies, desires, and feelings of uncertainty (Edwards & Coleman, 2004; Lefkowitz, 2002; WHO, 2012). Research shows that girls' sexual cognitions change before having their first sexual intercourse (O'Sullivan & Brooks-Gunn, 2005). In addition to physical aspects of sexuality (e.g., sexual fantasies and behaviors), sexuality also entails romantic aspects such as finding someone attractive, being in love, or experiences within the romantic relationship. In fact, young Dutch people have more romantic involvements than sexual encounters (De Graaf et al., 2012). Furthermore, young people spend a great deal of time discussing romantic experiences with their peers (Lefkowitz et al., 2004; Simon et al., 1992).

This extended definition of sexuality ensures that, in addition to young people who perform sexual acts, our study will also include young people who are not yet involved in sexual behavior. Non-sexually active young people are not engaging in sexual acts with others, but they may have related thoughts, feelings, fantasies, and desires. A complete picture of emergent sexual development also encompasses young people who have not yet had explicit sexual contact with (potential) sexual partners. The majority of studies on sexual behavior, however, have exclusively focused on whether young people have had sexual intercourse (e.g., Schwartz, 1999; Zimmer-Gembeck & Helfand, 2008).

Yet sexual intercourse is only one component of the various sexual behaviors young people may engage in, in the course of their sexual development. Other forms are, for example, French kissing, and fondling on top of and underneath clothing. By exclusively focusing on sexual intercourse, other sexually active young people are excluded from studies. Research focusing on various sexual behaviors has demonstrated that most young people follow a progression from kissing via fondling on top of and underneath clothing to actually having sexual intercourse (e.g., De Graaf, Vanwesenbeeck, Meijer, Woertman, & Meeus, 2009; Halpern, Joyner, Udry, & Suchindran, 2000; Jakobsen, 1997; Lam, Shi, Ho, Stewart, & Fan, 2002; O'Sullivan & Brooks-Gunn, 2005; Shtarkshall, Carmel, Jaffe-Hirschfield, & Woloski-Wruble, 2009; Smiler, Frankel, & Savin-Williams, 2011; Wiegerink, Stam, Gorter, Cohen-Kettenis, & Roebroek, 2010).

Young people's sexual behavior trajectories: gradual and fast trajectories

Young people may progress differently from less intimate to more intimate sexual behaviors. By incorporating a full description of sexual behavior, cross-sectional research has shown two sexually active trajectories: a gradual (or linear) and a fast (or non-linear) sexual trajectory (de Graaf et al., 2009). The gradual sexual trajectory is the most common

trajectory (73%) and encompasses young people who gradually and linearly progress from less to more intimate sexual behavior. They follow a step-by-step sequence from kissing via fondling to having sexual intercourse. In contrast, young people having a fast sexual trajectory (27%) rapidly develop from one sexual behavior to the next. Mostly immigrant and low-educated young people follow this rapid development into more intimate sexual behaviors (De Graaf et al., 2009). The gradual sexual trajectory is believed to be healthier (than fast), because it is linked to more consistent contraceptive use (De Graaf et al., 2009). Furthermore, fast trajectories appear to be less healthy, since the shorter amount of time between the various sexual acts may limit opportunities to direct their sexual development in terms of their own needs (Rademakers & Straver, 1986; Thompson, 1990).

Young people with a gradual trajectory start with initial sexual behavior that fits their needs, for example, the desire to kiss (Rademakers & Straver, 1986). Subsequently, young people experiment with this behavior; they explore their thoughts and feelings, and they gradually develop their preferences for new sexual behavior. In this way, young people have time to process the new information before proceeding to the next step of sexual behavior. They feel autonomous in performing sexual acts. Consequently, young people who gradually progress from less to more intimate sexual behavior view their sexual behavior development as positive (e.g., curiosity, desire, pleasure) (Thompson, 1990). In contrast, fast young people have less time to think and process previously performed acts. They experience their sexual development more negatively (e.g., painful, boring, disappointing) than gradual young people do (Thompson, 1990).

More recent research has demonstrated that intentional (versus spontaneous) first sexual intercourse is one of the factors linked to a more positive first sexual intercourse experience (Smiler, Ward, Caruthers, & Merriwether, 2005). One could imagine that a more intentional sexual intercourse experience is related to sufficient time for exploration of thoughts and feelings, and subsequent autonomous engagement in this sexual activity. In addition, young women, who feel empowered in having sexual desires and who reported greater sexual self-efficacy, reported fewer negative reactions to recent sexual intercourse (Zimmer-Gembeck, See, & O'Sullivan, 2014). Other research showed that girls with less sexual experience (not having experienced breast fondling) experienced lower sexual arousal, sexual agency, sexual self-esteem, and peer approval in having sex than did girls who initiated breast fondling over a one-year period (O'Sullivan & Brooks-Gunn, 2005).

Current study

Previous studies on young people's sexual development were mostly retrospective cross-sectional and focused on a narrow definition of sexuality. This study extends existing research by exploring the speed of young people's sexual behavior trajectories, and how this speed relates to the everyday expression of sexual development prospectively and longitudinally over a two-year period. In order to do so, we examined young people's expressions of their everyday sexual development qualitatively (important themes) and quantitatively (i.e., frequency). We also assessed differences between sexual behavior trajectories. Inspired by earlier research into sexual behavior trajectories, we explored three of these: 1) the non-sexual behavior trajectory, 2) the gradual sexual behavior trajectory, and 3) the fast sexual behavior trajectory (De Graaf et al., 2009).

Based on the research literature, we assumed that non-sexually active young people would report fewer expressions of sexuality in their diaries than young people in gradual and fast sexual behavior trajectories. Furthermore, it was expected that the romantic aspects would be more profound than the physical aspects of sexuality, even though sexually active trajectories are thought to express more about the physical aspects (e.g., sexual intercourse, French kissing) of sexuality than the trajectories of non-active young people. Additionally, we qualitatively and quantitatively (i.e., in terms of frequency) explored whether it was possible to find overarching themes and, subsequently, to differentiate these themes in terms of sexual-behavior trajectories.

Method

Participants

The main goal of the diary study was to describe emergent sexual development from the perspective of the young people themselves. Data for the current study were collected from 45 young people, who were asked to describe their everyday sexual experiences in a two-year diary study. Initially, 123 young people (81 girls; 42 boys) participated in the study. Approximately half of the young people (53%) dropped out during the research period (W1: $n = 123$; W2: $n = 98$; W3 $n = 85$; W4 $n = 75$; W5 $n = 67$; W6 $n = 65$). Of the remaining 65 eligible participants, 20 young people were removed because of incomplete data or inconsistent answers (e.g., reporting fondling underneath clothing at W1 but not at W2). This left 45 participants (35 girls; 10 boys) who provided complete data.

The average age of the 45 participants was 15.9 years old ($SD = 1.6$). Eighteen percent of the participants were enrolled in pre-vocational secondary education, 43% in senior general secondary education, and 39% in pre-university education. These are the three main types of high-school education in the Netherlands. All participants had Dutch nationality and reported their sexual orientation as (predominantly) heterosexual.

The 45 research participants consisted of significantly more girls and fewer boys than the initial $n = 123$ sample ($\chi^2(1, N = 123) = 3.963, p = 0.047$). There were no significant differences in age or educational level between the 45 research participants of this study and the initial $n = 123$ sample ($t(121) = 0.216, p = 0.830$ and $t(120) = 0.540, p = 0.590$), respectively).

Procedure

Six high schools known to the first author (via acquaintances and colleagues) were approached by e-mail and telephone, and through school visits. The schools were representative of the three main educational levels of high schools in the Netherlands. In addition to written and oral information about the research project, participants and their caregiver(s) received the invitation to voluntarily participate in the study, and were asked to return a registration form. The goal of the study (to capture participants' sexual development, broadly defined) was described, and it was explicitly mentioned that every participant between 12 and 18 years old could participate, including those who were not (yet) involved in sexual activities (e.g., sexual intercourse). It was important to attract non-active participants, because we wanted to study the progression of sexual activity over a two-year period. We explicitly mentioned that motivation was important, since the study design was time-consuming and intensive (i.e., regular reports over two years). An age range of 12 to 18 years old was the selection criteria, because sexual development emerges during this period through exploring manifest experiences (e.g., De Graaf et al., 2012). Permission from caregiver(s) was a requirement for participation in the study.

The study consisted of longitudinal questionnaires and diaries. The data collection consisted of six waves of six weeks, separated by a two-month break, over the course of two years. Six waves were chosen, because we did not want to overburden the participants. A weblog questionnaire assessing demographic information and sexual behavior was completed in the first week of the data collection period. In the weeks that followed, the participants completed a semi-structured weblog diary, assessing everyday experiences with sexuality. The questionnaires and diaries were maintained on a secure survey website. E-mail addresses and usernames were collected separately to guarantee anonymity.

Participants were allowed to ask questions, and request advice or help after each diary entry, for ethical reasons. This support was provided in close collaboration with a mental health institution so e-health or referral to a support service could be offered if required. Those few participants who asked questions were not included in our study's 45-member sample. To increase participants' motivation for the study, the main researcher remained in contact with the participants by e-mail. The main researcher sent out newsletters, Christmas greetings, and personally answered incoming e-mails. At the end of every data collection period, the participants were compensated for their participation by an increasing weekly reward starting with EUR 5 (W1) and ending with EUR 15 (W6). Prior to data collection, the study was approved by the Ethical Committee for Psychology of University of Groningen.

Measurements

Questionnaire: Sexual behavior trajectories. Participants assessed dichotomously whether or not (yes/no) they had experienced French kissing (1), being fondled/fondling on top of clothing (2), being fondled/fondling underneath clothing (3), and going further than that (4). If they went further than fondling underneath clothing, they could write in an open-ended way what they had exactly done. Sexual behavior ranged from no sexual activity (0) to going further than fondling underneath clothing (4).

Because of ethical considerations, young people were protected against receiving information they were not ready for. This precaution was important, since the age range of young people who could participate in the study varied from 12 to 18 years old. Repeated exposure to questions related to sexual activity may motivate young people to give a "yes" answer, despite not actually having performed the sexual act. Additionally, young people could be triggered to perform sexual acts that they had read about in the questionnaire. In order to overcome these problems, young people were exposed to the sexual activity questions adaptively. Only if young people wrote that they had been involved in kissing (1), would they see the next question about fondling on top of clothing (2). In addition, young people reporting fondling on top of clothing (2) would see the next question about fondling underneath clothing (3), etc.

The above-mentioned questionnaire items were used to calculate duration, progression, speed, and experience of sexual behavior over the two-year period. First, duration was assessed for the sexual behavior that was reported with the longest duration during the research period. For example, a participant might report kissing at W1 (1), and at W2, W3, W4 fondling on top of clothing (2), and at W5 and W6 fondling underneath clothing (3). In this case, the duration was considered as (2) fondling on top of clothing.

Duration ranged from (0) no sexual activity to (4) going further than being fondled/fondling underneath clothing. Second, progression was assessed by extracting the sexual behavior of W6 from the sexual behavior of W1. For example, from nothing (0) at W1 to going further (4) at W6, the progression was 4 (4 minus 0). Progression ranged from (0) no progression to (4) a progression within the research period from no sexual activity to going further than being fondled/fondling underneath clothing. Third, speed was computed if a participant skipped a sexual behavior from one point in time to the other (e.g., from W1 to W2). For instance, a participant could report (0) no sexual activity at W1 and (3) fondling underneath clothing at W2 resulting in a speed of 1 (i.e., skipping one sexual activity, namely (2) fondling on top of clothing). Speed ranged from 0 skipping no sexual behavior to 3 skipping three sexual behaviors within the research period. Finally, experience was assessed as the “highest” sexual behavior of all waves and could range from (0) no sexual activity to (4) going further than fondling underneath clothes.

Diary: Everyday expressions of sexual development. Because of the innovative nature of the diary study, a pilot study was conducted using a sample of 183 participants at a vocational training school, who filled in the diary once without any financial compensation for their participation. Results showed that the participants understood the questions well and were motivated to report on private personal experiences. Minimal revisions were made to the wording of questions as used in this study.

In order to capture everyday expressions of emergent sexual development, participants were invited to report everyday sexual experiences: “The following questions are about what was most on your mind in the previous week regarding falling in love, flirting, going out, having sex, intimacy, having a romantic relationship, and/or everything related to that. So, write about something that’s on your mind, what you’re thinking about, and what you have strong feelings about.” The participants were given open-ended prompts and were stimulated to write elaborated reports by answering two more open-ended questions: what the participants wished for and did during the event, or wished for and wanted to do in case of an internal experience, such as a thought or desire.

Data analysis

The two-year quantitative questionnaire data distinguished participants based on their reports of sexual behavior. A two-step cluster analysis for duration, progression, speed, and experience was used to explore whether participants could be grouped into different sexual behavior trajectories. The two-step cluster analysis was chosen, because it can handle continuous and categorical variables. Cluster analysis is an exploratory statistical

tool clustering participants into groups; it computes groups based on the degree of association between participants.

The two-year qualitative diaries were used to find overarching themes in everyday experiences. Constant Comparative Method (CCM) compares the content of the diaries, involving three steps: open, axial, and selective coding (Boeije, 2010). Open coding was used to study every diary to determine what exactly was described by the participant, resulting in tentative codes. The tentative codes were applied to the rest of the sample: axial coding. By selective coding, the data was structured by focusing on the research questions. We identified the importance of the themes quantitatively by calculating the frequency of the codes. In addition, the everyday expressions of sexuality were compared among the sexual behavior trajectories.

Inter-observer reliability was calculated using Cohen's kappa. Values > 0.70 were considered to be reliable. Quantitative analyses were done with the use of Excel and SPSS version 20.0. The frequency of participants reporting a topic at least once and the number of diary reports are presented in percentages to compare the relative number of reports between the sexually active and non-active trajectories. Quantitative analyses were performed using t-test and Fisher's exact test to examine age and gender differences, respectively. A Mann-Whitney U test was used to compare the clusters on the median number of diary reports. Monte Carlo permutation tests were used to test differences between the clusters for themes in the daily expressions. Monte Carlo permutation tests were judged to be the most suitable statistical analyses in cases of small (or skewed) samples sizes, since they do not need any underlying distribution or minimum sample size (Todman & Dugard, 2001; Van Geert, Steenbeek & Kunnen, 2012). Meaningful differences between the clusters are presented as noteworthy, when the clusters statistically differ on percentage number of participants as well as percentage number of diary reports. We chose a combination of both methods in order to examine differences in personal sexual expressions, because a higher number of diary reports may not co-occur with a higher number of participants, since some participants might write several diary reports about a specific theme, whereas others might not, thus resulting in an over- or underestimation of differences. The number of diary reports is also important to note, because it gives an indication of the intensiveness of the topic in the daily lives of participants. Quotations from individual participants are illustrated by numbers, from P01 for participant 01, to P45 for participant 45.

Results

Questionnaires: Sexual behavior trajectories

Two-step cluster analysis on duration, progression, speed, and experience revealed three sexual trajectories, the characteristics of which are shown in Table 1. The majority of the participants showed a non-active sexual behavior trajectory ($n = 29$; 64%). Although a few reported once having kissed someone, most participants in this trajectory reported no sexual activities during the two-year period. The other participants were sexually active, resulting in two sexual behavior trajectories.

About one third of respondents showed a gradual sexual behavior trajectory with respondents developing more sexual activities step-by-step over the two-year period ($n = 12$; 27%). A minority of the respondents showed a fast trajectory, experiencing all new sexual behaviors in a short period of time ($n = 4$; 9%). Within a few months they jumped from never kissed someone to going further than fondling underneath clothing, such as performing or receiving manual sex or having vaginal intercourse.

All participants in the non-active sexual behavior trajectory were participants who mentioned no (or minor) sexual behavior (from French kissing to fondling underneath clothing) in the questionnaire. These participants were not sexually active, based on the items in the questionnaire. It should be mentioned, however, that, in the diary descriptions, these participants did report about sexual experiences. In this sense the term “non-active” seems not quite right. Still, for reasons of clarity we will call those participants, clustered together as having no (or minor) experiences with explicit sexual behavior (from French kissing to fondling underneath clothing) based on the questionnaire, non-active participants.

Participants having a non-sexually active trajectory ($Mage = 15.6$) and gradual sexual behavior trajectory ($Mage = 16.6$) did not significantly differ for gender or age (respectively, ($p = 0.696$, *FET*); ($t(38) = -1.725$, $p = 0.981$)). The fast sexual behavior trajectory consisted of only girls and had a mean age of 16.4 years.

Diaries: Everyday expressions of sexual development

Participants described a total of 347 sexual experiences ($MIN = 0$; $MAX = 24$). Participants in the non-active sexual trajectory ($Mdn = 4$) reported fewer sexual experiences in their diaries, when compared to the sexually active ($Mdn = 9$) trajectories ($U=335.5$, $p = 0.14$).

Table 1 Two-step cluster analysis on duration, progression, speed, and experience

Trajectory	n	Duration		Progression		Speed		Experience	
		M	SD	M	SD	M	SD	M	SD
Non-active	29 (64%)	0.03	0.19	0.17	0.38	0	0	0.17	0.38
Gradual	12 (27%)	3.42	0.79	0.42	0.67	0	0	3.67	0.65
Fast	4 (9%)	1	2	3.25	0.96	1	0	3.75	0.50

Note. M=Mean. SD=Standard Deviation.

Table 2 Themes: Description, N (%), Diary reports (%)

Theme	Description	N (%)	Diary reports (%)
Romantic ($\kappa = 0.96$)	Any references to romantic experiences (e.g., finding someone attractive, being in love, experiences with romantic partner)	40 (100%)	308 (89%)
Sexual ($\kappa = 0.96$)	Any references to physical sexual contact in the broadest sense of the word (e.g., French kissing, hugging, fondling, sexual intercourse)	18 (45%)	68 (20%)
Desire ($\kappa = 0.92$)	Any references to wanting, desiring, or wishing for something in a romantic or sexual context (e.g., contact with a significant other or having sex)	33(83%)	186 (53%)
Uncertainties ($\kappa = 1$)	Any references to uncertainties, hesitations, insecurities in a romantic or sexual context (e.g., doubts about being in love or romantic relationships)	24 (60%)	96 (28%)
Social network ($\kappa = 0.94$)	Any references to anyone within the social network of the young person (e.g., conversation with a friend, family-member, or classmate about romantic desires)	25 (63%)	75 (22%)

In fact, 5 out of 28 non-active participants reported no sexual experience during the research period. They reported everyday issues about family, peers, school, and leisure-time activities, but not about sexuality. These five participants were excluded in further analyses, because their everyday expressions of sexual development could not be studied. Consequently, the study sample consisted of $n = 40$ participants, and the following analyses were based on $n = 24$ for the non-sexually active group of participants.

Qualitative analysis revealed the following themes in the diaries: 1) Romantic vs. physical aspects of sexuality; 2) Desires; 3) Uncertainties; and 4) Social context (see Table 2 for an overview).

Romantic and physical aspects of sexuality. Overall, all participants ($n = 40$, 100%) reported in 89% of the diaries about romantic aspects of sexuality, such as liking someone, romantic relationships, and being in love. Likewise, all participants within each sexual behavior trajectory reported at least once on the romantic aspects of sexuality (non-active 93% of the reports; gradual 79% of the reports; fast 97% of the reports).

Regarding the physical aspects of sexuality, 45% of all participants ($n = 40$) reported in 20% of the diaries about physical sexual activities. A difference appeared between the non-sexually active and the sexually active (fast and gradual) trajectories. Gradually and fast sexually active participants reported significantly more in their diaries about physical aspects of sexuality than did non-active participants (gradual 92% of sample, 39% of the reports; fast 26% of sample, 50% of the reports; non-active 5% of the sample, 22% of the reports) (gradual vs. non-active sample $p = 0.001$, reports $p = 0.001$; fast vs. non-active sample $p = 0.044$, reports $p = 0.001$). The diaries of gradual and fast participants did not differ regarding expressions of physical sexual activities in their diaries (sample $p = 0.088$, reports $p = 0.028$).

Desires. Diary reports were coded as desires in any situation where the participant mentioned a desire, that is, where a participant explicitly referred to wanting, wishing, or desiring something. We will discuss the importance of desires quantitatively (number of desires) within the different sexual behavior trajectories and then focus on two main desires: the desire 1) for contact with a (future) romantic partner and 2) for physical contact. Finally, the frequencies of these main desires between the three sexual trajectories will be discussed.

In general, most of the participants ($n = 33$; 83%) expressed their desires and wishes in half of the diary entries (53%). There were no differences as to the number of desires and wishes expressed in the diaries for sexual or non-sexual trajectories. Many of non-active (74%), gradual (92%), and fast (100%) participants reported their desires in approximately half of their diary reports: 54%, 57%, and 43%, respectively. As indicated, two main desires could be distinguished.

First, 60% of all participants reported the desire to make contact with a (future) romantic partner in 24% of their reports. For example, a 16-year-old sexually non-active boy (P02):

“(...) I want her to like me. (...) Anyway, I want to talk to her (...)”

Likewise, a 15-year-old girl with a gradual sexual trajectory reported (P04):

“(...) I wanted to be with him to have a nice, cozy talk with each other... just to have fun together, you know?”

A 16-year-old girl with a fast trajectory showed that she desired contact with her potential romantic partner and wrote (P09):

“(...) I wanted to see him as soon as possible.”

The number of desires for contact with a (future) romantic partner did not differ for the sexual and non-sexual trajectories. About sixty to seventy percent of the non-active (57%), gradual (62%), and fast (75%) participants reported having a desire to make contact with a (future) romantic partner, in general terms, in approximately one-quarter of the diaries (non-active 26%, gradual 24%, fast 15%).

Second, less than half of the participants (n=16; 40% of all participants) explicitly expressed their desire to have physical contact, broadly defined from less intimate to more intimate sexual behaviors (12% of all reports). Twenty-five percent of those participants, who wrote about their desire for physical contact, described their desire for French kissing (6% of the reports), 18 percent for hugging (4% of the reports), and 13 percent for sexual intercourse (3% of the reports). Participants described their desire to have physical contact mostly in the context of longing for their (potential) romantic partner after not seeing each other for a time; some participants desired to have sexual contact to make up for a previously negative situation. For example a 17-year-old boy with a gradual trajectory (P07):

“I had a fight with my girlfriend. It makes me feel a bit weird. I want to go to her and hug her.”

Several participants desired physical contact in the context of celebrating a party, feeling attractive or wanted, or having or starting a romantic relationship, for example, a 15-year-old girl with a gradual trajectory (P25):

“We went to the movies. During the movie he asked me if I wanted to go steady with him. Then and there, I wanted to kiss and hug him.”

The number of diaries that expressed the desire for physical sexual contact differed significantly for active and non-active trajectories. Except for one, all gradual participants reported the desire for sexual contact (92% of gradual participants, 23% of the reports). This was significantly more than for non-active (17% of non-active participants, 4% of the reports) and fast (25% of fast participants, 13% of the reports) participants (gradual vs. non-active: sample $p = 0.001$, reports $p = 0.001$; gradual vs. fast: sample $p = 0.003$, reports $p = 0.035$). Even though the fast participants developed rapidly from less to more intimate behaviors, most of them did not mention desiring physical contact in their everyday experiences.

Uncertainties. When participants referred to uncertainties, hesitations, or insecurities with respect to their sexual development, the report was coded as uncertainty. First, we will discuss the number of uncertainties in general and those relative to the three sexual trajectories. Second, two main uncertainties emerged from the data and will each be discussed: 1) uncertainty about whether or not liking (or being liked by) a significant other; and 2) uncertainty about physical contact. These main uncertainties will be discussed and illustrated by diary examples.

In general, 60% of all participants expressed uncertainties in 28% of the diary entries. Uncertainties were significantly more profound within the active trajectories than the non-active trajectories. Fast participants (100% of fast, 46% of the reports) reported uncertainties significantly more than non-active participants (52% of the non-actives, 19% of the reports) in the diaries (sample $p = 0.041$, reports $p = 0.003$). Gradual participants (62% of the gradual, 34% of the reports) did not unequivocally significantly differ from non-active participants in writing about uncertainties (sample $p = 0.223$, reports $p = 0.001$). As indicated, three sorts of uncertainties emerged from the data and will be discussed next.

First, 45% of all participants ($n = 40$) reported uncertainties about liking (or being liked by) a significant other in 10% of the diaries. Participants reported uncertainties about liking (or being liked by) a significant other in several contexts. The uncertainty could be because of a feeling that the other person did not like him/her (anymore). For example, a 15-year-old non-active girl mentioned her uncertainty about a boy (P05):

“ (...) he likes me too... at least I thought he did.. Suddenly he was nasty, and I didn't know why. One week went by, and I couldn't deal with it anymore, so I asked him about it (...).”

In addition, the opinion of peers could serve as a source of uncertainty. For example, a 17-year-old non-active girl mentioned (P19):

“Lately, I've been texting with a boy I used to know. (...) My friends try to talk me into it, and that's the reason I have a lot of doubts about whether or not I like him.”

Furthermore, liking a person who is already a “regular” friend serves as a source of uncertainty. A 16-year-old non-active boy reported (P29):

“I'm beginning to really like a close friend of mine, but I don't know whether this is a good idea or not. I don't want to ruin our friendship.”

With respect to uncertainties about liking (or being liked by) a significant other, more fast participants (75%) reported at least once about this uncertainty than did non-active (35%) and gradual participants (33%). However, non-active, gradual, and fast participants mentioned uncertainties about liking (or being liked by) a significant other in 8%, 12%, and 16% of the reports, respectively. The frequency of the reports did not substantially differ from each other.

Second, 18% of the participants reported uncertainties about engaging in physical contact in 5% of the diaries. A 16-year-old girl with a gradual trajectory mentioned that she did not know what her boundaries were (P03):

“Well, actually, last time we went further than just kissing, and I don't know yet how far I want to go. It felt good, that wasn't the problem; I just don't know how far I want to go and when I'll cross my line. I think about that a lot lately.”

Another 15-year-old girl with a fast trajectory mentioned her doubts about whether or not to have sexual intercourse (P40):

“Actually, he wants to do it already. I want to, too. Except that, I sort of don't want to, because I'm afraid he won't want me anymore after that.”

Significantly more gradually sexually active participants (50% of sample, 11% of reports) reported about uncertainties in the context of physical sexual behaviors than non-active participants (gradual vs. non-active; sample $p = 0.001$, reports $p = 0.001$). In fact, none of the non-active participants reported uncertainties about physical sexual behaviors. Fast participants (25% of the sample, 11% of the reports) did not unequivocally significantly differ from non-active participants (sample $p = 0.044$, reports $p = 0.006$). Gradual and fast participants also did not differ (sample $p = 0.194$, reports $p = 0.512$).

References to the social network. Diary reports referring to the social environment were coded as social network. First, we calculated the number of references to the social network, and we presented differences between the sexual trajectories. Second, the content of the diaries referring to social networks was differentiated according to social context as peer, family, or media. Third, the diary content revealed that the social network could function as a source of negativity, social support, or stimulation.

In general, a total of 63% reported at least once about their social network within the context of their sexual experiences. Significantly more fast (100% of sample, 41% of reports) and non-active participants (65% of the sample, 23% of the reports) reported on this topic, compared to gradual participants (46% of the sample, 12% of the reports) (fast vs. gradual, sample $p = 0.004$, reports $p = 0.001$; non-active vs. gradual, sample $p = 0.018$, reports $p = 0.027$). Fast participants did not report significantly more about their social network than non-active participants (sample, $p = 0.143$; reports, $p = 0.002$).

With respect to the reference group, participants mostly described peers (58% of the sample; 16% of the reports), followed by family (18% of the sample; 3% of the reports), and media (5% of the sample; 1% of the reports). All fast participants (100%) reported about peers in 28% of the reports. This was significantly more than the 33% of gradual participants, who referred to peers in 12% of the reports (sample $p = 0.004$; reports $p = 0.007$). A total of 70% of non-active participants reported about peers in 17% of the diaries and did not significantly differ from gradual or fast participants (non-active vs. gradual, sample $p = 0.389$, reports $p = 0.094$; non-active vs. fast sample $p = 0.077$, reports $p = 0.05$).

The social network may function as a source of negativity (40% of the sample; 13% of the reports), social support (25% of the sample; 3% of the reports), or stimulation (18% of the sample; 3% of the reports) within sexual development. For example, a non-active 17-year-old girl (P19) reported that the peer group served as a source of negativity, in her case insecurity:

“There are a lot of people I know getting into a romantic relationship... and I’ve still never kissed anyone, and I really hate that. Seriously, doesn’t anyone like me at all?”

Further, a non-active 14-year-old boy (P37) described a friend as a source of support:

“I talked with a friend about girls and asked him for advice.”

Finally, a 16-year-old girl with a fast trajectory (P09) reported about stimulation from the environment vis-à-vis starting to date:

“A friend made a list of boys I could choose from. And I started dating one of them. I think I kind of like him now.”

Discussion

This is the first study to explore everyday expressions of young people’s sexual behavior trajectories with the use of an elaborated definition of sexuality, incorporating internal representations such as thoughts and desires, and romantic aspects without an explicit sexual goal. We examined young people’s temporal sequence of sexual behaviors from less to more intimate behaviors and explored the differences in daily sexual expression of sexual behavior trajectories.

First, this study aimed to extend existing research by examining sexual behavior trajectories longitudinally over a two-year period using questionnaires. Our longitudinal study showed three sexual trajectories: one non-active trajectory and two sexually active trajectories. Most of the young people ($n = 29$) were found grouped in the non-active sexual trajectory, which encompassed young people involved in no or minor sexual behavior. In addition, this study differentiated between two sexually active trajectories. One group of young people ($n = 12$) was clustered into a gradually sexually active trajectory, following a stepwise progression from kissing to fondling, when dressed and undressed, and then going further than that. Another, small group of young people ($n = 4$) followed a fast sexual trajectory, rushing into sexual behaviors over a short period of time. These trajectory patterns of young people’s sexual development were also found in a previous representative Dutch sample (De Graaf et al., 2009). The percentages of sexually active young people (calculated without the non-active trajectory, because De Graaf and coworkers did not incorporate non-actives in their sample) – 75% gradual and 25% fast trajectories – are approximately similar to 73% linear and 27% non-linear sexual

trajectories found in the previous large-scale Dutch study (De Graaf et al., 2009). Consequently, this result provides our study with a foundation for possibly generalizing our own results as further support for the theory. Consequently, the results show initial insights into how young people with different trajectories experience their sexual development.

The second goal was to examine young people's everyday expressions of their sexual development. Our research showed that sexually active young people are more occupied with sexuality in their everyday expressions than non-active young people. By analyzing diary descriptions, we gained several insights vis-à-vis the themes involved in how young people expressed their own sexual development in their everyday lives. Three global themes emerged from the diary data (i.e., what young people wrote about): everyday desires (83% of all diary reports), uncertainties (60% of all diary reports), and social networks (63% of all diary reports). Active and non-active young people differed in their expressions of these experiences: Overall, sexually non-active young people experienced their sexual development only on a romantic level, whereas sexually active young people experienced their sexual development on a romantic as well as on a physical sexual level. In addition, although there were a few sexually non-active young people who reported no everyday expressions about sexuality at all, most sexually non-active young people did experience romantic thoughts, feelings, and desires. These findings demonstrate that the emerging phase of sexual development (i.e., romantic topics) may go unnoticed in research that is solely based on questionnaires.

The finding that young people were, in general, more concerned with the romantic aspects of sexuality than with explicit sex-related topics, confirms findings in previous studies (De Graaf et al., 2012; Miller et al., 1999; Simon et al., 1992; Thornton, 1990; Timmerman, 2009). Previous research on the romantic aspects of sexuality focused mainly on manifest romantic relationships (Collins et al., 2009). Our study showed that young people were also concerned with (initial) romantic fantasies and thoughts rather than just with actual romantic relationships per se.

The desire to make contact with a significant other occupied a central place in sexual development for sexually active as well as non-active young people. However, the desire for physical sexual contact did differ between the active and non-active trajectories. Gradually sexually active young people desired physical sexual contact, but non-active young people did not. It seems that sexual activities, once experienced, ensure the desire for sexual contact. Gradually sexually active young people experience sexual activity and have desires for sexual contact. Perhaps young people's desires are simply realistic; in order to engage in sexual activities, young people first need to make contact with a future

sexual partner. Consequently, non-active young people report a desire for contact but not (yet) for physical sexual activities.

In contrast to all but one of the gradual young people, only one of the fast young people reported desires for sexual contact. Previous research has shown that feelings of being more entitled to have desires is associated with fewer negative reactions to recent sexual intercourse (Zimmer-Gembeck et al., 2014). A relatively fast progression of sexual behaviors may not allow enough time for desires for physical sexual contact to develop. It is possible that fast young people experience more sexual activity than they actually wish for. Previous research showed that a short time interval between sexual acts limited young people's opportunities to direct their sexual development vis-à-vis their own needs and desires (Rademakers & Straver, 1986; Thompson, 1990). Because of the small number of fast young people in this study, future research with more faster-developing young people could examine whether enough time to establish desires for physical sexual behavior is critical for healthy sexual development.

In addition to desires, young people frequently showed uncertainties in their everyday expressions. Uncertainties became more apparent when young people were sexually active. Sexually active young people engage in relatively unfamiliar situations, where they have to develop new skills to handle social situations, decide whether or not to engage in romantic or sexual encounters, and communicate their decisions effectively with (potential) romantic or sexual partners. Therefore, it is not surprising that, when compared to sexually non-active young people, sexually active young people described significantly more uncertainties about liking (or being liked by) a significant other and engaging in physical sexual behaviors. Although not significant, uncertainties were the most profound within the fast trajectory. Future research could further examine whether high speed, from less to more sexual activities, goes hand in hand with more uncertainties about sexuality. More uncertainty in the fast trajectory is in line with earlier research showing that a gradual progression of sexual behaviors is associated with more positive evaluations of sexual experiences (Thompson, 1990). The vast number of uncertainties about romantic aspects of sexuality underscores the importance of incorporating this topic in sexual education programs.

In addition to desires and uncertainties, young people regularly referred to their social network in the diary reports. In agreement with the literature, young people reported mostly about peers (e.g., talking with peers about romantic experiences) within the context of their sexual experiences (Lefkowitz et al., 2004; Simon et al., 1992). They reported far less often about family (e.g., a conversation about sexuality with a parent) or media (e.g., a television program that mentioned sexuality). Our study showed that the social network, mainly peers, could either serve as a source of uncertainties or as a source

of support or stimulation (e.g., a peer stimulating the young person to go on a date) in terms of everyday issues about sexual development. Apparently, the peer group does not always have a negative effect (e.g., peer pressure to have sex) on sexual development. In fact, our results show that the peer group can often serve as a support group in handling the relatively new situations accompanying emergent sexual development. The fast young people were especially more concerned with their peers than the gradual and non-active young people. It could be that a relatively fast progression of sexual activity within a short period of time serves as a source of uncertainties and results in a greater focus on the peer group than gradual and non-active young people. Positive effects of peers (instead of negative) in the sense of providing support and advice to young people about their sexual development could offer direction for future research and sex education programs.

Strengths, Limitations, and Conclusions

Our findings need to be considered in light of the strengths and limitations of the study. First, our sample size was small and contained a scant number of fast sexually active young people. One reason could be that the need for the active permission of parents limited the participation of young people. Having a conversation with the parent about the research project was inevitable, since parental consent was needed in order to participate (for ethical reasons). The small number of fast sexually active young people could also be due to the fact that only young people with a native-Dutch background participated in the study. Previous research has shown that Dutch young people with a non-native background are more likely to follow a fast trajectory (De Graaf et al., 2009). Although this study consisted of a small sample size, the findings in our study contribute to sexual trajectories found in previous research. Our study's strength lies in making a generalization to the theory (Flyvbjerg, 2006), and, in this way, the research findings have added to our insights into how young people develop sexually.

Second, it is possible that participants were primed to write about the sample topics presented in the diary question. However, participants had to write in an open-ended way about a recently experienced romantic and sexual topic, which makes the priming effect different from questionnaires about general topics with no explicit situation to refer to.

Third, because of ethical reasons, sexual behavior was assessed adaptively from a progression of less to more intimate sexual behaviors, making it impossible to skip one form of sexual behavior. This adaptive nature ignores those young people who experience more intimate behaviors before less intimate behaviors. Nevertheless, this sequential appearance of sexual-behavior questions produces more reliable answers and less

reactivity (i.e., repeated exposure may influence young people to answer “yes,” while actually not performing the sexual act, and may trigger young people to perform these sexual acts, while initially not having planned on doing so). Furthermore, extensive research has shown that young people constantly follow trajectories from less to more intimate behaviors (e.g., De Graaf et al., 2009; Halpern et al., 2000; Jakobsen, 1997; Lam et al., 2002; O’Sullivan & Brooks-Gunn, 2005; Shtarkshall et al., 2009; Smiler et al., 2011; Wiegerink et al., 2010).

Fourth, reliable answers are a challenge within research about adolescence and sexuality, regardless of the research method. The longitudinal character of this study made the results more reliable: Young people with inconsistent answers on the questionnaire over the six waves (i.e., two years) were excluded from the sample. Moreover, the different research methods made it possible to compare the content of the diaries with the questionnaire data (i.e., whether both assessments were compatible with each other).

Fifth, only participants who were willing to reveal their personal lives for at least two years were included in the study. It is possible that the young people in our study are different from other young people. Nonetheless, the willingness of these participants to participate gave us the opportunity to capture rich, detailed data from everyday lives that cannot always be captured by pure observation or questionnaire data.

Despite these limitations, our findings contribute to research on emergent sexual development as a normative transition within adolescence. The vast amount of romantic expressions in the diaries could guide future studies so as to incorporate romantic aspects in their research. In addition, adjusting information to young people’s personal interests is essential for sexual education programs to succeed. Therefore, the idiosyncratic expressions of the main themes, desires, uncertainties, and social context (especially peers) could be of importance in tailoring sexual education to the individual level. This research could help support formal (e.g., school) and informal (e.g., family) sexual education by including a reflection on the personal experiencing of current or future romantic relationships and sexuality, in addition to a narrow view of sexuality, which only includes the biology of the human body and safe sex (Timmerman, 2009). Sexual education that normalizes sexual exploration in adolescence and discusses internal representations of sexual development, incorporating romantic aspects, may help young people to process and consider their preferences for different sexual and romantic acts, and, as a consequence, contribute to healthy sexual development. Future research could examine further whether it is best for young people to take their time exploring and considering sexual acts one by one, and developing desires for physical sexual contact before actually performing these sexual activities.

PART II

Young People's Everyday Conversations with their Parents about Romantic and Sexual Issues

