Differences of medical evidence overview of sexual violence between girl and adult women examined at sanglah central public hospital

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ABSTRACT

Background: There are differences of genital structure between girls and adult women in terms of anatomy and histology which it may affect medical evidence which is obtained during the verification. Objective: This study aimed at determining the differences of medical evidence of sexual violence that includes promiscuity signs and violence signs among victims of sexual violence who were examined at Sanglah Central Public Hospital. Methods: Cross sectional studies were conducted of 56 girls (<18 years) and 56 adult women (≥ 18 years) to collect data from visum et repertum (VER) 2011-2015 by consecutive sampling. Sexual violence cases were taken in this studies based on the request letters of VER from police investigators. Medical evidence variables in this study consisted of promiscuity sign (divided into genital wounds findings and positive sperm findings) and violence signs. Results: The finding of this study indicated that promiscuity sign in the form of genital wounds in girls were lower than adult women (44.6% vs 85.7%; P <0.05). Conversely, there was no significant difference of the finding associated with sperm positive findings among girls and women (7.1% vs 17.9%; P > 0.05). Violence signs in women were more than girls (39.3% vs 17.9%; P <0.05). Conclusion: It could be concluded, from 2 types of medical evidences of sexual violence found significant differences associated with promiscuity sign in the form genital wounds and violence signs among girls and adult women.

Keywords: Sexual violence medical evidence, sexual violence, girls, adult women.

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INTRODUCTION

Sexual violence on women may occur at all age levels. Research in Punjab by Arif et al (2014) indicated that most sexual violence attacking the age group of 11-20 years (60.8%), followed by the 21-30 age group (26.3%) and 31-40 years (8.1%).¹ The finding of study above indicated that women at any age levels remain unsafe and potentially become the victim of sexual violence cases, both girls and adult women.

Most of the victims of sexual violence (78%) did not report to the police office.² While the victims of sexual violence who reported to the police, the police would attempt to find scientific evidence that served as medical evidence in order to find the perpetrators and uncover the truth against sexual violence.

The involvement of the doctor’s role as a medical professional who understands the structure of the human body plays an important role in providing assistance to the police to find medical evidence which includes promiscuity sign and violence signs.³ Related research on promiscuity signs and violence on girls and adult women were conducted by several researchers. Maring et al in Manipur (2013) investigated 114 sexual violence victims aged <18 years in which 75.7% of them found to have promiscuity signs in the form of genital wounds and only 14.8% experienced physical violence from committers.⁴ Similar study investigating 99 women victims of violence undertaken by Demisew et al (2014) confirmed that promiscuity signs and violence signs found respectively 80.4% and 27.3%.⁵ The findings of the above mentioned studies show that research analysing the difference overview of medical evidence of sexual violence among girls and women that focus on inferential analysis is still limited, especially in Bali. Mostly researches only focus on
the proportions of medical evidence components of sexual abuse on women in certain age groups and they do not separate the age groups into girls and adult women.

There are differences of genital structure between girls and women in anatomy and histology. In new-borns, the hymen looks vascular and its epithelium is thickened. Further in prepuberty women, low estrogen levels cause the hymen tissue becomes thin and delicate easily. By the time when they are about to reach puberty, the hymen is getting thicker and folded out. As the age goes by, there will be an increase on the elasticity of women’s circle hymen, so the hymen of adult women who are sexually active rarely show trauma.6

Based on those descriptions, the related research on difference of medical evidence of sexual violence by age group of children and women is important to be undertaken, because there are differences on maturity of anatomical structures that arrange the victim’s genital which would affect the findings of the medical evidence obtained from the two group categories. The purpose of this study is to investigate the different overview of medical evidence of sexual violence that includes promiscuity sign and violence signs on sexual violence victims which were examined at Sanglah Central Public Hospital.

METHODS
This research was an analytic study with cross sectional design. Research was conducted at Sanglah Hospital between August until October 2016. This study used secondary data from visum et repertum of sexual violence cases and had fulfilled the ethical expediency from ethical commision number 515/UN.14.2/Litbang/2016. Sexual violence cases were taken in this study based on the request letter of visum et repertum from police investigators. Samples were taken with consecutive sampling technique which was all subjects whose data contained in VER that fulfill the inclusion criteria were taken until the number of subjects met.

The inclusion criteria were the victims of sexual violence survivors which consists of girls aged <18 years old and women aged ≥18 years. The exclusion criteria were the victims whose age was not known and was not listed on the visum et repertum. The number of samples in this study was 56 girls and 56 adult women.

The dependent variable in this study was overview of medical evidence of sexual violence that includes promiscuity signs (divided into genital wounds and positive sperm findings) and violence signs. The independent variables were girls and adult women. The collected data were processed using SPSS 21 then analyzed in univariate and bivariate using Chi Square test to determine the differences between the medical evidence of sexual violence of girls and women.

RESULT
Genital wounds were lower in girls than in adult women and the difference was significant (44.6% vs 85.7%; P <0.05) (Table 1.). Similar arguments were also found by Sommer (2007) in quoting the research of Goodyear-Smith which was based on the findings of conducted research, genital wounds in girls were lower (19.5%) compared to women (40%). 7,8 The different result was reported by Baker and Sommers (2008) that involved 234 respondents of women aged between 14 and 29 years which there was no significant relationship between ages and the existence of genital wounds in sexual violence cases.9

The positive sperm finding among girls and women in this study was not different significantly (7.1% vs 17.9%; P> 0.05) (Table 1.). The finding of this study also corresponds to the study conducted by Sharma et al (2008) which there was no significance proportion found over the positive sperm test between the victim girls aged 1-17 years and women aged ≥18 years which accounts for 11.7% and 16% each.10

The Chi Square test results related to differences of violence sign found more in adult women than in girls and statistically has significant value (39.3% vs 17.9%; P <0.05) (Table 1.). The violence sign research in victims of sexual violence were conducted by several researchers and got various findings. Pacharabumrug et al (2014) found 124 sexual violence victims aged 1-12 years, in which 8.1% of them experienced physical violence on body.11 Geidam et al (2010) also found in 205 female students aged of 20-24 years who experienced sexual violence, whereas 35.5% of them experience physical violence.12

Table 1. Differences in Medical Evidence of Sexual Violence Among Girls and Adult Women

<table>
<thead>
<tr>
<th>Medical Evidence</th>
<th>AP (56)</th>
<th>PD (56)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promiscuity sign*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genitalia wound</td>
<td>44.6%</td>
<td>85.7%</td>
<td>0.000</td>
</tr>
<tr>
<td>Sperm (+) Findings</td>
<td>7.1%</td>
<td>17.9%</td>
<td>0.151</td>
</tr>
<tr>
<td>Violence sign*</td>
<td>17.9%</td>
<td>39.3%</td>
<td>0.021</td>
</tr>
</tbody>
</table>

G : Girl
AW : Adult Woman
* : P value of <0.05 (statistically has significant value)
DISCUSSION
This study found that the genital wounds in girls were lower than the adult women and statistically has significant value (44.6% vs 85.7%; P < 0.05). Theoretically, genital wounds are more likely to occur in property victims of sexual violence compared with post-puberty. This is due to the low elasticity of the hymen on pre puberty victim of sexual violence and there was a divergence between the size of the hymen in pre puberty victims of sexual violence with the size of the genital penetrators. In addition, the hymen tissue in pre puberty women is thin and delicate easily, so the hymen can rupture easily. The different finding of this study with the basic theory could have been due to different penetration object used by the perpetrators. According to Wyatt (2011) and Herman et al (2014), an object used by perpetrators of sexual violence in penetrating the vagina of the victim (finger, penis, and other objects) affects the wound appearance on genital. Other factors that also affect the wound appearance on the victim’s genital including victim’s age, type of sexual activity, history of prior sexual activity, penetration power, size difference between the victim’s vagina and penetration object of the penetrator.

The delayed time of victim undertaking immediate investigation to hospital that roughly between weeks and months may also contribute to the slow wounds recovery that resulting the genital wounds on the victim did not appear during examination. This study also found that the proportion of examination delay time to medical centre in girls is higher than adult women and the different was not significant (69.6% vs 50%, P > 0.05). World Health Organization (2009) added that the genital wounds are rarely found in children since victims of sexual violence in children rarely involved physical injury on genital.

There was no significant difference on positive sperm finding between girls and adult women (7.1% vs 17.9%; P > 0.05). It might be caused by various factors, one of the factors is delay time for both groups of concerned victims to have them examined in the medical centre. In this study, both girls and women are late to get them examined at the Sanglah Central Public Hospital (69.6% vs 50%, P > 0.05). Delay time in having examination to medical centre will affect the positive sperm findings since sperm only survives for a certain time period.

The loss of tracing evidence attaching to the victims’s skin and clothing also affected positive sperm findings on victims of sexual violence. This is due to the victims of sexual violence tended to take a bath, wash and change their clothes that tainted by the perpetrator’s ejaculated fluid. Other causes of low number sperm findings on sexual violence victims include azoospermia perpetrator, post vasectomy, condom user, penetration without ejaculation and inadequate sperm specimen collection techniques.

Violence signs found more in women than girls and statistically has significant value (39.3% vs 17.9%; P < 0.05). Researchers argue that the high findings of violence sign on women compared to girls could be due to maturity in giving consent. Medico legally, the ≥18 years age group is the age group that can give consent to sexual activity. With regard to the statement, it seems that the age group <18 years is immature age group to give consent and understand sexual violence; as a result, children victims tend to reject the sexual violence and not against the perpetrator. Thus, the violence sign on girls were lower.

CONCLUSION
From 2 types of medical evidences of sexual violence found significant differences associated with promiscuity sign in the form genital wounds and violence signs among girls and adult women.

SUGGESTION
Further research requires to be conducted with larger sample of other variables to find out the reasons underlying the differences in medical evidence of sexual violence between girls and adult women thus minimize bias in the study.

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