THE NEEDS OF INFORMATION SERVICES ON REPRODUCTIVE HEALTH, STIs AND HIV IN MIDDLE ADOLESCENCE

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Abstract

Reproductive health information including STIs and HIV/AIDS has been provided in community health center. In fact, the level of adolescent knowledge in terms of sexual health and its risks is still low. This study aims to identify adolescent needs of information services on sexual and reproductive health including STIs and HIV/AIDS. All adolescent aged 15 to 19 years in Ngesrep village were recruited as a sample. There were 237 adolescents participated in this cross sectional study. The findings showed that half of them have low level of knowledge, nearly half have permissive sexual attitudes, 15% have engaged in sexual intercourse. Adolescents need comprehensive information including pregnancy, sexual diseases and HIV/AIDS which provided by health workers at school health programs.

Introduction

There are health issues facing adolescents in Indonesia which are increasing number of adolescents with Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS), Sexually Transmitted Infections (STIs), unwanted pregnancy, and drugs and addicitives substance abuse. It is known that half of the 63 million adolescents aged 10 to 24 years in Indonesia are prone to unhealthy behavior. However, many researchers consider adolescent sexual behaviors are like an iceberg, because of its sensitivity it is difficult to disclose (National Population and Family Planning Board (BKKBN), 2010; Department of Health, 2005; Irmawati, 2013).

Several studies in Central Java revealed that adolescent dating behavior is not only limited to holding hands or kissing, but up to touched the genital organs and petting. Approximately 5% to 61.4% of adolescents in Semarang and other major cities in Central Java had risky sexual intercourse including having sex with his/her partner before marriage (Azinar, 2013; BKKBN, 2010; Department of Health, 2005; Shaluhiyah 2006; Suryoputro, 2006).

Many factors determine the behavior of adolescents, including relationships with parents, media exposure, peers influence and lack of knowledge about reproductive health, which these are influential factors in adolescent sexual behavior. Lack of adolescents understanding on reproductive health is due to lack of information and reproductive health services which adolescent-friendly (Minah, 2014).

Lack of access to adolescent health...
services, including incomplete service facilities causes adolescent do not realize themself is in trouble, adolescent do not know the health care facility required, adolescent knows health care facilities needed but not accessible (time, cost, or must come with parents), and adolescent know the health care facilities needed but do not want to access (long waiting times and the health personnel was not friendly to adolescents). Given the Eastern culture that consider reproductive health discussions with unmarried adolescents is taboo, the possibility of the provision of information on reproductive health and sexuality in family and school environment becomes relatively more difficult. Adolescent then access the information they need through the media and peers. This is what should become a concern, because the information provided by peers and the media rarely designed for educational purposes (Coleman, 2005; Suwarni, 2009).

As a consequence of this situation, the needs of reproductive health information services to unmarried and sexually active adolescents are not met. The provision of reproductive health information which significant and service providers that related to sexual and reproductive health needs for unmarried adolescents are also not available. Meanwhile, information provided by non-governmental agencies or non-governmental organization (NGO) is undoubtedly still limited in terms of resources, quality, quantity, and coverage.

Therefore, this study aims to analyze the needs of adolescent reproductive health information services in accordance with the desire, as well as the characteristics of youth culture. Knowledge, attitudes, and behavior of adolescents related to reproductive health are also a determinant of the information service needs. Variables of the current study include the characteristics, the level of knowledge, attitudes towards sexuality, adolescent sexual behavior, and the needs for reproductive health information service that consists of priority material, who is giving the desired material, and the place of appropriate materials according to adolescent.

Ngesrep Village is chosen as sample because it's one of the villages in the district Banyumanik Semarang with a relatively large number of adolescents, located in urban areas, and is the location of one of the largest university in Central Java.

Method

This research was descriptive analytic study with cross sectional design with independent variables include the characteristics of adolescents, knowledge consists of knowledge about the reproductive organs, fertility, pregnancy, sexually transmitted infection and HIV/AIDS. Variable attitude toward sexuality was measured using a standard scale Reiss, and sexual behavior using a standard courtship behavior KNPI (kissing, necking, petting and intercourse). The dependent variable is the needs of reproductive health information services which are desired by adolescent, including information contents and information providers as well as the place of delivery of information.

The population in this study were adolescents aged 15-18 years who were recorded in the Family Card (KK) in the Ngesrep Village in 2014 with the inclusion criteria: adolescent willing to become respondents by signing the informed consent. There were 10 adolescents who were not willing to become respondents due to not getting permission from their parents, so that the total sample size would be 237 adolescents. Data was collected through questionnaires distributed and filled by the respondent assisted by the enumerators. If there was something that was not understood when filling out the questionnaire, the respondent may request an explanation to the enumerators.

Results and Discussion

The results showed that the percentage of male and female respondents were almost equal, 46.8% and 53.2%, respectively, and mostly were aged less than 17 years (81.9%). Although the majority of respondents were high school students, however there were still 1.3% of respondents who did not graduated from elementary school. While respondents with a higher education level (diploma and undergraduate degree) was less than 5%. The level of knowledge that was measured in this study consists of knowledge about reproductive health, sexually transmitted infections (STIs), and HIV/AIDS. The results showed that the
proportion level of knowledge of these three subjects had almost the same presentation, which was more than half of the respondents have good knowledge about reproductive health, sexually transmitted infections and HIV/AIDS, 57.4%; 51.15; 50.2%, respectively. Respondents still had very poor understanding of HIV/AIDS, with 49.8% still had misconceptions about HIV/AIDS. (Table 1)

From some questions of knowledge about reproductive health, STIs and HIV/AIDS, the majority of respondents likely had not understand well yet about the reproductive health, for example, 89.8% of respondents did not know that sexual intercourse before marriage and multiple partner are risk factors of transmitting STIs and HIV. A total of 72.2% respondents had confidence that STIs could be cured by a shaman/witchdoctor. Likewise, lack of understanding about HIV transmission can occur through a handshake and mosquito bites (71.1% and 68.8%). When compared between both sexes, male respondents had less knowledge about reproductive health, while the female respondents had less knowledge about STIs and HIV/AIDS. Knowledge of the signs of puberty both sexes, such as menstruation, wet dreams, and voice changes in men had been well understood by almost all respondents (96.2%; 96.2% ; and 94.9%, respectively). In addition, they also understood about HIV transmission can occur through sexual intercourse without using a condom, sharing needles practice, and blood transfusion contaminated with HIV virus (95.8%; 89.9%; and 88.2%). Nevertheless, there was some information that many had not understood including the process of pregnancy and the anatomy of the female reproductive organs, the vulva and the uterus (67.1% and 66.2%; 74.7%) (Table 1).

Sexuality attitudes were almost had the same percentage among those being permissive
and not permissive, although respondents who did not permissive slightly more than those with permissive attitudes, 51.1% and 48.9%, respectively. While, the sexual behavior of respondents indicated that 13% of respondents perform risky sexual behavior. Although, the percentage seem not much, but this needs to be watched, because the number of adolescent who had risky sexual behavior is increasing every year. (Table 1)

Several previous studies have shown that knowledge of adolescents about reproductive health and sexuality are still low. Adolescent has not been really understood the signs of puberty, the fertile period, and the risk of sexual intercourse such as abortion, STIs, and HIV/AIDS. Likewise, the understanding of sexual relationships, the majority of adolescent believe that if it is only done once it will not cause pregnancy. This is causing a lot of adolescents dare to have sex before marriage, especially with his/her partner without contraception (Trisnawati, 2010a). In addition contraception is taboo topic for unmarried adolescents, despite being sexually active. In fact, contraceptive services for adolescents are not available to those who unmarried.

Providing information that sensitive to both girls and boys students together will make students’ understanding of sexuality and reproductive health as well as its risks to be not optimal, in addition they’ll feel embarrassed to ask more detailed information, especially for female students, also materials delivered become less daring to be discussed in detail by both gender, that actually they desperately need a clearer understanding (Shaluhiyah, 2006).

It was known from the results of respondents’ attitudes toward sexuality that more than half of the respondents were not permissive toward sexuality (51.1%) (Table 1). Respondents permissive attitude shown by the statement that adolescents feel taboo to talk about the characteristics of puberty with the opposite sex (49.4%), kissing the partner was not something normal and should not be done by adolescent (62.5%), and sexual intercourse with the opposite sex before marriage was not allowed (93.3%). Although most respondents were not permissive, there was the attitude of the respondents were shown tend to be permissive toward sexuality, including the respondents agreed that masturbation was normal (66.3%) and 37.5% of adolescent agreed when dating is normal to kissing and necking, but should not doing intercourse. Respondents with a permissive attitude toward sexuality mostly aged below 17 years old, male, had less knowledge about STIs and HIV/AIDS, and at groups of adolescents who had risky sexual behavior.

As many as 13% of respondents had risky sexual behavior such as doing kissing, necking and petting while dating. Kissing and necking while dating was done mostly by male respondents than female (37.8% and 13.5%) and (26.1% and 1.6%), while petting and intercourse was only done by the male respondents. Respondents with risky sexual behavior mostly aged less than or equal to 17 years, male, had permissive attitudes toward sexuality, had good knowledge of reproductive health, but less knowledge about STIs and HIV/AIDS.

Sexual behavior before marriage is considered common and acceptable among adolescents. Results of research by Peter mentioned that the trend was due to the easy access to entertainment facilities such as discotheques, night-clubs and pornography through magazines, videos, movies, books, social media and the internet. The results of some previous studies showed an increase in adolescents who had sexual intercourse while dating. In 2006, 18% of teenage boys and 5% of teenage girls have had sexual intercourse before marriage and increase in 2015 as many as 54.5% of adolescents have risky sexual behavior. Adolescents also more permissive toward sexuality. Research carried out by a relatively Azinar said as many as 80.1% of adolescents permissive toward sexuality and 68.2% had close friends that had risky sexual behavior (Azinar, 2013; Peter, 2008; Suryoputro, 2006).

Adolescent reproductive health information service is the provision of health information for adolescents aimed to provide knowledge and health education. While the criteria for adolescent friendly health services is health care that is accessible, acceptable, appropriate and fair for adolescents that include comfortable environment, friendly officers,
and information delivery mechanism that is in accordance with youth culture such as the time and place that allows adolescent to access the service, and confidentiality (Denno, 2015; Godia PM, 2014).

Currently, reproductive health services for adolescents provided by the government are still lack when compared to the number of adolescents. Research in Semarang showed that community health centers provide reproductive health care information only 30% in accordance with the expectations of adolescents, whereas more than 75% adolescents actually need a health care. On one side, adolescents also have been unable to optimally utilize the services, as more young people who come to the clinic to check themselves because of illness, not to do counseling or seeking information about reproductive health and sexuality.

The number of adolescents who behave permissive toward sexuality impact on sexual practices with risk being pregnant and got STIs such as sex with multiple partners without using condoms. The ease of access to the media in particular that feature pornography and lack of information about healthy and safe sexual behavior practice, become a loophole for adolescents to practice unsafe sex such as not using condoms that can lead to unwanted pregnancies and facilitate the transmission of STIs and HIV. Although, adolescents increasingly being liberal in sexuality, but in the majority of Indonesian society, sexual behavior before marriage is still a disgrace and violate the religion laws and norms of society. If a woman adolescent has had sexual intercourse and pregnant, there are two possibilities as consequences, that are to marry this woman with a man who had impregnated her to cover the disgrace, or commits abortion. Both of these options have risks, when choosing to get married, adolescents have not ready and matured yet, physically, and mentally. Likewise, in terms of age have not met the criteria according to marriage law. Meanwhile, when choosing to commit abortion, can bring health problems, such as prolonged bleeding, psychological side effects, and incomplete abortion to cause death (Peter, 2008; Situmorang, 2003; Sohn, 2012)

Some of the variables associated with risky sexual behavior are sex, knowledge STIs, attitudes toward sexuality, had boyfriend/girlfriend, peers attitudes, and public attitudes. More than a quarter of male respondents never had done risky sexual behavior. This is about three times more than the number of those women who performed sexual behavior. Knowledge about STIs was one of the variables that also associated with risky sexual behavior of adolescents in Ngesrep Village. Adolescents who had ever done sexual intercourse were less than 20%, while adolescents who had sexual intercourse and had less knowledge were more numerous (32.8%). Comparison of adolescent knowledge about STIs who haven't had sexual intercourse was 82.6% and 67.2%, more among those who had good knowledge. Respondents attitude toward sexuality that had sexual behaviors tend to be permissive, almost five times the number of those with risky sexual behavior that's not had permissive attitude. Opposite results was seen where adolescents who had no risky sexual behavior almost doubled compared with adolescents who had a permissive attitude toward sexuality.

Most adolescents are not willing to talk about the sexuality to his/her parents and prefer to ignore it. On the other hand, the fact that 46% of junior high school teenagers and 64% of senior high school teenagers never engage in risky sexual activity and 9 million adolescents worldwide had sexual intercourse. Results of previous studies also showed that respondents who perform risky behavior sexual is greater in male compared with girls and more adolescents female do not performed risky sexual behavior compared to male. Sexual intercourse committed by adolescents is to look for his/her identity and as a statement or recognition of the relationship between the two of them. In the norm aspect, female are more hiding or denying her sexual behavior that violates the norms than male because it would be stigmatized by society. While subnorm of male, demanding more aggressive and more permissive in sexual behavior (Okigbo, 2015; Sychareun, 2013).

The adolescent attitude toward sexuality is determined by parental supervision toward their children. In Western countries, parents make too much oversight and keeping a distance with a child can cause the child to
have a negative attitude towards sexuality. Conversely, if the parents have a moderate attitude towards supervision to children, it may result the child have a positive attitude towards sexuality. This is because children prefer to be invited to dialogue, discuss and kept out of instructions or orders and prohibitions that will cause the child trying to break. Contrary, in Asian countries, teenagers embracing liberal communication with parents tend to have sexual intercourse before marriage than those who given prohibitions, threats, and the rules from their parents (Trisnawati, 2010b; Wong, 2012).

A study in 2001 showed 5.4% adolescents aged 15-19 years old of the total 4,500 respondents have had sexual intercourse. Rapid media growth, social and economic development, as well as technology and modernization also triggers a change of attitude of adolescent sexuality in developing countries. Changes in attitude toward sexuality can lead to adolescent to have sex (Wong, 2012).

One prevention of unsafe sexual behavior in adolescents is to utilize as much as possible friendly health services for adolescents. To make the needed health services in line with expectations, is important to know what information is needed such as expected specific materials, who deliver the material, and where the material is given (Sohn, 2012; Widyastari, 2015). Material needs based on age, sex, and risky sexual behavior; in Table 2, it appeared that most respondents expect a material about the function of the reproductive organs, HIV/AIDS and STIs, as well as puberty and fertility. Another issue on adolescent reproductive health is a lack of awareness about the importance of reproductive health. Most adolescents do not go to a health services as well as a reproductive health services unless they feel ill and the problem had disturbed their daily activities. This is because the costs to be incurred when they come to the health service or to reproductive health services. In addition, the reluctance of teenagers to come to the health service is also due to fear if someone else knows their secrets related to deviant sexual behavior. Likewise, long waiting times in the health service because of the large number of visitor cause adolescents do not access the health services. Gender differences between adolescents and officers who perform reproductive health examination is also one of the causes they are reluctant to come to the health service. If the health worker is had different gender with adolescents, they feel less comfortable when talking about reproductive health, especially when it comes to sexuality (Atuyambe, 2015).

Research conducted in several countries mentioned that the introduction of reproductive system problems, processes and functions of reproductive organs as well as HIV/AIDS and STIs are most demanded by adolescents. Research conducted in Malaysia said that it is important for adolescents to understand the function of the reproductive organs, because they will enter puberty when there will be physical and reproductive organs changes. This is important given before they reached puberty. While the matter of HIV/AIDS and STIs expected to be given by those who actually have knowledge about HIV/AIDS and STIs. Although the information has been expressed through various media, but the information given more likely to cause fear, even led to stigma and discrimination against the patients (Atuyambe, 2015; Sohn, 2012; Dessie, 2015).

Health workers are giving the desired information and are believed most respondents to reproductive health problems. One key to the success of an information understood by the target because the information given by the credible, reliable, and can be delivered in accordance with the conditions of the target. Providers of reproductive health information must be someone who is trusted by adolescents and understand the issues, well mastered the material, and has attractive delivery and preferred by adolescents. In general, adolescents view health workers as someone who has the ability to provide information about health with good, accurate and reliable. Health workers are considered by adolescents master all the information and issues relating to health which includes sexuality and reproductive health. These factors cause adolescents have a tendency open to discussions about reproductive health and sexuality with health workers compared to others (J.D. Klein, 2002).

Although health workers are the main
options in informing adolescents about reproductive health, not a few adolescents who choose and want the parents as a discussion partner. Many parents still feel taboo to discuss the issue and feel unable to discuss with his teenage son/daughter and hope their child will see themselves the way they did in the past. Parents conservative thought and feelings taboo to discuss it causes the barrier of good communication between parents and children. Teenagers who have an open communication with parents, especially on reproductive health have a tendency not have sexual relations before marriage. In addition, the limitations of parental knowledge about reproductive health and sexuality also to be a barrier for parents to provide information about sexuality to their children (Dessie, 2015; Keijsers 2010; Meilani, 2014; Sohn, 2012)

Finally, most adolescents are still reluctant to discuss sexuality with their parents. Results of research conducted by Widyastari, et al showed 54.2% of adolescents who do not get enough information about reproductive health and sexuality are reluctant to discuss sexuality with their parents. The results showed adolescents with age less than or equal to 17 years, less to discuss sexuality and reproductive health with their parents than adolescents over the age of 17 years (28.9% and 37.2%, respectively). These results are consistent with research conducted in Wollega, Ethiopia, where parents tend to discussing with older teenagers/young adults, because they have the possibility of a more experienced in sexuality than younger one. Communication between the teenagers with parents should be done by focusing on the quality of discussion, and openness of adolescents to parents become key to the good communication and the ability of parents in conveying information sexuality in accordance with the circumstances of his/her youth (Dessie, 2015; Widyastari, 2015).

Several previous studies support the results of this study, in which more young women discuss reproductive health with parents, especially mothers as compared to boys (34.9% and 25.2%) (Table 2). This is due to more young women getting negative impacts related to sexual behavior and reproductive health, so that parents, especially mothers find it more important to talk about sexuality and reproductive health of young women than young men (Dessie, 2015).

The school is one great place to provide information on adolescents related to reproduction health and sexuality, and a very appropriate place for foster adolescents that may prevent the occurrence of sexual behavior before marriage. Research conducted in the United States that adolescents who drop out of school more easily perform sexual intercourse before marriage than those who graduated. This is because in school adolescents received reproductive health and sexuality education, either directly from the schools, the health care workers, as well as from NGOs. Some schools also have had a curriculum on reproductive health and sexuality whose numbers increase every year. Adolescents are also happy to do

| Variable                  | Category       | Sexual behavior | p value |
|---------------------------|----------------|-----------------|---------|
| Sex                       | Male           | 42 (37.8%)      | 0.0001  |
|                           | Female         | 17 (12.3%)      |         |
| Knowledge about STIs      | Good           | 33 (17.4%)      | 0.010   |
|                           | Less           | 38 (32.8%)      |         |
| Attitude toward sexuality | Not Permissive | 10 (8.3%)       | 0.0001  |
|                           | Permissive     | 49 (42.25%)     |         |

Table 2. Analysis of Relationship Between Variable Sex, Knowledge about STIs, Attitude Toward Sexuality, Peers Attitude with Sexual Behavior

Source: Primary Data
discuss related to matters of a personal nature, such as changes in puberty and information about sexuality through counseling (Kirby, 2002). Another case in Indonesia, reproductive health and sexuality haven't entered yet in both junior high school and senior high school curriculum, so that the uniformity of the material and the ability of providers depending on respective schools. Some schools incorporate in extracurricular activities, while in some favorite private schools is already integrated in the existing curriculum (Pakasi, 2013).

**Conclusion**

All adolescents stated that they need the services of reproductive health information. Preferably reproductive health information are part of the curriculum with subjects that stand alone or integrated with the biology subject, so that the information obtained is more detailed and comprehensive. If it does not allow entry into the curriculum, the provision of detailed information can be provided and are required to follow the students through extracurricular activities such as seminars, scout or counseling. Adolescents who have unsafe sexual behavior in addition to requiring information on reproductive organs and puberty, they also wanted on material about STIs and HIV/AIDS. According to them, the health workers should able to provide more in-depth information about reproductive health, and STIs to them, so that they understand the relation to risky sexual

| No | Explanation                              | Age ≤17 y.o | Age >17 y.o | Sex Male | Sex Female | Sexual behavior At risk | Sexual behavior No risk |
|----|------------------------------------------|-------------|-------------|---------|-----------|------------------------|-------------------------|
| 1  | Reproduction organ function              | 46,9%       | 46,5%       | 50,5%   | 43,7%     | 58,1%                  | 45,1%                   |
| 2  | HIV/AIDS and STIs                        | 25,7%       | 22,2%       | 22,9%   | 27%       | 17,5%                  | 26,2%                   |
| 3  | Puberty and fertile period               | 15%         | 30,5%       | 17,3%   | 18,2%     | 18,4%                  | 17,7%                   |
| 4  | Pregnancy and contraception              | 6,1%        | 4,6%        | 6,4%    | 5,4%      | 7,8%                   | 5,6%                    |
| 5  | Drugs and smoking                        | 3,6%        | 2,3%        | 3,6%    | 3,2%      | 6,5%                   | 2,9%                    |
| 6  | Sexual behavior                          | 2,6%        | 0%          | 2,7%    | 1,6%      | 0%                     | 2,4%                    |
|    | Total                                    | 100%        | 100%        | 100%    | 100%      | 100%                   | 100%                    |

| No | Explanation                             | Age ≤17 y.o | Age >17 y.o | Sex Male | Sex Female | Sexual behavior At risk | Sexual behavior No risk |
|----|-----------------------------------------|-------------|-------------|---------|-----------|------------------------|-------------------------|
| 1  | Psychologist/health worker               | 36,6%       | 37,2%       | 32,4%   | 40,4%     | 29,1%                  | 37,8%                   |
| 2  | Parents                                 | 31,5%       | 37,2%       | 25,2%   | 34,4%     | 29%                    | 30,6%                   |
| 3  | Media                                   | 9,8%        | 9,8%        | 9,8%    | 9,8%      | 9,8%                   | 9,8%                    |
| 4  | Teachers                                | 8,8%        | 4,7%        | 10,8%   | 5,6%      | 6,5%                   | 8,3%                    |
| 5  | Peers                                   | 10,3%       | 11,6%       | 12,6%   | 8,7%      | 19,3%                  | 8,3%                    |
| 6  | Public figure                           | 3,1%        | 0%          | 4,5%    | 0,8%      | 6,4%                   | 1,9%                    |
|    | Total                                   | 100%        | 100%        | 100%    | 100%      | 100%                   | 100%                    |

| No | Explanation                             | Age ≤17 y.o | Age >17 y.o | Sex Male | Sex Female | Sexual behavior At risk | Sexual behavior No risk |
|----|-----------------------------------------|-------------|-------------|---------|-----------|------------------------|-------------------------|
| 1  | At school                               | 53,1%       | 53,7%       | 53,5%   | 53%       | 58,7%                  | 52,4%                   |
| 2  | At seminar                              | 12,9%       | 12,9%       | 12,9%   | 12,9%     | 12,9%                  | 12,9%                   |
| 3  | At counseling room                      | 16%         | 9,3%        | 9%      | 11,9%     | 12,9%                  | 10,2%                   |
| 4  | At mall                                 | 15,9%       | 26,3%       | 17,6%   | 18%       | 23,8%                  | 16,9%                   |
| 5  | At recitation                           | 2,1%        | 0%          | 2,7%    | 0,8%      | 3,2%                   | 1,5%                    |
|    | Total                                   | 100%        | 100%        | 100%    | 100%      | 100%                   | 100%                    |

Source: Primary Data

Table 3. Distribution based on reproductive health care needs expected by respondents
behavior. They also expect and need their parents to be able to discuss with them about issues of reproductive health and sexuality and the parents become the main information source in addition to the school. The level of knowledge about reproductive health, STIs, and HIV/AIDS, nearly balanced between good and less, both in male and female. Nearly half have a permissive attitude toward sexuality. Although most do not behave in risky sex behavior, but a small part (13%) have had sex at risk, all of which were male.

It is advised to improve reproductive health information service activities more in-depth and detailed through school health unit (UKS) activities and reactivate PKPR in community health center that implemented by health workers. It is needed to increase parenting skills in discussing issues of sexuality and adolescent reproductive health through workshops and training and activation of family teenage mentoring in village and subdistrict level.

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