



Chapter 1: Background

Introducing the NCAA Model Pregnancy and Parenting Policy

The NCAA Model Pregnancy and Parenting Policy (“Model Policy”) is designed to provide information and resources to member institutions and their student-athletes to effectively meet the needs of student-athletes dealing with a pregnancy. It will improve compliance with federal law and NCAA bylaws, and help institutions create a safe, healthy environment while fulfilling their educational missions. The Model Policy is intended to provide clear guidance for all members of the athletics department, including administrators, coaches, and athletic trainers, as well as for parents, and most of all, the student-athletes.

The Model Policy is a natural extension of the original purpose of the NCAA, which was to protect student-athletes. In 1905, college football players were being permanently injured and even killed at an alarming rate by the sport’s most prominent offense, called “the flying wedge.” President Theodore Roosevelt urged leaders in higher education to work together to protect the health and safety of the players, resulting in the formation of the NCAA.¹ Over the past 100 years, the NCAA has enacted many bylaws to curb harmful practices and to promote the educational mission of athletics, including instituting minimum educational standards for recruits, ensuring the academic progress of student-athletes, and instituting maximum practice

and playing times. As stated today, the NCAA’s “purpose is to govern competition in a fair, safe, equitable and sportsmanlike manner, and to integrate intercollegiate athletics into higher education so that the educational experience of the student-athlete is paramount.”²

The Model Policy is fully in accord with the NCAA’s purpose. It is based on an ethic of care, to ensure that pregnancy is treated consistently with the broad goals that all student-athletes work toward graduation,³ that physical and mental health issues be managed appropriately,⁴ and that all policies are fair to both men and women.⁵ Policies that are hostile to pregnancy and parenting - whether deliberately or inadvertently - pose obstacles to a student’s academic goals. In extreme cases, those obstacles may pressure a student-athlete to have an abortion or to jeopardize her health by not getting medical care and hiding a pregnancy in order to compete. Given appropriate monitoring and support systems, pregnancy and parenting are compatible with successful intercollegiate athletics, and many athletes have achieved success after the birth of their children.⁶ An athletics department’s compassionate, fair treatment of pregnancy can help prevent health problems, facilitate a smooth transition back to successful athletic participation, and make continued academic progress more likely.

Pregnancy Affects All College Students, Including Student-Athletes

Pregnancy and parenting are not new phenomena for college students, whether they be men or for women, athletes or non-athletes.⁷ College students are sexually active, with 74% of them reporting sexual activity in the prior 12 months.⁸ Ten percent of students reported using emergency contraception, and 1.4% reported either their own or their partner’s pregnancy.⁹ In one sample, 40% of males and 53% of females reported having intercourse in the prior 30 days,

with 3% of this subset reporting unintended pregnancy.¹⁰ In a sample of 92 female college students aged 18-25, 62% reported being sexually active, 10% said they were pregnant, and 48% thought they might have been pregnant at some time.¹¹ According to a U.S. Department of Health and Human Services report, 15% of male and female college students aged 18-24 years reported experiencing pregnancy, either theirs or their partner’s.¹² Most of these pregnancies are unintended.¹³ For women in the United States generally, unintended pregnancy is highest in the age group 20-24 years, with 10% of these women experiencing more than one unintended pregnancy and 5% experiencing an unintended pregnancy each year.¹⁴

The good news is that sports participation greatly reduces pregnancy rates for all girls and women, both reducing sexual activity overall and increasing the likelihood of consistent and effective contraceptive use.¹⁵ Female high school student-athletes are less likely to become pregnant than their non-athlete peers,¹⁶ a finding supported across racial and ethnic categories.¹⁷ The same protective effect of sports participation applies at the college level. According to one study of sexually active female college students, only 1% of female athletes reported ever experiencing a pregnancy, compared with 11% of non-athletes.¹⁸

Male student-athletes are also affected by pregnancy. Experts suggest that a reasonable estimate for pregnancy rates for female student-athletes and partners of male student-athletes for an athletics department is between 10% to 15%.¹⁹ Thus, for a sample college athletics department with 300 female and male students, 30-45 of those students may reasonably be expected to be affected by a pregnancy each year.

Despite this inevitability, few athletics programs are prepared to effectively deal with pregnancy. A survey of 85 existing intercollegiate student-athlete pregnancy policies indicates that 85% of Division I, 94% of Division II and over 98% of Division III schools lack any written policy to guide athletics departments' responses to student-athlete pregnancy and parenting concerns.²⁰ This lack of guidance leads to a number of unfortunate outcomes for all those concerned, including the student's failure to graduate. Just over 60 percent of all students who have children after enrolling in college do not finish their education, compared with a 37 percent dropout rate for those without children.²¹ Dropping out because of pregnancy and parenting is largely preventable.

Gender Neutral Pregnancy and Parenting Policies

Consistent with the NCAA's commitment to gender equity, the Model Policy enables athletics departments to end pregnancy discrimination. When a male student-athlete's partner becomes pregnant, in most cases his team membership, playing time, health benefits and scholarship are not in jeopardy. Women student-athletes who become pregnant are entitled to the same treatment.

In addition, any athletics department team membership or scholarship policies that provide for punishment of acts of pre-marital sex should be closely scrutinized for gender neutrality. The Model Policy discourages these rules because enforcing them in a gender-neutral manner is exceedingly difficult. Fair enforcement requires an institution to actively investigate charges of premarital sex by men and women who are not pregnant, investigations most institutions are loathe to undertake. Schools can easily run afoul of Title IX when pregnant women are punished

for violating prohibitions against premarital sex, while men do not suffer the same consequences.

The strength of the Model Policy hinges on the willingness of the institutional community to allow open communication and to eliminate pregnancy discrimination. The effective implementation of the Model Policy could be adversely affected if an institution were free to retaliate against student-athletes who complain about pregnancy discrimination, or retaliate against those who engage in advocacy efforts on behalf of pregnant student-athletes. Retaliation against those who report pregnancy discrimination, however, is illegal. For example, if a certified athletic trainer reported that a coach or team member was harassing a pregnant student-athlete, that trainer would be protected from adverse treatment because of his advocacy on her behalf. From a first-year student trainer to the athletics director, anyone supporting a pregnant student-athlete's right to participate is protected by Title IX. Indeed, an effective pregnancy and parenting policy hinges on the willingness of an institutional community to speak out and eliminate discrimination.

Physical Health While Participating in Athletics during Pregnancy

During pregnancy, the health of the student-athlete and the pregnancy is of utmost concern. The NCAA supports the position that high level athletic activity – with professional healthcare monitoring and plentiful hydration to prevent overheating – is generally safe before 14 weeks of gestation.²² Ten to 15% of all pregnancies spontaneously miscarry for no explainable reason in the first trimester,²³ and a high level of fitness has been found to have no effect on this rate.²⁴

Warning Signs to Terminate Exercise While Pregnant:⁵²

- Vaginal bleeding
- Difficulty breathing (dyspnea) prior to exertion
- Dizziness
- Headache
- Chest pain
- Muscle weakness
- Calf pain or swelling (need to rule out a deep leg vein blood clot or thrombophlebitis)
- Abdominal pain, cramps, or contractions before due date (preterm labor)
- Decreased movement of the baby (decreased fetal movement)
- Vaginal leakage of clear fluid (amniotic fluid leakage)

Most pregnant athletes with normal pregnancies can safely continue to participate in team activities, with progressive modifications, as the pregnancy develops past the 14th week. As these materials demonstrate, student-athletes can and do compete successfully while pregnant, with no adverse health effects. A pregnant student-athlete and her healthcare provider should monitor her for danger signs.²⁵ She should use the same schedule as a non-athlete for seeing her healthcare provider: every 4 weeks until 28 weeks, every 2 weeks until 36 weeks, then weekly until delivery.²⁶ If a student-athlete's competitive season will be completed before her 14th week of pregnancy, or her season begins 6-8 weeks after she delivers her child, she might well be able to meet training and competitive performance goals for the entire season.

Ideally, the team physician and the student-athlete's health care provider should work together to assist the student-athlete to safely continue her athletic participation if she wishes to do so. If the team physician and the student-athlete's physician disagree, the team physician—who is probably not an obstetrician—should defer to the health care provider with greater relevant medical expertise. Maternal health care providers, including obstetricians and nurse-midwives, are less likely to rely on stereotypes as to what pregnant student-athletes can and cannot do safely, and less likely to see pregnancy as requiring

the disruption of one's routine. Maternal health care providers perform a careful assessment of the student-athlete's overall lifestyle and health, including diet, stress levels and pre-existing medical conditions, and are best able to identify potentially threatening situations to the woman. When working collaboratively, the student-athlete's health care provider can equip the team physician to advocate for the student-athlete when there is an unnecessary barrier to the pregnant student-athlete's continued athletic participation.

The Physiologic Concerns for Pregnant Athletes

Medical monitoring is recommended during all stages of pregnancy to detect and respond to potential problems. Pregnant student-athletes need monitoring for the main physiologic concerns to ensure safe participation in athletics: stage of pregnancy, overheating, level of exertion, risk of injury, and pre-pregnancy health status.²⁷

Stage of Pregnancy: In early pregnancy, physical risk from athletics is low given appropriate health monitoring. First trimester nausea and vomiting ("morning sickness") may interfere with athletic participation, depending on the individual, but it does not typically harm the mother or fetus. High level athletic activity, under the guidance of a health care professional and in conjunction with the certified athletic trainer and the coach, using sensible and monitored training methods, does not ordinarily place the mother or her fetus at risk before 14 weeks of gestation.²⁸

As a pregnancy progresses beyond the 14th week, some normal physiologic changes of pregnancy will affect athletic training and performance, such as weight gain, changes in

balance, the need for increased caloric intake, the need for additional cardiac output, and joint hypermobility.²⁹ Specific exercise precautions after the 14th week include avoiding training and competition in the supine (lying on the back) position, avoiding Valsalva straining (holding one's breath and straining to increase abdominal pressure as in having a bowel movement) and avoiding activities with a high risk of falling.³⁰

Some objective physical changes during pregnancy can be predicted fairly accurately for all pregnancies, such as the progression of a woman's enlarged uterus and abdomen, and changes in blood cell counts and hormone levels. Other changes occur less predictably, and will be specific to the individual. For example, some pregnant athletes may gain more or less weight or have more problems with loose joints than others.

Overheating: Overheating, or an increase in core body temperature, is one effect of exercise. A 2008 systematic review of hyperthermia studies in pregnant athletes indicated that “no actual fetal abnormalities or adverse birth outcomes had been associated with inadequate maternal-fetal thermoregulation during exercise.”³¹ Additionally, women who are extremely physically fit, like collegiate student-athletes, are far superior at regulating their temperature and decreased core body temperatures during pregnancy than their non-athletic peers.³²

Level of Exertion: Increased heart rate, another effect of exercise, is a measure of physical exertion. It is safe for a pregnant student-athlete to continue her pre-pregnancy level of exertion.³³

Risk of Injury: The risk of falling and abdominal injury varies by sport contact level. For example, rugby is a high contact sport while swimming is a low contact sport. These risks should be assessed objectively. For example, in Australia, the Victorian Soccer Federation has classified soccer as a non-contact or limited contact sport.³⁴ A pregnant swimmer might be able to compete later in her pregnancy than a pregnant hockey player.

Pre-pregnancy Health Status: Careful professional monitoring of pre-existing medication use and health conditions such as asthma, cardiac conditions, and diabetes are essential for the pregnant student-athlete. While sports participation promotes good health generally, female athletes may be more susceptible to a “female athlete triad” of health disorders more frequently than non-athletes: disordered eating, amenorrhea, and osteoporosis.³⁵ Disordered eating ranges from simple dieting to clinical eating disorders like anorexia nervosa or bulimia nervosa and from inadvertent (forgetting to eat or lacking time to eat appropriately) to intentional (willful restriction of calories).³⁶ Disordered eating and osteoporosis may seriously affect maternal and fetal health during pregnancy. Since each of these conditions is known to occur in student-athletes,³⁷ their potential effects on the pregnant student-athlete warrant special attention.

As this section demonstrates, universal rules for sports participation that would cover every student-athlete participating in every sport are not possible. Continued participation in sports should be individually determined by the student-athlete, her maternity care provider, and the team physician and trainer, with the overarching goal of continued academic retention and progress.

Emotional Health Concerns for Pregnant and Parenting Athletes

A. Pregnancy is likely a distressing event for a student-athlete

Pregnancy is an emotion-laden process for all women, and is especially so for a student-athlete. All student-athletes – male and female – bear responsibility for preventing pregnancy if they are sexually active and do not desire to have children. However, it is important to remember that pregnancy may also result from non-consensual sexual activity or from responsible birth control use. In addition to the physical changes of pregnancy encountered by female student-athletes, male and female student-athletes must deal with overwhelming psychological and social challenges.³⁸ An unintended pregnancy requires student-athletes to re-examine their personal, athletic, and academic goals, throwing the student-athlete into disequilibrium. Usual defense mechanisms lose their effectiveness and maladaptive behaviors may result.³⁹ An unintended pregnancy is a risk factor for depression.⁴⁰ After years of training and sacrifice in preparation for intercollegiate athletics, they may agonize that their athletic, academic and professional goals will never be accomplished. Both male and female student-athletes must place the pregnancy, subsequent decisions, and future actions into the context of personally-held moral and religious beliefs.

The number of decisions demanded of a student-athlete dealing with pregnancy are numerous. The student-athlete must decide whether to continue or terminate the pregnancy, whether to parent or place the child in an adoptive home, how to continue with academic goals and professional goals, how to pay for medical and living expenses, and

how to tell significant others such as their coach, peers, boyfriend, and family members. The student-athlete may need to mourn the end of the pregnancy, whether through miscarriage or abortion.

The campus community may place additional psychological stress on the student-athlete with their views about pregnancy and student-athletes. Pregnancy is frequently viewed as the female student-athlete's “fault,” getting caught having unprotected premarital sex or other forms of moral turpitude. Some may consider the student-athlete to be taking advantage of scholarship funds or not being “responsible” or a “team player” by getting pregnant or failing to terminate the pregnancy. Wading through these decisions in an unsupportive environment, the female student-athlete legitimately fears abandonment by her primary support system; her boyfriend, her coach and her teammates when they learn of her pregnancy.

B. Navigating difficult transitions

For those who decide to carry the pregnancy to term, impending role changes include a shift from student-athlete to parent, from physically fit individual to the realities of weight gain and body image changes, from high level athletic performance to temporarily reduced performance, from “body as self” to “body as host to another.”⁴¹ All of these can be exceedingly difficult transitions, particularly if there is no readily apparent support. If these shifts are coupled with negative views expressed by her coaches and campus community, fear of abandonment may consciously or unconsciously motivate the pregnant student-athlete to either conceal her pregnancy, feel pressured to choose abortion, or worse.

A male student-athlete whose partner becomes pregnant needs support as well. Although males do not experience physical changes associated with pregnancy, they may suffer considerable psychological stress. They may have concerns about the health of their pregnant partner, they may worry about their ability to emotionally and financially contribute to the child. They may disagree with their partner about the pregnancy, whether to carry the pregnancy to term or to terminate the pregnancy. They may question their readiness for fatherhood, including the personal and financial obligations they face. They may need to mourn the child they could not have.

C. Worst case scenarios

Several negative stories in the media document the hostile environment some pregnant student-athletes confront. Student-athletes have reported feeling forced to have an abortion or risk losing their athletic award,⁴² while others concealed their pregnancy while they continue to train and compete.⁴³ In “Melissa's Story,” a popular young female student-athlete at a Christian college believed she would be expelled if she told anyone, and hid her pregnancy and ultimately chose an abortion.⁴⁴ Larissa Bellamy, a Lafayette College discus and shot put student-athlete, felt intimidated and shocked when her coach suggested she “make the mature decision” to select abortion.⁴⁵ Other student-athletes have been dismissed from their athletics teams when they told their coach that they chose to have a legal abortion. None of these student-athletes could rely on their institution’s pregnancy policy to protect them during their crisis.

Some student-athletes have been able to conceal their pregnancy, only getting medical and

emotional help just before the birth. Ashley Shields continued to play basketball at Northwestern Mississippi Community College until her eighth month of pregnancy before giving birth to a healthy son.⁴⁶ Syracuse University basketball player Fantasia Goodwin returned to the basketball court after hiding her pregnancy until just before the last game of the season. She gave birth to a healthy daughter April 19th, 2007.⁴⁷ Connie Neal played eleven games in 2003 before she told her coaches at the University of Louisville. Her last game was December 20th, and she gave birth to her daughter on January 31st. She returned in time to complete the remainder of the season.⁴⁸ While these stories have happy endings with healthy children and a student-athlete on-track to graduate, others have not.

The scenario that every university and athletics department would like to avoid is a student-athlete’s concealed pregnancy that results in loss of life. In two separate incidents during 2007, two freshmen student-athletes killed their full-term infants in their college dorm rooms after concealing their entire pregnancies.⁴⁹ These student-athletes, one of whom reportedly had a sports physical two days before her delivery, did not seek out medical care or emotional counseling. It is impossible to know with certainty what would have happened if the school had adopted and publicized the Model Policy at these two institutions. However, an institution that communicates the athletics department’s policy on pregnancy, tells student-athletes that their team participation and athletics award is safe regardless of their choices about their pregnancy, provides information about health care, child care, and legal protections by federal and state laws, adoption resources and applicable Safe Havens laws,⁵⁰ is far less likely to have a death or infant homicide in their department.

Pregnancy Disclosure Requirements are Discouraged

Many schools require that student-athletes waive their rights to medical privacy or disclose existing medical conditions. The Model Policy discourages such disclosure requirements for pregnancy for several reasons. First, the pregnancy may be timed so as not to impact the student's ability to perform athletically, making the disclosure unnecessarily intrusive. Second, ten to fifteen percent of all pregnancies spontaneously miscarry for no explainable reason in the first trimester. Third, the pregnant student-athlete has choices regarding the pregnancy; she may decide to terminate the pregnancy or she may decide to carry the pregnancy to term. The student-athlete often needs time and space to sort through the emotional issues and life-long decisions about the pregnancy, time that is typically medically safe to take while continuing to participate in athletics. A disclosure requirement is more likely to pressure her to make a rushed decision about the pregnancy. Ideally, the supportive environment envisioned under the Model Policy will enable student-athletes to seek out medical and emotional help as needed rather than due to a compulsory or inflexible disclosure requirement.

Pregnancy Status and Privacy

When the student-athlete discloses the pregnancy to the team physician, the Model Policy supports the decision to keep that information confidential as long as it is medically safe to do so. The ethical dilemma for professional healthcare providers, including team physicians and certified team trainers, is to simultaneously protect the health of the student-athlete, her pregnancy and her privacy. Optimally, every health care provider can meet both ethical requirements concurrently with appropriate health interventions in a private setting. However,

imperfections must be acknowledged; some student-athletes will try to conceal their pregnancy inappropriately or try to exercise more strenuously than is medically sound. Some health care providers will gossip or use trumped up medical justifications to exclude her from team participation. However, a policy that puts the student-athlete in control of revealing her pregnancy status will enable her to make better decisions about her pregnancy and make it less likely she will hide it unnecessarily.

Finding Experts within the Institution

The NCAA encourages institutions to reach out to experts in the broader academic community for valuable interdisciplinary information, support, and perspective to assist the student-athlete in making difficult life decisions about pregnancy and parenting. The female student-athlete may not realize that she has time to decide what to do before action is needed. This “neutral counsel” may include the Faculty Athletics Representative, professionals in nursing, medicine, counseling, women's services, and student health services. Typically these resources are available without cost in the university setting. The interdisciplinary team can assist the athletics department in implementing this Model Policy to meet the needs of their student-athletes.

Embracing an Ethic of Caring

Athletics is about competition. It is also about the student-athlete's health, well-being, and continued academic progress. There are times when it is not possible for student-athletes to contribute meaningfully to the team's success due to injuries or illnesses associated with temporary disabilities including pregnancy. Adjustments are made for those who are sick or not

at their best due to common human maladies and struggles. A policy that protects team participation and financial aid expresses the high value that athletics and the institution place on the individual paths of each student-athlete, not just their potential to contribute to a win-loss record.

The concerns and issues described are not new ones for student-athletes confronting pregnancy. Many persons in athletics departments have traversed these same transitions in life successfully, either personally or while mentoring student-athletes. A well-developed policy can empower those in athletics departments to help student-athletes navigate these critical decisions through a primary support system that meets the standards expected of those entrusted with the student-athlete’s health and well-being.

Summary

The benefits of sports participation for student-athletes, particularly females, are astounding: higher grades and graduation rates, development of leadership and teamwork skills, and life-long physical and emotional health boosts.⁵¹ With these remarkable life-long advantages women gain from sports participation, and with the medical safety assurances, pregnant and parenting student-athletes may continue their participation in the educational experience of athletics. The NCAA’s Model Pregnancy and Parenting Policy is provided to help institutions deal with the inevitability of pregnancy in a compassionate manner that is gender-neutral, compatible with NCAA Bylaws and federal anti-discrimination laws, and consistent with the NCAA’s mission to integrate intercollegiate athletics into higher education and support student-athlete graduation.

Footnotes

1. See NCAA History. Available at: <http://www.ncaa.org/about/history.html>
2. NCAA Core Purpose. Available at: <https://www.ncaa.org/wps/ncaa?ContentID=1352>
3. The NCAA Academic Progress Report (APR) provides a benchmark for how well athletic programs maintain eligibility and graduate athletes. Athletic teams whose members are not progressing toward graduation or do not graduate can lose up to ten percent of available scholarship awards. Available at: <http://www.ncaa.org/wps/ncaa?ContentID=276>
4. Thompson, Ron A; Sherman, Roberta Trattner (undated). NCAA Managing Student-Athletes’ Mental Health Issues. Available at: <http://www.ncaa.org/wps/ncaa?ContentID=283> .
5. 2006–2007 Division I Athletics Certification Handbook, NCAA. Available at: <http://www.ncaa.org/wps/ncaa?ContentID=37341>. (“An athletics program can be considered gender equitable when the participants in both the men’s and women’s programs would accept as fair and equitable the overall program of the other gender.”)
6. See “Case Studies” in these materials.
7. Moos, M. (2003). Unintended pregnancies: A call for nursing action. MCN: The American Journal of Maternal Child Nursing, 28, 24-31; Finer, L. & Henshaw, S. (2006). Disparities in rates of unintended pregnancy in the United States, 1994 and 2001. Perspectives on Sexual and Reproductive Health, 38, 90-96. (Estimates of pregnancy rates in college students range widely, between 1.5% and 45%.)
8. American College Health Association. (2005). Reference group executive summary Fall 2005. Available at: [http://www.acha.org/projects_programs/NCHA_docs/ACHA-NCHA_Reference_Group_Executive Summary_Fall2005.pdf](http://www.acha.org/projects_programs/NCHA_docs/ACHA-NCHA_Reference_Group_Executive_Summary_Fall2005.pdf)

9. American College Health Association. (2005). Reference group executive summary Fall 2005. Available at: http://www.acha.org/projects_programs/NCHA_docs/ACHA-NCHA_Reference_Group_Executive_Summary_Fall2005.pdf (n = 16,832; mean age 22.6 ± 6.5 years)

10. American College Health Association. (2005). Reference group executive summary Fall 2005. Available at: http://www.acha.org/projects_programs/NCHA_docs/ACHA-NCHA_Reference_Group_Executive_Summary_Fall2005.pdf

11. Naber, J. & Perlow, M. (2006). Self-protecting behaviors in college females. Kentucky Nurse. Available at: http://findarticles.com/p/articles/mi_qa4084/is_200604/ai_n16123646/pg_1. (n = 92; mean age 20.4 ± 1.6 years.)

12. U.S Department of Health and Human Services. (1997). Centers for Disease Control and Prevention November 14, 1997 Morbidity and Mortality Weekly Report: Youth Risk Behavior Surveillance: National College Health Risk Behavior Survey—United States, 1995. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/00049859.htm>

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14. Finer, Lawrence B. & Henshaw, Stanley K. (2006). Disparities in rates of unintended pregnancy in the United States, 1994 and 2001. Perspectives on Sexual and Reproductive Health, 38, 90-96.

15. Miller, K.E., Sabo, D., Farrell, M.P., Barnes, G.M., and Melnick, M.J. (1999). “Sports, sexual activity, contraceptive use, and pregnancy among female and male high school students: Testing cultural resource theory.” Sociology of Sport Journal, 16:366-387; See generally Don Sabo et. al., The Women’s Sports Foundation Report: Her Life Depends On It: Sport, Physical Activity and the Health and Well-Being of American GIRLS (2004).

16. Dodge, T., and Jaccard, J. (2002). “Participation in athletics and female sexual risk behavior: The evaluation of four causal structures.” Journal of Adolescent Research, 17:42-67; Miller, K.E., Sabo, D., Farrell, M.P.,

Barnes, G.M., and Melnick, M.J. (1999). “Sports, sexual activity, contraceptive use, and pregnancy among female and male high school students: Testing cultural resource theory.” Sociology of Sport Journal, 16:366-387; Page, R.M., Hammermeister, J., Scanlan, A., and Gilbert, L. (1998). “Is school sports participation a protective factor against adolescent health risk behaviors?” Journal of Health Education, 29(3):186-192; Rome, E.S., Rybicki, L.A., and Durant, R.H. (1998). “Pregnancy and other risk behaviors among adolescent girls in Ohio.” Journal of Adolescent Health, 22:50-55; Sabo, D., Miller, K.E., Farrell, M.P., Barnes, G.M., and Melnick (1998). The Women’s Sports Foundation Report: Sport and Teen Pregnancy. East Meadow, NY: Women’s Sports Foundation. See generally Don Sabo et. al., “The Women’s Sports Foundation Report: Her Life Depends On It: Sport, Physical Activity and the Health and Well-Being of American Girls” (2004).

17. Sabo, D., Miller, K.E., Farrell, M.P., Barnes, G.M., and Melnick (1998). The Women’s Sports Foundation Report: Sport and Teen Pregnancy. East Meadow, NY: Women’s Sports Foundation. (Reduced pregnancy rates for athletes were found for white, African American and Latina girls in a nationwide sample.)

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19. Sorensen, Elizabeth A., Sincoff, Michael Z. & Siebeneck, Erin M. (2008). The Need for an Effective Student-Athlete Pregnancy and Parenting Policy. (Unpublished.)

20. Sorensen, Elizabeth A., Sincoff, Michael Z. & Siebeneck, Erin M. (2008). The Need for an Effective Student-Athlete Pregnancy and Parenting Policy. (Unpublished.)

21. U.S. Department of Education, National Center for Education Statistics. Short-Term Enrollment in Postsecondary Education: Student Background and Institutional Differences in Reasons for Early Departure, 1996-98, 33-35 (November 2002). Available at <http://nces.ed.gov/pubs2003/2003153.pdf> (Of those who started at a public 4-year institution in 1995-96 but left without a credential and did not return by the spring of 1998, 60.3% had more dependents than when they began college. For private not-for-profit 4-year institutions, that number was 58.9%, and for public 2-year institutions, the number was 61%. For private

not-for-profit 4-year institutions, the drop-out number was 58.9%, as compared with 37% drop out rate for students who did not have children.)

22. NCAA 2008-09 Sports Medicine Handbook Guideline 3b: Participation by the pregnant student athlete, p. 80, 81. Available at: <http://www.ncaa.org/wps/ncaa?ContentID=283>.

23. Schieve, Laura A., Tatham, Lilith, Peterson, Herbert B., Toner, James & Jeng, Gary (2003). Spontaneous abortion among pregnancies conceived using assisted reproductive technology in the United States. *Obstetrics and Gynecology*, 101, 959-967. Available at: <http://acoginl.highwire.org/cgi/content/abstract/101/5/959>

24. Lewis, Beth; Avery, Melissa; Jennings, Ernestine; Sherwood, Nancy; Martinson, Brian; & Crain, A. Lauren (2008). The effect of exercise during pregnancy on maternal outcomes: Practical implications for practice. *American Journal of Lifestyle Medicine*, 2(5), 441-455. Available at: <http://ajl.sagepub.com/cgi/reprint/2/5/441> ; NCAA 2008-09 Sports Medicine Handbook Guideline 3b: Participation by the pregnant student athlete, p. 80, 81. Available at: <http://www.ncaa.org/wps/ncaa?ContentID=283>.

25. See “Warning Signs,” Sidebar.

26. Lowdermilk, D. & Perry, S. (1999). *Maternity Nursing* (6th ed.). St. Louis: Mosby.

27. “Exercise during pregnancy and the postpartum period,” ACOG Committee Opinion No. 267. American College of Obstetricians and Gynecologists. *Obstet Gynecol*, 2002; 99: 171–173.

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29. Edwards, M. (1986). Hyperthermia as a teratogen: Review of experimental studies and their clinical significance. *Teratogenic Carcinogens & Mutagens*, 6, 563-82.

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33. “Exercise during pregnancy and the postpartum period,” ACOG Committee Opinion No. 267. American College of Obstetricians and Gynecologists. *Obstet Gynecol*, 2002; 99: 171–173.

34. Victorian Soccer Federation (2003). Pregnancy: Participation of the pregnant athlete in soccer. (The VSF also prohibits using pregnancy as justification for preventing an individual from competing in soccer. The VSA recommends that if the pregnancy is progressing normally in the first trimester, then ongoing consultation with the physician or obstetrician may make participation possible into the second trimester.)

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