Pregnancy Prevention and Termination of Pregnancy in Adolescence: Facts, Ethics, Law and Politics

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ABSTRACT: We present an overview of the current sexual behavior of adolescents in Israel, including the related social and moral issues, and compare it to that in Western countries. An important factor is the existence of liberal versus conservative views regarding the use of contraception and termination of pregnancy in these young subjects. We describe the current situation where in most cases the medical providers do not provide adequate contraceptive advice to adolescent girls, resulting ultimately in a high rate of unintended pregnancy. In our opinion, it is essential to make effective contraception more accessible to this vulnerable group.

KEY WORDS: sexual behavior, adolescence, pregnancy prevention, termination of pregnancy (TOP), contraception

In Israel, as in many countries, pregnancy in adolescence occupies a prominent place in the overall social agenda [1]. According to recent data (November 2014) from UNICEF, globally, 250 million girls are married by the age of 15 [2]. In developing countries, a substantial proportion of adolescent pregnancies are intentional [3]. In contrast, the teen pregnancy rate has been declining in most countries, including Israel, during the last two decades [3]. This is attributed to the more frequent use of contraceptives or, as suggested in a survey of 13,000 high school students, the rate of sexual intercourse is decreasing (Time Magazine 15 September 2014). A third of the participants reported having intercourse during the 3 months prior to the survey. The average age for first intercourse in the United States was 17.4 years for girls and 16.9 for boys.

In order to prevent unwanted pregnancy, contraception should be readily accessible for sexually active teenagers.

Pregnancy and its prevention is an extensive subject, bringing together many other issues well beyond the purely medical. It encompasses social and moral issues, religion, tradition, liberal versus conservative views, as well as cultural attitudes towards the true age of social maturity. This is exemplified by what recently occurred in Spain. Initially, the Prime Minister and Minister of Justice proposed restricting TOP, except in cases of rape or where there is likely to be harm to the physical or mental health of the woman. Supporters of this argument felt there was a need to establish a balance between the rights of the woman and the rights of the fetus. However, according to public polls, the majority of the population objected to such legislation (11th FIAPAC Conference “Task Sharing in Abortion Care,” Ljubljana, Slovenia, October 2014). Realizing that there would be strong opposition to the intended bill, the Prime Minister decided to shelve the proposal, whereupon the Minister of Justice of Spain resigned from the cabinet and from politics altogether (El Pais, 23 September 2014).

In Ireland, the Irish Parliament first approved TOP only in 2013, and then only for cases where the mother’s life is at risk or there is a suspicion that she might commit suicide. Those who claimed suicidal tendencies would be evaluated by a medical committee and, only if the committee perceived a concrete risk would the termination be approved. As was reported in Haaretz (Israeli daily newspaper, 19 August 2014), based on articles in the Guardian and the New York Times, a young woman who, according to the new law, requested a pregnancy termination at 8 weeks, was denied, even though the committee concluded that she indeed had suicidal tendencies. The woman, who was not an Irish citizen but an immigrant, eventually underwent a cesarean section at 25 weeks gestation after she went on a hunger strike. The same article also reported that in the year 2013 alone nearly 5000 women were known to have crossed the border from the Republic of Ireland to Britain in order to terminate their pregnancy. The real number was estimated to be much higher.

Israel is considered to be a young country, chronologically as well as regarding the age of its inhabitants. Almost one-third of the population is under the age of 18; this is the highest rate in the Western world [4]. In 2009, there were 161,042 births in Israel, and of these, 1.6% were to women under 20 years old. In 2006, there were 934 births to mothers aged between 14 and 18. Of 19,887 approvals for termination of pregnancy, some 7% were to teenagers under 17 (not much different to 2000). Other sources reported that more than 1000 pregnancy terminations a
year are in girls under 18 [5]. More than 14% of legal abortions in Israel in 2007 were performed in women under the age of 19, and 0.4% (approximately 80 girls) were less than 14 years old. In the same year, approximately 16% of all brides were under age 19, this percentage being much higher than in most countries in Western Europe [2]. Similar to most other countries, the majority of adolescent pregnancies in Israel are unplanned [4].

Interestingly, the subject of TOP was discussed even before the State was established, during the British Mandate. Lilach Rosenberg-Friedman (Haaretz), a researcher of that time period, noted that teenage pregnancies and abortion procedures were quite common. According to her, TOP was the most common form of contraception. Although the British Mandate prohibited abortions, the law was not rigidly enforced. Some would claim this was because the British were satisfied with the outcome. In the 1940s, according to a database of 300 women who underwent TOP, the main reason of terminating the pregnancies was financial (Haaretz, 26 July 2013). In a public discourse, the Prime Minister, the Chief Rabbi of Israel, and the Rector of the Hebrew University in Jerusalem were the loudest voices against TOP. The tragic and horrifying news coming from the death camps in Europe, compounded with the high numbers of young soldiers dying in the War of Independence, created a national outcry and demand to preserve life in order to expand numerically. Upon the establishment of the State of Israel, Prime Minister Ben-Gurion initiated grants to mothers who delivered ten or more children. This award was given equally to both Jewish and Arab mothers. In 1967 a Division of Demographics was founded in the Prime Minister’s Office, which marked the promotion of birth and the limiting of abortions as one of its main goals. [Source: Government decision number 428 of the 13th Government.]

Today in Israel, each hospital has a Board of Pregnancy Affairs, which is the authoritative body that approves or denies TOP. It acts under the power of law, which defines the circumstances that allow such approval. These are: (i) mother’s age is under 18 or older than 40 years old, (ii) the conception resulted from extramarital relations, incest or rape, (iii) the baby is at risk of being physically or mentally handicapped, and (iv) continuation of the pregnancy threatens the mother’s life or may cause her a mental or physical handicap. Further, a minor asking for TOP is exempt from obtaining parental approval [7].

The use of effective contraception by teenagers is suboptimal, for many reasons, including access, lack of consistency, fear that parents will discover that they are engaging in sexual intercourse, embarrassment, and others. This occurs even though girls aged 16 or more do not require a prescription in Israel [8] and, similarly in the USA, if older than 17 [9,10].

In Israel, 8% of boys and 23% of girls reported full sexual relations before the age of 15 [11]. These figures are relatively low, in comparison to the U.S., Canada and Europe, particularly the Nordic countries. Unfortunately, 80% of these teenagers did not use contraception during their last sexual contact, in contrast to European youths. For example, in the United Kingdom, reports show that 90% used contraception at their first sexual encounter [4,12]. In an extensive review among high school students regarding sexual relations, Shtralkhall and colleagues from the Hebrew University and Ben-Gurion University [13] observed a normative-social sexual behavior change, specifically in girls, based on a survey from the 1970s. Sexual relations, which were formerly considered normative after high school, are now considered normative already during high school. This phenomenon is accompanied by a narrowing of the previously normative difference between boys and girls [15].

In 2008, the World Health Organization organized a survey of tens of thousands of 10th graders in the Western world, including Israel [10], and incorporated sexual behavior in the study. They reported that 18.5% of the 900 Israelis (Jews only) had had sexual intercourse, compared to 27% in a previous article from 1998. This was interpreted as evidence for growing conservativeness over time among youth in Israel, as compared to Western European states such as Denmark, Sweden, Romania, England and others. In this same research, carried out in Israel by Harel-Fish and Nisim from Bar-Ilan University [11], it was reported that 5.9% of boys and 3.7% of girls experienced their first sexual intercourse before the age of 12.

Teenagers are hesitant to visit a gynecologist for sexual and contraception counseling, especially when the physician is a male. In a study of 254 females aged 14–20, Hamani and colleagues of Hadassah Medical Center in Jerusalem [14] conducted a cross-sectional survey on adolescents attending gynecologic clinics and requesting oral contraception. It was found that many young women have a negative view of contraceptive pill usage. They perceive the pill as having “unnatural” hormonal content that is “unhealthy” for them. They associate the pill with weight gain and hirsutism.

The young women in the study had difficulty weighing up benefits against risks in order to make a decision regarding this form of contraception [14]. Similar issues were raised by Gordon and Pitts [15] regarding teenagers opting for contraception.

Health funds encourage primary care doctors to prescribe contraceptive pills for their female patients. Since the primary care physician is aware of the patient’s medical history, he or she is therefore most suitable to “write the script.” Many family physicians feel uncomfortable with this approach and refer their patients to a gynecologist for at least one primary consult towards a decision on contraception. Family practitio-
perspective

A teenage girl if they feel she is mature enough to have intercourse. Consequently, in England, a new strategic policy was launched in 1995. The British Ministry of Health encourages family practitioners to provide a morning-after pill, and quick access to pregnancy tests with emphasis on the need to provide it to teenagers from the age of 16. Reports from England indicate that 40% of this age group are involved in sexual relations [12]. Consequently, in England, family practitioners are at liberty to prescribe contraception to a teenager if they feel she is mature enough to have intercourse. There is no obligation to notify the parents [18].

The House of Lords in England dealt extensively with the age factor in a case brought before it regarding a minor, where a mother wished to prevent her daughter from taking oral contraceptive pills. In their ruling, they decided that the daughter cannot be prevented from obtaining a prescription for the medicine. Their main argument was that within the relationship between a minor and one’s parent, the minor is only subordinate until he or she can take care of him or herself. In a similar vein, there is a ruling in the American constitution that permits exceptions to parental consent to contraception, on condition that the young girl understands the physician’s explanations regarding the medication [19]. Currently in England, it is estimated that about 1000 girls aged 11–12 take oral contraceptive pills, mostly without their parents’ knowledge. This represents a fivefold increase over the past decade [20]. In addition, approximately 200 girls aged 11–13 have been provided with intrauterine devices. Based on reports from British newspapers, where the source of their information includes research institutions and epidemiologic data (equivalent to the Gartner Institute in the Israeli Health Ministry), 58,000 teenagers under 15 use oral contraception. This figure represents an increase of 2.5 times that reported a decade ago. These reports noted that teenage girls prefer to consult with female physicians.

In conclusion, the status of adolescents in Israel regarding unwanted pregnancy appears to be on the decline. In order to reduce these undesired pregnancies further, information should be made available to teenage girls, especially since a large percentage did not use a contraceptive in their last sexual intercourse. With respect to the age of onset at the first sexual encounter, there has been a downturn, although the number who admitted to have had sexual intercourse by the age of 12 is by no means negligible. When these figures are compared to rates in other Western countries, we see that they do not differ by much, though they are slightly lower. We hope that this review will prompt health providers to assist these teenage girls to consider the moral and social issues involved in an unwanted pregnancy and to obtain effective contraception to avoid difficult situations.

Acknowledgments

The authors would like to thank Advocate Ms. Talia Agmon, LLB, Senior Deputy to the Legal Adviser to the Ministry of Health, Israel, for her help and guidance.

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References


**Capsule**

**Metabolic reprogramming induces resistance to anti-NOTCH1 therapies in T cell acute lymphoblastic leukemia**

Activating mutations in NOTCH1 are common in T cell acute lymphoblastic leukemia (T-ALL). Herranz et al. identified glutaminolysis as a critical pathway for leukemia cell growth downstream of NOTCH1 and a key determinant of the response to anti-NOTCH1 therapies in vivo. Mechanistically, inhibition of NOTCH1 signaling in T-ALL induces a metabolic shut-down, with prominent inhibition of glutaminolysis and triggers autophagy as a salvage pathway supporting leukemia cell metabolism. Consequently, inhibition of glutaminolysis and inhibition of autophagy strongly and synergistically enhance the anti-leukemic effects of anti-NOTCH1 therapy in mice harboring T-ALL. Moreover, they demonstrate that Pten loss upregulates glycolysis and consequently rescues leukemic cell metabolism, thereby abrogating the anti-leukemic effects of NOTCH1 inhibition. Overall, these results identify glutaminolysis as a major node in cancer metabolism controlled by NOTCH1 and as a therapeutic target for the treatment of T-ALL.


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**Capsule**

**Stable inhibitory activity of regulatory T cells requires the transcription factor Helios**

The maintenance of immune homeostasis requires regulatory T cells (Tregs). Given their intrinsic self-reactivity, Tregs must stably maintain a suppressive phenotype to avoid autoimmunity. Kim et al. report that impaired expression of the transcription factor (TF) Helios by FoxP3+ CD4 and Qa-1-restricted CD8 Tregs results in defective regulatory activity and autoimmunity in mice. Helios-deficient Tregs develop an unstable phenotype during inflammatory responses characterized by reduced FoxP3 expression and increased effector cytokine expression secondary to diminished activation of the STAT5 pathway. CD8 Tregs also require Helios-dependent STAT5 activation for survival and to prevent terminal T cell differentiation. The definition of Helios as a key transcription factor that stabilizes Tregs in the face of inflammatory responses provides a genetic explanation for a core property of Tregs.

_Science_ 2015; 350: 334

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**Capsule**

**Endogenous antigen processing drives the primary CD4+ T cell response to influenza**

By convention, CD4+ T lymphocytes recognize foreign and self-peptides derived from internalized antigens in combination with major histocompatibility complex class II molecules. Alternative pathways of epitope production have been identified, but their contributions to host defense have not been established. Miller et al. show in a mouse infection model that the CD4+ T cell response to influenza, critical for durable protection from the virus, is driven principally by unconventional processing of antigen synthesized within the infected antigen-presenting cell, not by classical processing of endocytosed virions or material from infected cells. Investigation of the cellular components involved, including the H2-M molecular chaperone, the proteasome and interferon gamma-inducible lysosomal thiol reductase revealed considerable heterogeneity in the generation of individual epitopes, an arrangement that ensures peptide diversity and broad CD4+ T cell engagement. These results could fundamentally revise strategies for rational vaccine design and may lead to key insights into the induction of autoimmune and anti-tumor responses.


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