Virginity Loss and Pregnancy in US and Dutch Teen Girl Magazines:
A Content-Analytic Comparison

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Abstract

Using Hofstede’s cultural dimension of masculinity/femininity, this quantitative content analysis investigated the coverage of virginity loss (i.e., occurrence, tone, and association with negative consequences) and pregnancy (i.e., occurrence, tone, and negative consequence of sex) in 2,496 feature stories from all 2006-2008 issues of three US and three Dutch teen girl magazines. Stories about virginity loss and pregnancy occurred equally often in the US and Dutch magazines. Pregnancy was attached with a negative tone in both the US and Dutch coverage. Virginity loss, however, was portrayed with a positive tone more often in the Dutch coverage than in the US coverage. In addition, pregnancy was depicted as a negative consequence of sex more often in the US coverage than in the Dutch coverage. Implications are discussed in terms of differences in adolescent sexual socialization in the United States and the Netherlands.

Keywords: Adolescents, youth, teenagers, sexuality, print media, cross-national comparative research; culture
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Teen magazines play an important role in adolescent sexual socialization. Not only are teen magazines tailored to cover a variety of topics about sex that are relevant to young people (APA, 2007; Durham, 1996, 1998; Garner, Sterk, & Adams, 1998; Walsh-Childers, Gotthoffer, & Lepre, 2002; Ward, 2003), but they also cover sexual issues in ways that address adolescents more directly than other media (Ward, 2003). In fact, many teen readers rely on magazines as a “sounding board” and “close confidant” (Kaiser Family Foundation, 2004, p. 2). Moreover, teen magazines are easily available at supermarkets, magazine stands, and public libraries (Ward, 2003). Finally, teen magazines are popular among adolescents, with about six out of ten teenagers reading them (Roberts & Foehr, 2004).

Given the importance of teen magazines for adolescents, the coverage of sex-related topics in teen magazines has received considerable research attention (e.g., Bleakley, Hennessy, Fishbein, & Jordan, 2008; Carpenter, 1998, 2001; Durham, 1998; Farvid & Braun, 2006; Firminger, 2006; Stankiewicz & Rosselli, 2008; Taylor, 2005; Willemsen, 1998). Two sex-related topics that teen girl magazines traditionally cover are virginity loss and pregnancy (Carpenter, 2001; Clarke, 2009; Hust, Brown, & L’Engle, 2008). These two topics are central to adolescent sexuality because a teenager’s first coital experience often shapes successive sexual experiences and attitudes (Billy, Landale, Grady, & Zimmerle, 1988; Carpenter, 2001). Moreover, pregnancy is often considered a negative consequence of virginity loss (Carpenter, 2001, 2005). Thus, in countries such as the United States (US), the importance of maintaining one’s virginity is often stressed to teenagers in order to prevent the risk of pregnancy (Tolman, 2002).
Despite the important role of virginity loss and pregnancy in adolescent sexuality, our knowledge about how teen magazines cover these two topics is limited. Only one study to date has dealt with the coverage of virginity loss in teen magazines (Carpenter, 2001). The coverage of pregnancy has never been studied in its own right, but only in the broader context of the dangers associated with sex (e.g., Clarke, 2009; Garner, Sterk, & Adams, 1998; Stankiewicz & Rosselli, 2008). We also know little about the extent to which the coverage of these two topics may differ between cultures, as existing research shows a strong bias towards the analyses of US magazines. Because approaches to (adolescent) sexuality are culturally dependent (Ford & Beach, 1951; Simon & Gagnon, 1984), the coverage of teen magazines is likely to vary between countries. Cross-cultural comparative research may deepen our understanding of the potential limitations of single-country research and shed light on how virginity loss and pregnancy are covered in different cultures. Therefore, it is the goal of this study to (a) explore the largely neglected topic of virginity loss and pregnancy in the coverage of teen magazines; (b) describe potential country differences in the coverage of these two topics; and (c) explain such differences from a cross-cultural comparative perspective.

**Country Differences, Virginity Loss and Pregnancy**

Against the backdrop of Hofstede’s (2001) dimensions of national culture, two countries that are useful to compare in terms of teenage virginity loss and pregnancy are the US and the Netherlands. Based on extensive cross-national empirical research, Hofstede (2001) has identified five specific dimensions of national culture in which countries differ. These five dimensions include: power distance, uncertainty avoidance, individualism/collectivism, masculinity/femininity, and long-term/short-term orientation. According to Hofstede’s research (2001), the US and the Netherlands are similar on four of the five dimensions but differ
substantially on the masculinity/femininity dimension, with the US being a masculine society and the Netherlands being a feminine society. In masculine societies, men are usually defined as “assertive, tough, and focused on material success; women are [...] more modest, tender and concerned with the quality of life” (Hofstede, 1998a, p. 6). By contrast, feminine societies are usually marked by both men and women being modest, tender, and focused on the quality of life (Hofstede, 1998a).

The difference between the US and the Netherlands in only the masculinity/femininity dimension is desirable for cross-national comparative research for two reasons. First, with regards to the logic of comparative research (Dogan & Pelassey, 1984; Mackie & Marsh, 1995), the dissimilarity of the US and the Netherlands in only the masculinity/femininity dimension generally facilitates the explanation of potential differences in the coverage of virginity loss and pregnancy in US and Dutch teen magazines. If the coverage differs between the US and the Netherlands, we can conclude that it is related to the masculinity/femininity dimension (i.e., the one dimension in which these two countries differ). Such insights can also help us make better sense of existing research that has found country differences in the coverage of teen magazines. For example, Carpenter’s (2001) pioneering work on the coverage of virginity loss in one US (Seventeen) and one German teen magazine (Bravo) showed that the coverage in the US and Germany differed along the predictable lines of liberalism in adolescent sexuality. However, for Hofstede’s (2001) aforementioned general dimensions in which countries differ (and which can explain sexual liberalism), Carpenter’s comparison of the US and Germany produced inconclusive results. As Hofstede (2001) has shown, the US and Germany differ in terms of individualism (i.e., the degree to which people look after only themselves and their family) and uncertainty avoidance (i.e., the degree to which people feel threatened by uncertainty). As a
result, it remains unclear which of these two dimensions, or both jointly, explain the differences that Carpenter found in the coverage of the US and German teen magazines.

The second advantage of the masculinity/femininity dissimilarity between the US and the Netherlands is that it helps us derive specific factors which allow us to explicate more precisely why country differences in the coverage of virginity loss and pregnancy may occur.¹ As previous research suggests (Hofstede, 1998b; Schalet, 2000; Joshi, Peter, & Valkenburg, 2011), the masculinity/femininity dimension is linked to three factors that are directly relevant to virginity loss and pregnancy. These three factors are sex education, accessibility to contraceptives, and parental attitudes about teenage sex.

With regards to sex education, many US public high schools teach teenagers to abstain from sex until marriage (e.g., Herzog, 2008; Luker, 2006). This focus on abstinence is typical of masculine societies (Hofstede, 1998b). In contrast, schools in the Netherlands teach students that virginity loss before marriage is permissible. Dutch sex education emphasizes that love, and not necessarily marriage, should be present, and that virginity loss is something normal for teenagers (Schalet, 2000, 2011). The Dutch approach is typical of a feminine society (Hofstede, 1998b).

Because abstinence is the primary form of sex education offered to young people in the US (e.g., Herzog, 2008; Luker, 2006), teenagers are often not consistently informed about contraceptives (Luker, 2006; Tolman, 2002). Moreover, contraceptives are sometimes difficult to obtain in the US (Luker, 2006). This lack of information about, and accessibility to, contraceptives usually results in low contraceptive use among sexually active US teenagers (Carpenter, 2005; Luker, 2006; Tolman, 2002). In contrast, Dutch teenagers are typically educated about contraceptives in schools. Contraceptives – notably birth control pills – are more affordable and accessible in the Netherlands than in the US (Schalet, 2000, 2010). As Hofstede
(1998b, p. 165) has shown, this difference between the US and the Netherlands coincides with the differences between feminine and masculine societies.

Regarding parental attitudes toward adolescent sexuality, the conservative and religious right of the US consider teenage sexuality to be problematic and disruptive (Schalet, 2000, 2010). Many US parents discourage sex before marriage by emphasizing the dangers, risks, and diseases associated with sex (Luker, 2006; Schalet, 2000). The attitudes toward adolescent sex of many US parents reflect the moralistic approach to sexuality that is characteristic of masculine societies (Hofstede, 1998b). In feminine societies, matter-of-fact attitudes toward adolescent sexuality prevail (Hofstede, 1998b, p. 175). For example, Dutch parents usually approach teenage sex as a normal part of life (Schalet, 2000, 2010). Love relationships and the “social responsibility of teenagers […] make their sexuality a ‘normal’ phenomenon” (Schalet, 2000, p. 76). Moreover, although Dutch teenagers are made aware of the risks associated with sex, parents in the Netherlands hardly use the negative consequences of sex as a reason for teenagers not to have sex (Schalet, 2000).

In conclusion, the masculinity/femininity dimension, and the specific factors derived from it, such as sex education, accessibility to contraceptives, and parental attitudes toward adolescent sexuality, may help to explain differences in the US and Dutch approaches to adolescent sexuality. To a certain extent, teen magazines usually mirror the prevailing cultural norms regarding adolescent sexuality (Carpenter, 2001; Schalet, 2010). Therefore, potential differences in the coverage of virginity loss and pregnancy in US and Dutch teen magazines may generally reflect the differences between the two countries in the masculinity/femininity dimension. Specifically, such differences may be predicted on the basis of how the two countries vary in terms of sex education, accessibility to contraceptives, and parental attitudes toward
adolescent sexuality.

**Virginity loss and teen magazines.** Virginity loss is almost universally recognized as a turning point for teenagers as they enter adulthood (Carpenter, 2005). It is therefore not surprising that previous research has revealed that a substantial portion of sex-related material in teen magazines deals with virginity loss (Carpenter, 2001, 2005). However, cross-national comparative content analyses of virginity loss are scarce. The only comparative study to date showed that, in both the US and the German coverage, virginity loss was mentioned predominantly within the context of a loving relationship (Carpenter, 2001). In both countries, losing one’s virginity was depicted as a gradual experience through the addition of new sexual activities over time. Nevertheless, the German coverage approached virginity loss positively and emphasized the pleasures rather than the risks of sex. The US coverage often took a negative stance toward virginity loss. In addition, the US coverage frequently emphasized the risks and dangers of having sex to discourage female readers from losing their virginity, while discussions about pleasure occurred rarely.

Carpenter (2001) was the first to address the coverage of virginity loss in teen magazines from a cross-national comparative perspective. Nevertheless, several important questions remain unaddressed. First, and most generally, we do not know how often virginity loss is covered in teen magazines, and to what extent the occurrence of virginity loss differs by country. Second, the tone of virginity loss coverage and the potential country differences of tone have not been a main focus of Carpenter’s study, but have been investigated within the context of broader questions. Finally, it is unclear how often negative consequences are associated with virginity loss, and whether country differences for these negative consequences exist. Investigating the negative consequences of virginity loss is particularly important, as they are frequently used in
the US to discourage adolescents from having sex (Schalet, 2000).

Our hypotheses focus on how virginity loss is portrayed in US and Dutch teen girl magazines in terms of occurrence, tone, and the negative consequences associated with virginity loss. We anticipate virginity loss to occur more often in the Dutch teen magazines than in the US teen magazines (H1a). After all, sex seems to be more normalized and openly discussed in the Netherlands than in the US (Schalet, 2000, 2010). Furthermore, due to its comprehensive sex education curricula and easy accessibility to contraceptives, we expect the Dutch coverage of virginity loss to be more positive than the US coverage (H1b). Finally, because the US approach to virginity loss focuses more strongly on the risks and dangers of adolescent sex than the Dutch approach, we believe virginity loss will be associated with negative consequences more often in the US magazines than in the Dutch magazines (H1c).

Pregnancy and teen magazines. Although teenage pregnancy constitutes an important topic in adolescent sexuality (Clarke, 2009; Hust et al., 2008), little is still known about the coverage of pregnancy in teen magazines. Interviews with US teenagers on the subject typically reveal a strong fear of pregnancy (Carpenter, 2005; Thompson, 1995; Tolman, 2002). Moreover, in the US, teen pregnancy is often mentioned as a reason not to have sex (Schalet, 2000). Consistently high teenage pregnancy rates in the US have also made teen pregnancy a public health concern and a social problem (Amy & Loeber, 2007; Schalet, 2011; UNICEF, 2001). In the Netherlands, teen pregnancy is not as much of a public health concern or a social problem as it is in the US (van Loon, 2003; Schalet, 2000). As a result, the Dutch do not fear pregnancy in the same way as people in the US (Schalet, 2000, 2010). Dutch teenagers are aware that sexual activity may lead to pregnancy, but it is rarely used as a reason not to have sex because there is a common understanding that proper contraceptive use will protect against any unwanted
consequences of sex (Schalet, 2010).

Given the scarcity of previous research on how teen magazines cover pregnancy, we formulate hypotheses on the same three indicators identified as important for the coverage of virginity loss - that is, the occurrence of pregnancy in magazine coverage, the tone attached to it, and the explicit mention of pregnancy as a negative consequence of sex. Contraceptives are more easily available for Dutch adolescents than for US adolescents, and teen pregnancy is not as much of a public health concern in the Netherlands as it is in the US. Thus, we expect the US teen magazines to cover pregnancy more frequently than the Dutch magazines (H2a). In addition, teen pregnancy is more feared in the US than in the Netherlands, and conveyed to adolescents as a reason not to have sex. Therefore, we expect the US teen magazines to depict teenage pregnancy with a negative tone more often than the Dutch magazines (H2b). Finally, due to difficulties in obtaining contraceptives in the US (Luker, 2006), US teenagers are more likely to get pregnant than Dutch teenagers. We therefore expect pregnancy to be treated as a negative consequence of sex more often in the US coverage than in the Dutch coverage (H2c).

Method

Sample

We conducted a quantitative content analysis of the US teen girl magazines Seventeen, CosmoGirl! (US edition), and Teen, as well as the Dutch teen girl magazines Fancy, CosmoGirl! (Netherlands edition), and Girlz!. These magazines were chosen because they are the most popular teen girl magazines in the US and the Netherlands, and serve as a point of orientation for other teen girl magazines in both countries (Carpenter, 1998, 2001). Compared to Carpenter’s (2001) study, which investigated only one teen magazine per country, the broad selection of magazines in this study provides a more encompassing overview of how teen magazines cover
virginity loss and pregnancy in different countries. We opted for magazines from 2006, 2007, and 2008 because we wanted to obtain a comprehensive picture of the most up-to-date coverage of virginity and pregnancy.

The unit of analysis was a feature story. A feature story is a nonfiction story that intends to inform or amuse the reader through standard articles, interviews, quotes, sidebars, fillers, or question and answer pieces. To qualify as a feature story, a story had to be presented as one semantic unit defined by homogenous content, colors, a frame around the story, and separate headlines. There were 753 US and 1743 Dutch feature stories which made up the total sample of 2496 feature stories.

All feature stories were analyzed for whether they explicitly mentioned virginity (loss) and pregnancy. Of the 2496 feature stories, 115 (4.6%) stories were virginity-related, and 131 (5.2%) stories were pregnancy-related. Of the 115 stories about virginity, 36 (31.3%) stories were from the US magazines and 79 (68.7%) stories were from the Dutch magazines. Of the 131 pregnancy-related stories, 38 (29%) stories were from the US coverage and 93 (71%) stories were from the Dutch coverage.

Procedure

The codebook for this study was an extension of a codebook used in a previous content analysis of US teen girl magazines (Joshi, Peter, Valkenburg, 2010). Three native American-English speakers served as coders for the US teen magazines, and five native Dutch speakers served as coders for the Dutch teen magazines. The coders were trained by the principle investigator and a research assistant. Before coder training started, the coder trainers took an inter-trainer reliability test to preclude artifacts in the coding as a result of the trainers’ idiosyncratic understanding of the codebook (Peter & Lauf, 2002). The inter-trainer reliability
test showed very high agreement between the trainers (average inter-trainer reliability was 95.2\%, Cohen’s Kappa = .87).

Coder training took place separately for each country team, and occurred over the course of two days. Each team was trained for a total of seven hours and each coder coded five articles at home. Once coder training was completed, an inter-coder reliability test was conducted separately for the US and Dutch groups with seven randomly sampled stories from both the US and Dutch magazines. To make sure the coders’ understanding had not changed during the course of coding, we conducted an intra-coder reliability test four weeks after the inter-coder reliability test. The inter- and intra-coder reliabilities were generally very good (see below).

**Virginity loss.** Virginity loss was operationalized with three indicators: occurrence, tone, and negative consequences associated with virginity loss. We operationalized occurrence by assessing whether virginity loss was mentioned in the story. Categories included “yes” and “no.” The average inter-coder reliabilities for occurrence were 100\% (Cohen’s Kappa = 1.0) for both the American and Dutch groups. For occurrence, the average intra-coder reliability was 100\% (Cohen’s Kappa = 1.0) for the American group, and 95.8\% (Cohen’s Kappa = .90) for the Dutch group.

We measured tone by asking, “How is virginity loss mentioned in the story?” Categories included “positively (e.g., virginity loss is a good thing, etc),” “negatively (e.g., teens are too young for sex),” “both positively and negatively mentioned,” and “neither positively nor negatively (i.e., neutrally) mentioned.” For the purpose of our analysis, we recoded the categories into “positively,” “negatively,” and “both positively and negatively, and neutrally mentioned.” The average inter-coder reliabilities for tone were 100\% (Cohen’s Kappa = 1.0) for the American and Dutch groups. For tone, the average intra-coder reliability was 100\% (Cohen’s
Kappa = 1.0) for the American group, and 95.8% (Cohen’s Kappa = .90) for the Dutch group.

We assessed the negative consequences associated with virginity loss by asking, “Are the anticipated consequences of virginity loss positive (e.g., you are popular once you lose your virginity), or negative (e.g., you can get pregnant if you lose your virginity)?” Categories to choose from were “positive,” negative,” “neutral,” “any combination of more than one of the above,” and “not mentioned.” Because the focus of this study was on the distinct consequences of virginity loss, we excluded the categories “neutral,” “any combination of more than one of the above,” and “not mentioned,” and recoded the remaining categories as “exclusively positive” and “exclusively negative.” The average inter-coder reliabilities for negative consequences were 100% (Cohen’s Kappa = 1.0) for the American and Dutch groups. The average intra-coder reliability was 100% (Cohen’s Kappa = 1.0) for the American group, and 95.8% (Cohen’s Kappa = .90) for the Dutch group.

**Pregnancy.** The pregnancy coverage was coded in terms of occurrence, tone, and negative consequence of sex. We investigated occurrence by assessing whether pregnancy was mentioned in the story. Categories included “yes” and “no.” The average inter-coder reliability for occurrence was 95.2% (Cohen’s Kappa = .89) for the American group, and 100% (Cohen’s Kappa = 1.0) for the Dutch group. For occurrence, the average intra-coder reliability was also 95.2% (Cohen’s Kappa = .89) for the American group, and 100% (Cohen’s Kappa = 1.0) for the Dutch group.

We operationalized tone by asking, “How is pregnancy mentioned in the story?” Categories included “positively (e.g., teen pregnancy teaches responsibility),” “negatively (e.g., teens are too young to become parents),” “both positively and negatively mentioned,” and “neither positively nor negatively (i.e., neutrally) mentioned.” For the purpose of our analysis,
we recoded the categories into “positively,” “negatively,” and “both positively and negatively, and neutrally mentioned.” The average inter- and intra-coder reliabilities for tone were 95.2% (Cohen’s Kappa = .89) for the American group, and 100% (Cohen’s Kappa = 1.0) for the Dutch group.

We assessed negative consequence of sex by asking, “Is pregnancy treated as a negative consequence of sex?” Categories to choose from included “yes” and “no.” The average inter- and intra-coder reliabilities for negative consequence of sex were 95.2% (Cohen’s Kappa = .89) for the American group, and 100% (Cohen’s Kappa = 1.0) for the Dutch group.

Results

Virginity Loss

Hypothesis 1a stated that virginity loss would be mentioned more often in the Dutch magazines than the US magazines. Table 1 indicates the country differences for each indicator of virginity loss and pregnancy, showing both the absolute figures and pertinent percentages. Because our data were of the nominal level, chi-square analyses were conducted to test for country differences in virginity loss and pregnancy between the US and Dutch magazines. Virginity loss occurred in 4.8% of the US stories and 4.5% of the Dutch stories. There was no significant difference, $\chi^2(1, N=2,496) = 0.07$, $\phi = .005$, ns. Therefore, Hypothesis 1a was not supported.

Hypothesis 1b posed that virginity loss would be depicted with a positive tone more often in the Dutch teen girl magazines than in the US teen girl magazines. Of the stories about virginity loss, 2.8% of the US and 16.5% of the Dutch stories mentioned virginity loss with a positive tone. Accordingly, 27.8% of the US and 13.9% of the Dutch stories mentioned virginity loss with a negative tone. This difference was significant, $\chi^2(2, N=115) = 6.37$, Cramer’s $V =$
.236, $p < .05$. Hypothesis 1b was therefore supported.

Hypothesis 1c stated that virginity loss would be associated with negative consequences more often in the US teen girl magazines than in the Dutch teen girl magazines. Of the stories about virginity loss, 47.2% of the US stories and 13.9% of the Dutch stories linked virginity loss with negative consequences. A significant difference between the Dutch and US stories was found, $\chi^2(1, N=115) = 14.89$, $\varphi = .360$, $p < .001$. Thus, Hypothesis 1c was supported.

**Pregnancy**

Hypothesis 2a predicted that pregnancy would be mentioned more often in the US teen girl magazines than in the Dutch teen girl magazines. Pregnancy was mentioned in 5.1% of the US and 5.3% of the Dutch stories, which did not differ significantly, $\chi^2(1, N=2,496) = 0.06$, $\varphi = .005$, $ns$. Hypothesis 2a was not supported.

Hypothesis 2b stated that pregnancy would be depicted with a negative tone more often in the US coverage than the Dutch coverage. Of the stories about pregnancy, 76.3% of the US stories and 57.0% of the Dutch stories mentioned pregnancy with a negative tone, and 2.6% of the US and 8.6% of the Dutch stories mentioned pregnancy with a positive tone. Overall, the difference between the US coverage and the Dutch coverage was not significant, $\chi^2(2, N=131) = 4.59$, Cramer’s $V = .187$, $ns$. Therefore, Hypothesis 2b was not supported.

Hypothesis 2c posed that pregnancy would be depicted as a negative consequence of sex more often in the US teen girl magazines than in the Dutch teen girl magazines. Of the stories about pregnancy, 92.1% of the US and 52.7% of the Dutch stories treated pregnancy as a negative consequence of sex. This difference was significant, $\chi^2(1, N=131) = 17.75$, $\varphi = .369$, $p < .001$. Hypothesis 2c was supported.

**Discussion**
Teen magazines typically deal with topics related to adolescent sexuality (e.g., APA, 2007; Durham, 1998; Ward, 2003), so it can be expected that they cover virginity loss and pregnancy. Against the backdrop of Hofstede’s cultural dimension of masculinity/femininity and specific country differences in sex education, accessibility to contraceptives, and parental attitudes toward adolescent sexuality, our study investigated how the coverage of virginity loss and pregnancy differed between US and Dutch teen girl magazines.

**Virginity Loss**

The US and Dutch teen magazines did not differ in how often they covered virginity loss. Generally, virginity loss was rarely mentioned in the teen magazines of both countries. This surprising finding suggests a modification of the general assumption that the normalization of adolescent sexuality (Schalet, 2000, 2010) causes an increase in the coverage of virginity loss. It may be that in countries such as the Netherlands, where adolescent sexuality is normalized, virginity loss has become such an integral part of adolescent sexual development that it is hardly worth reporting. In countries such as the US, where adolescent sexuality is not yet fully normalized, virginity loss may be an issue that is harder to report. As a result, teen magazines from these two countries resemble each other in how often they cover virginity loss, but perhaps for different reasons.

In line with our expectations, the Dutch magazines mentioned virginity loss with a positive tone more often than the US magazines. The US magazines rarely mentioned any positive aspects of virginity loss. This finding reflects Hofstede’s (2001) distinction between the Netherlands as a feminine society and the US as a masculine society. Masculine societies such as the US hold more “moralistic attitudes about sexuality” (e.g., abstinence until marriage), where “premarital sex [is] socially acceptable at a later age, or not at all” and “information on
contraception is limited” (p. 175). In contrast, feminine societies such as the Netherlands have “matter-of-fact attitudes about sexuality,” where “premarital sex [is] socially acceptable at an early age” and “contraceptives and information [are] freely available” (Hofstede, 1998b, p. 175).

US teen magazines attached significantly more negative consequences to virginity loss than Dutch teen magazines. This finding is in line with previous findings about a stronger normalization of teen sex in the Netherlands than in the US (Schalet, 2000, 2010), but it also merges with Hofstede’s (2001) masculinity/femininity dimension. In masculine societies, sex can easily be associated with exploiting your sexual partner; girls often report negative feelings about their first sexual experience, and sexual harassment is a sensitive issue (Hofstede, 1998b). In contrast, sex is largely seen as a relationship between partners in feminine societies. Moreover, “girls do not report negative feelings about first sex” and “unwanted intimacies are not such a big issue” (Hofstede, 1998b, p. 175). Thus, the material that US and Dutch adolescents consume from these magazines seems to reflect the differences that Hofstede outlines between masculine and feminine societies.

**Pregnancy**

Contrary to our expectations, pregnancy was mentioned equally often in the teen magazine coverage of the US and the Netherlands. This finding does not coincide with the greater number of teenage pregnancies in the US than the Netherlands (UNICEF, 2001). Our results also contradict Hofstede’s (2001) masculinity/femininity dimension, as well as specific country differences, such as the type of sex education programs and accessibility to contraceptives, which all suggested that pregnancy would be less of an issue in the Netherlands. One explanation for this unexpected result may be that teen pregnancy generally presents a serious incident, with well-documented repercussions and adverse long-term effects (Amy &
Loeber, 2007; Thompson, 1995). Moreover, magazines in the US and Netherlands may have the same ultimate goal, which is to create magazines that people will purchase and read. If teen pregnancy is an important topic in both countries, then the coverage of teen pregnancy is likely to occur equally often in the US and Dutch magazines. Thus, the similarity of the US and Dutch coverage not only reflects the general seriousness of teen pregnancy but also the popularity of the topic, regardless of cultural differences.

This explanation may also apply to our second unexpected finding: US and Dutch magazines both covered teen pregnancy with a negative slant. In feminine societies, such as the Netherlands, girls may have more agency in sexual relations (Hofstede, 1998b) and teenage sex may be more normalized than in masculine societies such as the US. These cultural differences, however, did not translate into a different evaluation of pregnancy in the coverage of teen magazines. According to the coverage of both the US and Dutch magazines, teenage pregnancy is generally equated with failure. Therefore, future research should focus less on the tone of the coverage and more on the reasons for why teen pregnancy is portrayed negatively in magazine coverage, especially because consumption of this information may impact teens’ impressions of how a society deals with teen pregnancy (Gerbner, 1998). In a masculine society, with its emphasis on morals and norms, becoming pregnant as a teenager may be seen as a sign of lacking morals. Feminine societies, however, emphasize (female) sexual agency, so teenage pregnancy may point to a lack of sexual self-efficacy.

A difference did emerge between the coverage of the US and the Netherlands in whether pregnancy was depicted as a negative consequence of sex. US magazines portrayed pregnancy as a negative consequence of sex more often than the Dutch magazines. This finding resonates with the higher prevalence of moralistic attitudes in a masculine society, such as the US, compared to
a feminine society, such as the Netherlands (Hofstede, 1998b). This finding is in line with a
danger discourse of adolescent sexuality in the US, which emphasizes pregnancy as a potential
negative consequence of sex (Schalet, 2000, 2011). In the Netherlands, adolescent sex is not
necessarily linked to the prospect of teenage pregnancy. For example, although Dutch parents are
aware of pregnancy as a potential risk of adolescent sexual activity, they do not use the risk of
pregnancy as a reason for teens to abstain from sex (Schalet, 2000, 2010). The Dutch magazine
coverage reflects this same stance, with about half of the Dutch stories not portraying pregnancy
as a negative consequence of sex, and half of the stories depicting it as a negative consequence of
sex.

**Limitations and Future Research**

Our study is one of the first to investigate both the coverage of virginity loss and
pregnancy in teen girl magazines from a cross-national perspective, but has some limitations.
First, we focused only on the most popular teen magazines and only investigated the years 2006
to 2008. Although existing research indicates no major changes in the coverage of teen
magazines as a whole (Carpenter, 1998, 2001), our results cannot automatically be generalized
to other teen magazines and time periods. Second, we cannot preclude that the country
differences have resulted, at least partly, from different business models and editorial policies of
the teen magazines. Future research should investigate this issue more elaborately. The US and
Dutch teen magazines must compete in a media market that is increasingly dominated by the
internet, which may result in similar business models and editorial policies in both countries.
Therefore, we believe that cultural factors affect the coverage in teen magazines more strongly
than economic considerations. Finally, some industry experts suggest that the Web is one of the
biggest threats to teen magazines, while others say that vacillating between the print and online
arenas is becoming more common for teen magazine readers (Kaiser Family Foundation, 2004). As a result, many teen magazines have created an online version of their publication to maintain readers’ interests in between issues by offering at least 50 percent new content online which is not found in their print version (Kaiser Family Foundation, 2004). Future research should conduct a content analysis of similarities and differences between the print version of teen magazines and their internet counterparts.

In conclusion, similar to earlier research (Carpenter, 2001), our study has shown that the coverage of virginity loss and pregnancy in teen magazines partly reflects more general cultural differences. Whereas existing studies have only described such cross-national differences in the coverage, we have shown that they may be related to Hofstede’s (2001) cultural dimension of masculinity/femininity, and by extension to more specific country characteristics such as sex education, access to contraceptives, and the normalization of adolescent sexuality. Generally speaking, the masculinity/femininity dimension provided a good predictor of whether virginity loss was associated with negative consequences, pregnancy was a negative consequence of sex, and how positively virginity loss was portrayed. These results could point to a relationship between the masculinity/femininity dimension and a risk discourse of adolescent sexuality (Schehr, 2005; Schalet, 2011). With a pragmatic attitude towards sexuality and greater female empowerment, adolescent sexuality is more pleasure-oriented and less risk-oriented in feminine societies than in masculine societies. We believe that conceptualizing adolescent sexuality in terms of a pleasure or risk discourse, and comparing it along the masculinity/femininity dimension, may be key to understanding how and why cultures differ in their acceptability of adolescent sexual activity.
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Endnotes

1 Typically, country differences in teenage pregnancy rates have been related to the uncertainty avoidance dimension. Countries low in uncertainty avoidance have more teen pregnancies than countries high in uncertainty avoidance (Hofstede, 1998b). Both the US and the Netherlands are low in uncertainty avoidance, but differ greatly in their teenage pregnancy rates. The Netherlands has one of the lowest teen birth rates among developed nations, while the US has the highest (UNICEF, 2001). As a result, the crucial explanation for this difference between the US and the Netherlands may lie in the masculinity/femininity dimension rather than in the uncertainty avoidance dimension. As Hofstede’s (1998b) research has shown “[t]eenage pregnancies in industrialized nations occur most in countries that combine weak uncertainty avoidance with masculinity” (p. 154).
Table 1

*Virginity Loss and Pregnancy in US and Dutch Teen Girl Magazines*

<table>
<thead>
<tr>
<th></th>
<th>US magazines</th>
<th></th>
<th>Dutch magazines</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ratio</td>
<td>Percentage</td>
<td>Ratio</td>
<td>Percentage</td>
</tr>
<tr>
<td>Virginity Loss</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occurrence</td>
<td>36/753</td>
<td>(4.8%)</td>
<td>79/1743</td>
<td>(4.5%)</td>
</tr>
<tr>
<td>Positive tone</td>
<td>1/36</td>
<td>(2.8%)*</td>
<td>13/79</td>
<td>(16.5%)*</td>
</tr>
<tr>
<td>Negative consequences</td>
<td>17/36</td>
<td>(47.2%)**</td>
<td>11/79</td>
<td>(13.9%)**</td>
</tr>
</tbody>
</table>

Pregnancy

<table>
<thead>
<tr>
<th></th>
<th>US magazines</th>
<th></th>
<th>Dutch magazines</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ratio</td>
<td>Percentage</td>
<td>Ratio</td>
<td>Percentage</td>
</tr>
<tr>
<td>Occurrence</td>
<td>38/753</td>
<td>(5.1%)</td>
<td>93/1743</td>
<td>(5.3%)</td>
</tr>
<tr>
<td>Negative tone</td>
<td>29/38</td>
<td>(76.3%)</td>
<td>53/93</td>
<td>(57.0%)</td>
</tr>
<tr>
<td>Negative consequence of sex</td>
<td>35/38</td>
<td>(92.1%)**</td>
<td>49/93</td>
<td>(52.7%)**</td>
</tr>
</tbody>
</table>

*Note.* The figures in each cell represent the ratio of relevant stories for a specific indicator to the number of base stories, and the pertinent percentage. For instance, with regards to the occurrence of virginity loss, 36 out of 753, or 4.8%, of the US stories mentioned virginity loss (see row ‘Occurrence’). Of these 36 stories, one, or 2.8%, had a positive tone toward virginity (see row ‘Positive tone’).

* p < .05. *** p < .001.