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An Overview of Anti-Rape Products: Safeguarding Women and Providing Confidence and Safety

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ABSTRACT: When somebody has been the victim of sexual violence, they have been robbed of their own right to their own bodies. Rape is a violation of human rights. Sexuality has absolutely nothing to do with it; it doesn't have anything to do with sex. It is about power and control, as well as it is about violence. In this case, it is about shame, humiliation, and fear. Sexual gratification is not involved anywhere in between. Estimates from the research indicate that between 75 percent to 95 percent of rape offenses are never reported to the police. Fear of not being believed, not wishing to get their assailant who is frequently familiar to them into trouble, and a feeling that they can or ought to have avoided the attack means only a small percentage of rape cases are being reported. Violence towards women and girls is not restricted to a specific culture, region, or country, or to specific groups of women within a society. Persistent discrimination against women and girls is at the root of violence against women. According to the data that is available at the time of this research being put together, up to 70 percent of women are experiencing violence during their lifetime. According to World Bank data, women between the ages 15-44 suffer a greater risk of becoming the victims of rape and domestic violence than they risk cancer, war, car accidents, and malaria, put together. All over the world, one in five women will experience rape during their lifetime. Rape is about as wrong as it can get. The only one responsible for a rape is considered to be the rapist and that these products do not solve the underlying problem that rape exists in our world. The threat of rape for women and girls can be reduced by simply raising awareness and educating, as well as bringing the rapists to justice. In the meantime, as long as sexual predators continue to populate our world. In this paper, we would like to highlight products to women and girls that will provide better protection against some attempted rapes while at the same time the work of changing society's rape culture goes forward. As a matter of fact, the anti-rape product will protect women and provide them some form of freedom that they may have been lacking.

KEYWORDS: Anti-rape products, Rape-axe, Acquaintance rape, Sexual assault, Anti-rape Underwear (AR-Wear), Rape Preventive belt, Sexual Violence, Rape, Human Rights.

I. INTRODUCTION

Almost every day, we read about rape in the newspapers. As a result, people become anxious and wonder why no one does anything about it. In recent years, media have begun to focus more attention on this issue, while more and more women are speaking out about it. It is believed that society is finally starting to act against violence by reacting to it. However, it continues to be the case that many women choose not to report abuse. In addition to being ashamed, they are afraid of not being heard, or of being exposed to further violence. In a trial, it is often a matter of words against words, making it difficult for a woman to win. Potential lawsuits often place blame on the woman, focus on whether or not she provoked the attack. Had she consumed too much alcohol? Did she wear provocative clothing? Does she have a history of multiple sexual partners? Is there anything in her words that led him on? What was her first reaction to the situation? Generally, the penalty for rape is very low. In the majority of cases, the accused is not convicted. The problem lies worse than it is thought. What really matters is to understand why some men are able to commit such heinous acts. It's not a question that can be answered in a day. It will take some time. By thinking about the problem and how to solve it here and now, the issue can be resolved. Hopefully, our grandchildren will complete what we have begun and stop violent behavior for good [19,20]. These products have been developed so that women and girls might have more strength to control the outcome of a sexual violation. All rape protection products intended to provide some peace of mind in situations that cause feelings of apprehension, i) When going on a blind date, ii) Being alone in the house, iii) Going for a Walk or Run in the evening, iv) Going to School, Colleges, v) Going to Clubs, vi) Traveling to unfamiliar countries, places, vii). And any other activity that could make one worried about the possibility of an attack. Though it is believed that self-defences skills can assist to resist an attempted attack, they could not be used in all circumstances, and they will not always be effective. Additional tools of self-defence available at the moment are also not efficient in many common settings of sexual assault. Products like pepper spray, tear gas, stun guns, etc. demand that the potential victim be extremely alert and could be taken away to be used against her. Several studies have

examined the statistics of resisting assault, whether by forceful or non-forceful means. Resistance increases the possibility of preventing a completed rape without making a victim more likely to be physically injured. The study concludes that an Anti-rape product of Condom, Garment, or Belt that establishes an effective barrier layer can enable women and girls to passively repel an assailant, in addition to any other type of resistance they might be able to be carried out at the time of an assault [19,20].

II. OBJECTIVES OF THE STUDY

Every woman in the world faces the threat of rape, no matter where she lives, whether she lives in an affluent suburb or a neighbourhood full of criminals. Although sexual assault can be committed by strangers, it is usually committed by individuals whom the victim knows well. A broad range of sexually violent actions may take place under different circumstances and environments. Consequently, there are numerous situations in which they may consider better protect themselves. During the recent period, technological advances, as well as technology innovation, play an important role. An anti-rape product is invented for the purpose of preventing or deterring rape. The main aim of the research paper is to discuss the anti-rape product and how it is safeguarding women and children from rapists as well as the expected advantages of these Anti-rape products. This research aims to find out the information communicated in preliminary media and publication coverage of Anti Rape products. In this paper, we would like to offer awareness about protection products for women, teenagers, and children that will provide better protection against some attempted rape.

III. THE DEFINITION OF RAPE

Rape is a form of sexual assault in which a man, a woman, or a child is forced to have sex vaginally, anally, or orally against their will or without their consent [1]. Rape is usually committed by means of physical force, but it can also occur when someone uses psychological manipulation or threats of violence to engage in sexual activity [2]. It is illegal and wrong to rape anyone. The victim is never to blame for the actions of the perpetrator [3].

IV. THE DEFINITION OF SEXUAL ASSAULT

A person who intentionally grabs or touches another in a sexual way, or who is forced to kiss another or do something else sexual against their will is guilty of sexual assault. Including sexually touching anyone's body, regardless of whether they are wearing clothing. It is possible for anyone to commit sexual assault, and both men and women are capable of it [4,5,6].

V. A DEFINITION OF CONSENT

Even in a relationship or marriage, consent cannot be assumed. Rape is rape regardless of how the person dressed, or how they behaved at the time. If they are impaired by alcohol or drugs, do not understand what is happening, or are sleeping, they may be unable to consent. Consent cannot be assumed if they are incapable of giving it [4]. Sexual intimacy occurs when a person freely and voluntarily consents to it without coercion, intimidation, or threat. It is called a free agreement. Including kissing and caressing in non-consensual sexual activity is illegal. The individual must also give consent to every sexual activity no matter what their relationship status is. Consent cannot be taken for granted. A person involved in sexual intimacy has the right to say no and can decide at any point that they do not want to continue no matter how far things go. When that happens, they are no longer consenting, and the sexual activity must end [11].

VI. WHAT ROLE DOES CONSENT PLAY IN RAPE

It is illegal for someone who is drunk or high to consent to sexual interactions with another person. The law also considers people incapable of consenting to sex if they are, i) Physically or mentally disabled ii) Under the age of 18 iii) A minor who is younger than the perpetrator by a certain age. Consent is also a must even if you're married to, dating, or in a relationship with someone. It is illegal to force them to engage in sexual relations with someone even if they have voluntarily engaged in sex with them in the past. They commit a crime if they do so [9,10].

VII. THE DEFINITION OF ACQUAINTANCE RAPE

The act of acquaintance rape occurs when a person knows, or trusts forces them into sexual activity. Rapists could be friends, family members, neighbours, or co-workers. Acquaintance rape can occur on a first date, at a party, or after they have been dating for a while. This can happen in any relationship, including i) Friends, classmates, or co-workers ii) Boyfriends and girlfriends iii) Internet friends and contacts iv) Teachers and students v) Coaches and athletes vi) Religious leaders and parishioners vii) Doctors and patients. Acquaintance rape is the most common kind of sexual assault. More than 80 percent of rapes occur between acquaintances, and 50 percent occur during dates [1,8].

VIII. THE DEFINITION OF DRUG FACILITATED SEXUAL ASSAULT

Most often, this happens when a person is with familiar people at a party, club, or social event and does not think they have any reason to be afraid. Someone secretly drops a drug into the drink, such as roofies or ecstasy. It is odorless when it dissolves. Colorless or leaving behind a bluish-colored residue, it may also be tasteless. The drug begins to work as soon as the drink is consumed. Drowsiness, dizziness, confusion, loss of coordination, slurred speech, loss of inhibition, impaired judgment, and reduced awareness are possible symptoms. Incapable of escaping, resisting, or even calling for help. Drugs like these often cause amnesia, and one has no memory of what happened and who assaulted them. When drugs facilitate sexual assaults, Roofies are not the only drugs used. As a matter of fact, alcohol is the most commonly used drug to facilitate sexual assault. Like roofies, alcohol impairs judgment, lowers inhibitions, and affects consciousness. Having sex when under the influence of alcohol is illegal in the eyes of the law [1,7].

IX. RAPE IN CONTEXT

The following are some other terms you might hear used in relation to rape, and what they mean.

Statutory rape	'Statutory rape' is the term that's sometimes used to describe the rape of children under the age of consent. An underage child cannot legally consent to any kind of sexual activity.
Date rape	In terms of rape, 'date rape' is not a specific offence, but it refers to rape when the victim and perpetrator are known to one another, such as if they're friends or dating. A raped person may be drugged and unable to give consent. No matter if they knew the person who raped them or not, sex without consent is rape.
Anal rape	A man committing rape when he penetrates a woman's anus with his penis without her consent. It is possible to rape both men and women anally. The act of penetrating an anus with another part of the body or object is called 'assault by penetration'. Both men and women can commit this type of sexual assault. The courts will treat this very similarly to rape, with a maximum sentence of life imprisonment.
Marital rape	Even in a marriage, consent cannot be assumed. Marriage does not give the partner the right to force them to have sex or to have sex with them without their consent. If this occurs, it is still rape, and their partner can be prosecuted..
Gang rape	When several men commit rape on someone at the same time, it is being called 'gang rape'.
Oral rape	'Oral rape' is a term used to describe when a man penetrates a person's mouth with his penis, without their consent.
Digital rape	People sometimes use the term 'digital rape' to describe the penetration of the anus or vagina with someone's finger(s). This can happen to anyone and could be committed by both men and women. In legal terms, this is classed as 'assault by penetration' but will be treated similarly to rape if taken to court.

Fig. 1 Rape in context

X. RAPE AND ITS EFFECTS

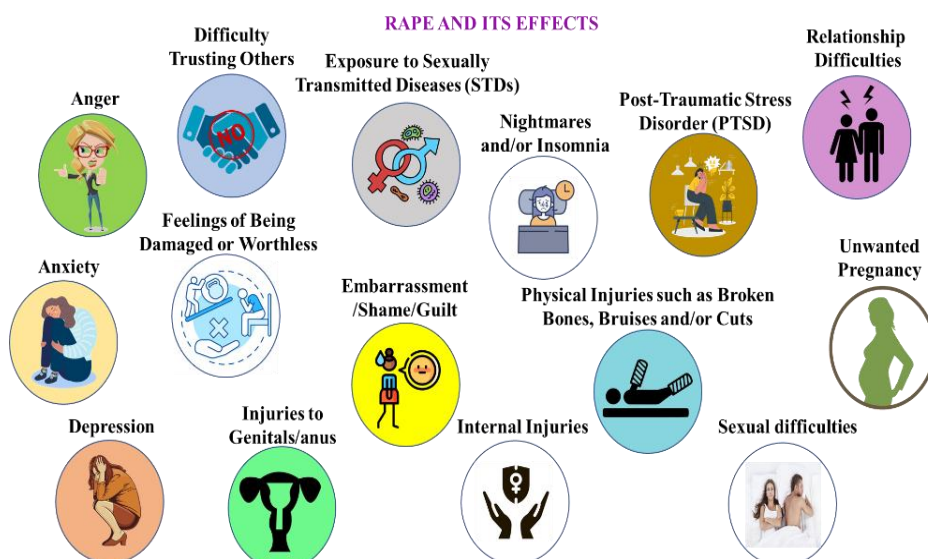


Fig. 2 Rape and its effect

XI. RAPE AXE DEVICE HOW IT WORKS

All women face the threat of rape, whether they live in a wealthy suburb or a neighbourhood that is rife with crime. Sexual assault can be committed by strangers, but it is most commonly committed by people the victim knows well. The types of sexual violence may vary depending on the circumstances and the environment. Rape-aXe can therefore be used in a wide range of situations to better protect them. Rape-aXe (RX) is a revolutionary technology and patented device that aids the fight against sexual violence. It works in the direction of the avoidance of rape and successive identification of the assailant [13,14]. This will be the only device of its kind. The RX system consists of a condom-like elastic sheath that contains razor-sharp barbs. The woman inserts the single-use device like a tampon into her vagina. When Rape-aXe is worn, it does not cause discomfort for the wearer, nor is it visible externally. There is no risk of injury to the woman. The RX can be removed by the woman when she no longer feels it is necessary to wear it as a protective device. As soon as an assailant penetrates into the vagina, he enters the Rape-aXe device. Following his first withdrawal, the barbs are attached to the skin of his penis and pull the RX device out of his vagina. As a result of the pain caused by the embedded barbs, the rapist is almost completely incapacitated. As if the penis were caught in a zipper, the relaxed penis will drive the barbs deeper into the attacker's flesh. A victim can use the surprise impact and the time to escape or fight back. An attacker can't remove the device; it can only be removed by a clinician; this could be used to positively identify an attacker and aid in his subsequent arrest and conviction. The removed device could be used to match up the DNA of the attacker and the victim to provide evidence in court. Trying to pull off the device will drive the hooks more deeply into the attacker. No harm is done to the rapist's penis if he seeks medical help immediately [13,14,15,16].

XII. OVERVIEW OF THE ANTI-RAPE (RAPE-AXE) PRODUCT USAGE

Although it is impossible to predict when a woman will be raped, she should try to avoid dangerous situations where she may be attacked. A woman feels vulnerable when she feels in danger. Since it is impossible to predict when and where an assault will occur, women should take reasonable precautions to insert an Anti-rape device before they may be in a potentially dangerous situation and should remove it only once they feel safe and secure. The anti-rape device won't be visible to the rapist. In fact, the entire device is hidden within the woman's vaginal canal and is not visible from the outside. There is no need to worry about whether the device will be attached to the rapist if the device is used. Unless the rapist withdraws his penis, the device shall be firmly attached to him by the barbs, and it will be withdrawn from the woman [12].

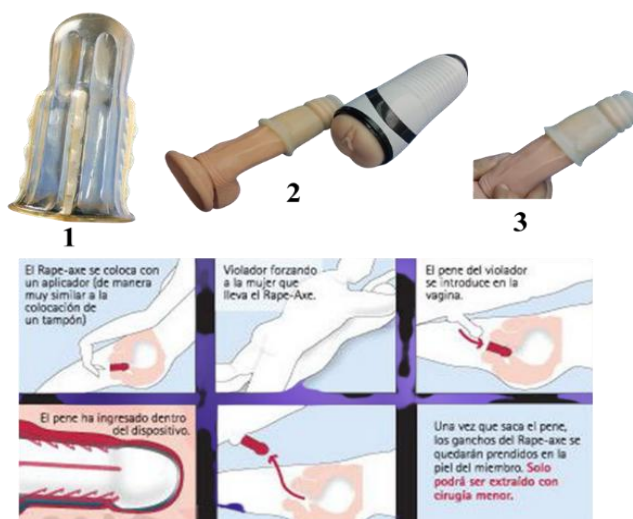
ANTI-RAPE (RAPE-AXE)

Fig. 3 Rape aXe Product picture and Mechanism

It is a one-time use device and should not be reused. There is no need for a qualified medical specialist to insert the device. This device is inserted by the woman who wears it, allowing freedom, privacy, and comfort. And the device can be inserted and worn for up to 8 hours. In a recent survey, the company asked how to pack the devices in boxes like tampons. In most women's feedback, they indicated that they prefer 3, 10, or 30 device units per package. The device is assembled in a single-use applicator and is inserted much like a tampon. Using the removal device included with each device, the device can be removed. Additionally, it is not possible for the rapist to turn Rape-aXe (RX) inside out and re-insert it into the victim. RX is designed in such a way that this is impossible. No need to worry about hooks/barbs engaging the woman after they are inserted. Only the interior of the device has barbs. A protective barrier prevents contact between the barbs and the woman wearing the device. There is no reason to doubt that the device will get lost inside the body. In addition to the cervix being too small, the walls of the vagina will hold the RX in place until they decide it is time to remove it. In some cases, the inserted device may be forgotten. Keeping the applicator/removal device visible as a reminder is recommended. In addition, Rape-aXe will not cause women to lose their virginity. Until she has sexual contact with another person, a woman is a virgin. Even if she uses a tampon, she is still a virgin, and RX is no different. As long as she hasn't had sexual contact, she is still a virgin. If she is raped, she will not be a virgin. Also, the manufacturer claims that the device will not cause an allergic reaction. All the materials are hypoallergenic as well as have undergone biocompatibility tests carried out. This device can be inserted during menstruation. A protective barrier on the device will not absorb liquids and will repel body fluids. Rape-aXe (RX) cannot be used at the same time as a tampon is used. External sanitary pads should be used with this product. And the device is comfortable to use. The anti-rape device was designed with the woman's comfort in mind. Outside, the surface is smooth and cushioned. The device does not cause discomfort to the wearer once it's in place. The experience has been described as no different than when they use a tampon [12].

XIII. MECHANISM OF THE DEVICE

The Rape-aXe Device has been designed to be able to adapt to a wide range of penis diameters, including penis on the small size as well as when the penis is flaccid. An outer sheath is elastic and may stretch to accommodate large penis diameters as well. Since the hard, pointed barbs project deep into the cavity of the RX device, they penetrate deeply into the shaft of the penis, even though it is flaccid. The direction of the barbs is pointed inward, to permit the penis to be entered without any obstruction but dig in when the penis tries to withdraw. Attempting to remove the device with difficulty will make the barbs dig deeper into your skin and make it much more painful. The Chinese finger trap comes to mind. Also, the outer sheath acts as a compression stocking, driving in the barbs and keeping them in contact with the penis for as long as possible, no matter how erect or flaccid it is. The simple answer is that a small or flaccid penis won't cause it to come off. It is impossible for a rapist to remove the device alone. Owing to the severe pain caused by the device, the attacker would have a hard time doing simple tasks such as walking, let alone doing the sensitive and skilled motions necessary for the removal of the device without incurring injury to himself [12].

The attacker was not able to remove the device on his own by cutting it with scissors. It is embedded in the elastic protective sheath is a web of tough plastic material with the barbs. The RX device is kept in tight contact with the skin of the penis by an elastic sheath. The sheath is extremely thick and durable, and it is difficult to cut. It is much more difficult to cut the hard internal webbing. It would be very difficult and risky for an untrained attacker to remove an RX device using scissors or even a pocketknife without cutting himself or causing permanent and serious harm. Additionally, the attacker will suffer severe and unbearable pain, which will hinder his ability to control the delicate motor skills required to perform surgery on himself. It is for this reason that the manufacturer recommends that this device be removed only by a qualified medical professional. The woman has enough time to escape or fight back in case the attacker attempts to remove the device himself [12].

XIV. AFFORDABILITY AND AVAILABILITY OF THE PRODUCT

This product will be made available online, through distributors, as well as in pharmacies. The manufacturer is attempting to maintain the price affordable for all women. In some developed countries, the price might be higher than in undeveloped countries. Manufacturers have been looking for support from governmental, charitable organizations, NGOs, aid groups, and donations to help subsidize the cost to women who won't be able to afford them. Manufacture encourages broad-minded people to contribute generously to help women who are unable to afford RX.

XV. THE LEGALITY OF THE PRODUCT

The legality of these anti-rape products varies from country to country. Laws in each country must be examined on a case-by-case basis. According to the legal advice they have received, however, these products cannot be prohibited from being used. When the rapist kicks the victim in the groin or claws him in the eyes, it is not possible for him to be charged with bodily harm. An RX is a self-defence mechanism. There is no legal basis to prohibit the use of the RX device as it does not cause any lasting or long-term injury to the assailant, so bodily injury claims cannot be justified.

XVI. WHAT IS CURRENTLY KNOWN ABOUT ANTI-RAPE UNDERWEAR (AR WEAR)

Rape is about as wrong as it gets. Rape is the responsibility of the rapist alone. Anti-rape wear will not solve the fundamental problem of rape that exists in our world today. Our best chance of eliminating rape as a threat to women and men alike is to raise awareness and educate them about the threat, and to bring rapists to justice. At the same time, in order to guarantee women and girls' protection from attempted rapes, AR Wear will continue to provide products that will offer better protection as long as sexual predators continue to afflict our world. The first company to manufacture anti-rape underwear is so-called AR Wear (AR stands for Anti-Rape). The researchers contend that resisting sexual assault lessens the chances of a rape occurring without increasing the violence of the attack. A major objective of the manufacturer is to offer a range of wearable items, which will include underwear, running shorts, travel shorts, etc., suitable to different situations and individual styles. It was challenging to create products that are comfortable to wear while also effectively preventing assaults. It must be very difficult for someone else to remove the garments by force or stealth if the victim cannot resist due to being too drunk, drugged, or asleep [17,18,19].

Ideally, they should resist pulling, tearing, and cutting while being comfortable to wear during normal activities and, like underwear, fit smoothly beneath form-fitting outerwear. The manufacturer, who was unable to find a material that met these specifications, strengthened specific elements of our garments using an innovative skeletal structure that allows them to remain soft and ergonomic. The waist, thighs, and central panels are protected by specially designed, cut-resistant straps and webbing. As quickly as the waist girth adjustment has been made and secured with a unique locking device, the garment cannot be pulled down. Women's waists are generally smaller than their pelvic areas, so it is possible to lock the waist strap at a comfortable position while still preventing unwanted removal of the garment. In the event that someone wants to lift or move the leg openings, the thigh straps will prevent this. The center panels are attached to both the waist and thigh straps to create a unified protective skeletal structure. Even if the wearer is drunk or drugged, anti-rape underwear will protect them. Utilizing these products found out that the resistance increases the possibility of avoiding a completed rape without making the victim more likely to be physically injured. During an attack, women and girls can passively resist an attacker with clothing that makes an effective barrier layer. This is in addition to any other form of defence they can employ [17,18,19].



Fig. 4 Anti-rape (AR Wear)

XVII. RAPE PREVENTIVE BELT

In an effort to encourage students to develop new innovations, this product was developed as part of a school project. In addition to the panic alarm and protective spray currently on the market, this product is a supplement to those two products. Due to different reasons, these two products do not always protect against an attack. These might lie in an inaccessible handbag, or they could have been left at home. Women can use them against them as they are hard to use and are in many cases difficult to use [20].

Its working principle

The concept of the product has been that wearing the belt would make it more difficult for the rapist to remove the victim's pants. The product is made up of two laser-cut metal plates. The plates are bent as well as formed into an extra buckle that attaches to the external of your ordinary belt. In order to unlock it, you have to use both hands and then move a button through a concealed labyrinth which, if the person is not familiar with the design of the labyrinth, will take time. Some of the key features of the belt are the following [20]:

i) It is difficult to open with one hand

A one-handed opening of this product is nearly impossible. This means that the abuser will not be able to hold the woman while attempting to remove her pants.

ii) It takes longer to open compared to a normal belt

It is impossible to open the belt quickly. As a result, the victim has the chance to fight back, scream and use other products to protect themselves.

iii) It cannot be used against you

In contrast to other products, such as pepper spray or stun guns, this one cannot harm the victim.

iv) The Hidden Labyrinth for protection.

When the product is closed, a labyrinth is hidden under the first layer of metal. Which makes it very hard to open the belt if they are not familiar with its design.

v) Continuous protection

In contrast to a spray or an alarm, the belt is simple to remember bringing when they leave the house. They don't have to do anything for it to help them. It is always there, all the time [20].

XVIII. CONCLUSION

People feel very strongly about women's safety, and they believe that technology has been successfully combined and new innovations will help solve a problem that has not been adequately addressed in our society. There are organizations that combat violence against women, and which offer support to those who have been violated. No product alone can resolve the problem of violence against women. However, a woman or girl who is wearing the Anti-rape condom, Anti-rape underwear, or belt will be sending a clear message to her would be attacker that she's not consenting. This indisputable message may help to prevent a substantial number of rapes. Sexual assault and rape are global tragedies. We believe that through this paper we can educate and bring awareness about the products and technology that can help people live without any fear.



REFERENCES

- [1] MARSHALL WOMEN'S & GENDER CENTER <https://www.marshall.edu/wcenter/sexual-assault/types-of-sexual-assault/>
- [2] <https://my.clevelandclinic.org/health/articles/4538-rape-and-date-rape>
- [3] Seneca Sexual Violence Policy <https://www.senecacollege.ca/about/policies/sexual-violence-policy.html>
- [4] <https://www.victimsupport.org.uk/crime-info/types-crime/rape-and-sexual-assault/>
- [5] CPS Rape and Sexual Offences - Chapter 7: Key Legislation and Offences 21 May 2021 | Legal Guidance, Sexual offences
- [6] ASU Arizona State University Sexual Assault of Women by Strangers Guide No. 62 (2011) by Kelly Dedel
- [7] Addiction Resource Rohypnol (Roofies): What It Is, Street Names, Abuse Symptoms July 5, 2021, Authored by Roger Weiss, MD
- [8] https://wiki2.org/en/Acquaintance_rape
- [9] <https://my.clevelandclinic.org/health/articles/4538-rape-and-date-rape>
- [10] LY LAWYERS- CRIMINAL LAW SPECIALISTS Blog 26.07.17 Sexual assault – can you give consent when you are drunk or high
- [11] CNN Life Philippines CULTURE Understanding consent in sexual activity by Chang Casal Nov 24, 2017
- [12] Who needs Rape-aXe? YOU DO!! March 5, 2017 by mireillepaul <https://rape-axe.com/2017/03/05/featured-content/>
- [13] <https://rape-axe.com/2017/03/18/take-back-the-power/>
- [14] Create the Future <https://contest.techbriefs.com/2013/entries/safety-and-security/3788>
- [15] <https://rape-axe.com/about/>
- [16] POPSUGAR Rape-aXe: A Terrifying Weapon Against a Terrible Crime June 21, 2010 by LOVE AND SEX
- [17] <https://flo.health/menstrual-cycle/lifestyle/anti-rape-underwear>
- [18] SLATE | THE XX FACTOR | The Comfortable, Elegant Chastity Belt for the Modern Rape Victim | BY AMANDA HESS | NOV 04, 2013
- [19] <https://www.indiegogo.com/projects/ar-wear-confidence-protection-that-can-be-worn#/>
- [20] <https://www.indiegogo.com/projects/fashion-against-rape--2#/>



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