

Although menarche, or the onset of menstruation, is probably the most important pubertal event for girls, research in college and university centers about the meaning of menarche and menstruation for young girls has until lately been scant indeed. Investigations of young boys' attitudes and thoughts about this aspect of female development are rarer still. Given a developmental literature that is lacking in information about the significance of menarche and menstruation, it is not surprising that education about menstruation in primary and secondary schools continues to be quite limited for girls, and is often non-existent, if not taboo, for boys. We believe that this generally limited education, or absence of education, about this particular aspect of being female has important consequences for girls' and boys' notions of what it means to be female.

To begin to address this important area of neglect in girls' and boys' learning, we have developed a data-based approach to menstrual education. The empirical findings from our research on the psychological significance of menstruation provide the basis for recommendations that we offer for improving education about menstruation for both girls and boys. We believe that an improved curriculum will not only expand young people's understanding of menstruation, but will also provide them with an opportunity to integrate knowledge of this aspect of being female into a broader perspective on the female gender.

### Background

Menarche occurs relatively late in the sequence of pubertal changes that girls experience. It tends to follow the growth spurt and the appearance of secondary sex characteristics, such as breast development, changes in body contour, including fat deposition, and the appearance of pubic hair. Menarche can occur as much as two and a half years after these other changes. While we know that the average age of menarche in this culture is 12.6 years (Tanner, 1977), we are not completely certain about underlying mechanisms that trigger the onset of menstruation. Skeletal maturity (Ellison, 1982), a critical weight for height, and an accumulation of fat (Frisch, 1980) have all been named as influential factors.

We know more about the broad cultural beliefs concerning menarche and menstruation than we do about the personal impact of menstruation on girls' and women's lives. We know that throughout history, menstruation has generally been depicted as a negative experience. Descriptions of the isolation of newly menarcheal girls and menstruating women from other members of society abound in anthropological descriptions of the treatment of women in various cultures (e.g., Weidinger, 1975). Though the menstrual taboo has lessened to some degree in our own culture, myths about female instability and incompetence in relation to menstrual experience continue even here. Media coverage of Geraldine Ferraro's qualifications as a vice-presidential candidate included, alas, reference to her potential lack of control on "those days."

Similarly, and perhaps of more immediate concern to young girls, is the current re-emergence of an old 19th century notion - namely, that female intellectual development is curtailed by pubertal development. Proponents of the notion point to the co-occurrence of puberty and girls' diminished academic performance in some areas during the junior high school years as ready proof for the theory.

Although we talk more openly about menstruation today, what we say is in fact a further articulation of our culture's negative interpretation of the event. Women and men use derogatory terms, such as "falling off the roof" or "the curse," when referring to menstruation (Ernster, 1975). Menstrual products, now fair game for public advertisements, are noted to be "successful" because they help to prevent "accidents." Product information, which also serves as educational material for young girls, emphasizes menstruation as a hygienic crisis and urges girls to try to "act normal" so that no one will know (Whisnant, Brett, & Zegans, 1975), thus implying that having a period is somehow abnormal, or includes the risk of acting abnormally.

In contrast to our culture's rather well-articulated negative interpretation of menarche and menstruation, there is only a small research-based set of information about the personal, psychological impact of menstruation on girls and women. Cultural beliefs have impeded investigation into the meaning of menstruation and the recognition of the potential importance of such meanings in psychological studies of girls' and boys' development.

What little interest there is in this area comes primarily from psychoanalytically-oriented clinicians who have typically drawn their conclusions from their clinical experiences, using as their sources of data mainly retrospective accounts of menarche obtained from adult women in treatment or analysis. Results from retrospective studies may not be generalizable because the data base consists of information that has been remembered, and thus is subject to distortion. Even data from adolescent girls in treatment or analysis at the time of menarche, while of interest, is of limited usefulness, because the experience of these girls may not reflect the experience of "typical" girls. In general, results obtained from girls and women needing and accepting psychiatric treatment cannot necessarily be taken as representative of members of the general population.

Largely missing then, are studies of typical girls at or close to the time they begin menstruating, as well as studies of the menstrual attitudes and experiences of typical older females. Our research is intended to help fill this void. In this paper, we will report findings that have emerged from several studies we have conducted concerning attitudes toward menstruation. The research work we will be discussing includes (a) cross-sectional data about menarcheal experience and about attitudes toward menstruation from early adolescent girls in grades six through nine; (b) cross-sectional data on menstrual attitudes from females and males ranging in age from 11 to 60 years; and (c) retrospective data from college-aged females about their preparation for menstruation. In reporting the results of these studies, we will concentrate on those findings we feel are particularly instructive to individuals interested in designing effective menstrual education materials