The ‘causes’ of teenage pregnancy: review of South African research – Part 2

Catriona Macleod

Department of Educational Psychology, University of Zululand, Private Bag X1001, KwaDlangezwa 3867, South Africa
Email: cmacleod@pan.uzulu.ac.za

This article forms the second of a two-part series in which South African research on teenage pregnancy is reviewed. Part 1 of the series dealt with the consequences of teenage pregnancy; this paper reviews the ‘causes’ thereof. International literature is incorporated in the discussion by way of comparison. Contributory factors which have been investigated by South African researchers include: reproductive ignorance; the earlier occurrence of menarche; risk-taking behaviour; psychological problems; peer influence; co-ercive sexual relations; dysfunctional family patterns; poor health services; socio-economic status; the breakdown of cultural traditions; and the cultural value placed on children. Preston-Whyte and colleagues present a revisionist argument, stating that early pregnancy may represent a rational life choice for certain adolescent women. The article is concluded with comments on methodological problems encountered in the South African research, and a discussion on the implications in terms of policy formulation.

Teenage pregnancy has been defined predominantly within the research field and among social agencies as a social problem. While there is some opposition to this interpretation from the ‘revisionists’ in the United States and Britain, the South African literature, with minor exceptions, follows this major trend. Given this, there has been a concerted effort to tease out the ‘causes’ of early pregnancy. The logic here is that if the factors that contribute to teenage pregnancy can be isolated, those teenagers who are ‘at risk’ can be identified, and preventive programmes can be instituted.

This article reviews South African research on the ‘causes’ of teenage pregnancy. It is the second in a two-part series. Part 1 reviewed the South African literature which highlighted the consequences of teenage pregnancy. As in Part 1, some international literature is incorporated by way of comparison. In the review, research which used teen parents or pregnant teenagers as participants, as well as that which used the general teenage population is included. The reason for the inclusion of the latter is that much research has been conducted around issues which are considered to be risk factors for pregnancy in the general population.

Research in South Africa covers a wide range of contributory factors. One of the most commonly cited is reproductive ignorance. The role of parents and of sexuality education programmes is examined in this respect. Other ‘causes’ range from more individually based to more socially based factors. Under the former we find biological considerations (such as the earlier occurrence of menarche), behavioural causes (such as risk-taking behaviour) and psychological problems (such as poor self-concept or delayed moral development). Those taking a more socially orientated stance argue that peer influence, dysfunctional family systems, poor health services, poor socio-economic status, the breakdown of cultural traditions and, paradoxically, the cultural value placed on children contribute to conditions which put teenagers at risk for pregnancy. Preston-Whyte and colleagues argue that early pregnancy represents a rational choice on the part of certain adolescent women.

In order to access the literature contained in this article bibliographic searches were conducted (NEXUS, SABINET, PsycLit, Social Science Citation), and letters were written to the Heads of Departments of relevant social science, education and medical departments at South African universities. Non-governmental organisations were also approached for information.

The contributory factors in teenage pregnancy

Reproductive ignorance

Ignorance concerning sexuality, contraception, conception and reproductive biology is seen by many researchers as the major contributing factor in teenage pregnancy. Seabela (1990) and Boult and Cunningham (1992) report that two-thirds of their samples of 100 and 145 pregnant teenagers respectively were ignorant concerning the relationship between menstruation, coitus, fertility and conception at the time of conception. Craig and Richter-Strydom (1983a; 1983b) describe a higher percentage lacking this sort of information (82% of the 212 pregnant teenagers interviewed), O’Mahoney (1987) a slightly lower ratio (12 of 30 pregnant teenagers).

This lack of knowledge concerning reproductive biology has been found to be a feature among the general teenage population (Buga, Amoko & Ncayiyana, 1996b; Magwentshu, 1990; Mayekiso & Twaise, 1993; Nicholas, 1994; Richter, 1996), with some variation. Bodibe (1994), for instance, indicates that in his study of 157 black pupils, the rural adolescents had greater sexual knowledge than their urban counterparts, with age as a co-variate. Buga, Amoko and Ncayiyana (1996b) found, unsurprisingly, that the sexually experienced girls in their sample had more knowledge than the sexually inexperienced girls.

There are a number of difficulties associated with the research which investigates the reproductive ignorance hypothesis. Firstly, the implied one-to-one correspondence between reproductive ignorance and teenage pregnancy is spurious. Obviously, a lack of sexual knowledge is not a sufficient condition for conception, nor is it even necessary. Secondly, it is not always clear what is termed sufficient/insufficient knowledge; the questions asked to determine this, although not always specified, vary across researchers. Thirdly, questions surrounding contraceptive knowledge focus on Western-based forms thereof. Few consider more traditional forms of preventing pregnancy, such as intercrural sex (*ukusoma* in Zulu). Fourthly, it is not clear what the differences in knowledge are between teenagers who have conceived and those who have not, as no comparative research has been conducted. Peltzer and Likwa (1992-93),[1] for instance, in their Zambian study, found no differences between a pregnant and a matched non-pregnant group of teenagers in terms of knowledge, attitude towards and use of contraceptives. Lastly, there are also no studies which provide comparative data on the knowledge that teenagers have versus an older cohort of women, or men. In a Zimbabwean study of teenage and older (20 years and over) mothers, Mahomed

and Masona (1991) found that the older group had a higher level of claimed contraceptive knowledge. However, both groups' knowledge of the most likely period for conception was poor, as well as their actual contraceptive usage.

Various authors have investigated the source of teenagers' sexual information. As can be seen in Table 1, peers play a significant role in the transfer of sexual knowledge. Many authors view this as problematic as peers are seen as less reliable, or as providing less accurate information than, for example, teachers or health professionals. However, Anagnostara (1988), in her study of 152 school-going students in Soweto and Alexandria, found that the source of knowledge (parents/health professionals versus friends/siblings) did not make a difference in sexual knowledge or attitude.

It appears that parents in South Africa (Bailie, 1991) and the United States (Caldas, 1993) play a very small role in transferring information to their teenage children. Setiloane (1990) found a geographical difference: 42% of his urban sample of pregnant teenagers said that their parents had informed them about contraceptives, while only 6.85% of the rural sample did. Various possible reasons have been put forward for parents' reluctance to discuss sex with their teenage children, including shyness, parents not receiving sexuality education at school themselves, religious reasons (Bailie, 1991), and a strong incest taboo (Nicholas, 1993).

Weitsz (1990), in her survey of 1100 white parents with children at former Transvaal Education Department schools, found a high level of concern amongst the parents with respect to their teenage children either conceiving or fathering a child. However, this may not translate into a willingness to provide sex education, or to agree to sex educational programmes being introduced in schools (Nicholas, 1993), partially because of a fear that this may encourage early sexual engagement.

The introduction of sex education in South African schools is a relatively new phenomenon. Olivier (1987), in her survey of *Fair Lady* readers, found that only 1.7% of the respondents had received sex education at school, with the percentage dropping with age. Bam (1994) surveyed schools in the former Department of Education and Training in the Highveld region of the former Transvaal. Of the 61 schools that responded, 34.4% indicated that sexuality education was conducted in the school. Content analysis of the curricula offered in these schools revealed deficiencies in many areas (e.g. no discussion, amongst others, of reproductive disorders, childbirth and postpartum period, pornography, various sexual behaviours).

Evaluations of the efficacy of sex education programmes have yielded mixed results both in South Africa and the United States (Jorgensen, 1991). Page (1990), in a South African study, found that both males and females demonstrated a significant increase in their level of sexual knowledge after being exposed to a programme presented by FAMSA. However, their attitudes towards contraception and pre-marital sex did not change nor did their sexual behaviour. Seydel (1992) interviewed English-speaking (white and coloured), sexually active teenagers attending a family planning clinic. She divided her sample into three groups:

(a) those teenagers who had no formal, school-based sex education;
(b) those who had received some sex education; and
(3) those who had received a lot of sex education.

The three groups did not differ in their knowledge of sexual matters, nor in their attitudes towards contraception and abortion.

The link between sexuality education and sexually related behaviour seems tenuous indeed. In her survey, Richter (1996) found that increased pregnancy preventive practice was not associated with either exposure to formal instruction on reproductive health matters or to a constructed measure of knowledge of reproductive health risks, but rather with exposure to a supportive information environment. Hanson, Myers and Ginsburg (1987), in their study of American sophomore students, came to the same conclusion. Knowledge, as measured by self-report and sexual education courses, they say, has no effect on the chances of a teenager experiencing pregnancy.

In the end, it is difficult to have anything conclusive to say concerning sex education programmes in general as they differ significantly in duration, depth, quality, mode of delivery, and agency of delivery. Furthermore, as Van der Elst (1993) points out, the term sexuality education is not a stable unitary construct, but is a broad rubric whose meaning changes historically and

Table 1 Sources of sexual information

Author(s)	Sample	Source of information
Bodibe (1994)	157 black high school pupils	Books: 27.4% Friends: 20.4% Adults other than parents: 14.6%
Harilal (1993)	150 urban Grade 10 Indian students	'Mainly' peers and books
Kau (1988)	210 female students	Friends: 33.3% Nurses: 11% Mother: 10% Sister: 10% Teachers: 5%
Magwentshu (1990)	135 males and 120 females: Soweto High Schools	Peer group: 19% Mother: 12% Literature: 1.9% School teacher: 11% Media: 9.2% Father: 1.3%
Mayekiso & Twaise (1993)	50 black schoolgirls in Umtata	Peers: 45.8%
Richter (1996)		Peers: 69 Health professionals: 17%

contextually. Indeed, there has been no real analysis in South Africa of the construct of sexuality education and the ideological messages that may accompany it, although Richter (1996) and Mkhize (1995) indicate that the knowledge transferred to teenagers is often permeated with moral admonition. Feminists in the United States have taken up this issue. Chilman (1985), for instance, looks at the implications of sexuality education being directed mainly at girls. Fine (1988), in an paper titled 'Sexuality, schooling, and adolescent females: The missing discourse of desire', states:

> Within today's standard sex education curricula and many public school classrooms, we find: (1) the authorized suppression of a discourse of female sexual desire; (2) the promotion of a discourse of female sexual victimization; and (3) the explicit privileging of married hetereosexuality over other practices of sexuality (p. 30).

Risk-taking behaviour

Risk-taking behaviour is defined in this context as behaviour that increases the chances of conception. This includes the engagement in sexual intercourse, an earlier age at first coitus, and the non-use of contraceptives.

The reported percentage of teenagers who are sexually active varies considerably. The following rates are quoted:

* 17.4% both sexes (Flisher, Ziervogel, Chalton, Leger & Robertson, 1993);
* 25% both sexes (Louw in Preston-Whyte, 1991);
* 22% females, 45% males (Magwentshu, 1990);
* 42.8% females (Du Toit, 1987);
* 92.1% rural females (Sigwaza, Ross, Mfeka, Dlamini, Ngubane & Philpott, 1995);
* 76% rural females, 90.1% rural males (Buga *et al.*, 1996a, 1996b);
* 70% males, 66% females (Richter, 1996).

The variation in these reported rates may have to do with a number of factors. Firstly, the geographical area differs between studies. For example Sigwaza *et al.* (1995) and Buga *et al.* (1996a; 1996b) conducted their studies in rural areas, whereas others used urban samples. Secondly, the age of the respondents varies. Sigwaza *et al.* (1995) used an adult sample who reported retrospectively on the initiation of their sexual activity, while other studies used research participants who were still in their teenage years. Thirdly, the studies used self-report, which may not always be reliable. Indeed, Nicholas, Durrheim and Tredoux (1994), in their article titled 'Lying as a factor in research on sexuality', indicate that in their study of first-year university students subjects were more truthful in completing biographical/ career and sociopolitical scales than they were completing the sexuality scale.

It does appear, however, that many teenagers are engaging in sexual intercourse, which, of course, puts them at risk for conception. However, as Richter (1996) points out, the sexual encounters are often infrequent or sporadic, the frequency increasing with the seriousness of the relationship.

The average reported age at first coitus is relatively young: 14.86 ± 1.81 girls (Buga *et al.*, 1996a, 1996b), 11 ± 3.82 males, 14.5 ± 4.11 females (Magwentshu, 1990), 14.3 ± 2.2 males 16.4 ± 1.5 females (Richter, 1996).

The reported rate of usage of contraceptives amongst sexually active teenagers varies as well. Reported non-use at first sexual encounter varies from 35.7% males, 32.8% females (Nicholas, 1994) to 85% both sexes (Louw, in Preston-Whyte, 1991). The reported regular use of contraceptives is low: 23% (Buga *et al.*, 1996a, 1996b), 14.8% (Kau, 1988), 15.6% (Olivier, 1987). There is usually a period of time between first sexual encounter and commencement of usage of contraceptive (Kau, 1988; Van Coeverden de Groot & Greathead, 1987). Responsibility for pregnancy prevention appears to be seen as joint by the majority of urban adolescents, although there is a tendency to assign more responsibility to the woman (Richter, 1996).

Most of the studies mentioned above only consider modern contraceptive methods. However, Sigwaza *et al.* (1995) found that the most practised form of contraception among rural adults is intercrural sex (although its current usage is diminishing). Of their adult sample of 242 women, 92.1% indicated that they had had their first coitus between the ages of 9 and 20 years. However, only 27 of these had had children between the ages of 16 and 21 years, indicating a high level of effective family planning. Richter (1996) did include intercrural sex and the rhythm method in her study of urban adolescents. However, the reported usage was low at 1%.

As would be expected, a large majority of pregnant teenagers were not using any form of contraception at the time of conception (Craig & Richter-Strydom, 1983a, 1983b; Mkhize, 1995; Mogotlane, 1993), although many knew that there were ways of preventing pregnancy (Makhetha, 1996; Setiloane, 1990). Reasons cited for the lack of use of contraceptives vary. While Setiloane (1990) found that the two most commonly stated reasons were disapproval by either partner or parents, these reasons were quoted in only 4% of cases in Craig and Richter-Strydom's (1983a) study. Other stated reasons cited by various authors (Craig & Richter-Strydom, 1983a, 1983b; Mkhize, 1995; Mogotlane, 1993; Mosidi, 1992; Seabela, 1990) include: the unplanned nature of the sexual encounter; a lack of knowledge concerning contraceptives; fear of the health risks associated with certain contraceptives; personal fable (believing that it would not happen to them); fear of going to the clinic because of the image factor; lack of trust in the nurses concerning confidentiality; and religious reasons. Carolissen (1993) believes that the cultural value placed on fertility (see later discussion) tied to the concern that contraceptives cause infertility accounts for much of the avoidance of contraceptives.

As can be seen from this discussion, the South African research on risk-taking behaviour is mostly descriptive in nature. Researchers in the United States have extended this to investigating the factors associated with risk-taking behaviour (e.g. Luster & Small, 1994), and to developing cognitively based theoretical models which may account for this behaviour in certain adolescents (e.g. Gordon, 1990; Trad, 1993).

Early menarche

Investigators indicate that the earlier the menarche, the earlier the biological possibility of conceiving. It appears that the age of menarche is decreasing for both urban (Du Toit, 1987) and rural (Buga *et al.*, 1996) black girls. This is associated with increased nutrition during infancy and childhood (Gunston, 1986). White girls experience menarche earlier than do black girls (Channing-Pearce & Solomon, 1987).

Van Coeverden de Groot and Greathead (1987), in their study of 265 white females presenting at the Family Planning Association Teenage Clinic, found that the earlier the menarche, the higher the prevalence of coitus at a younger age, and the shorter the interval between menarche and the first coitus. Young age at first coitus, in turn, was associated with a higher prevalence of

multiple sexual partners, and a longer period of unprotected intercourse before attending the clinic than among those who first attempted intercourse at a later age.

Psychological problems

It appears that not many South African researchers have used an individually based, intra-personal model in their studies. This is in contrast to the American and British research where various angles, including prior sexual abuse (Butler & Burton, 1990; Rainey, Stevens-Simon & Kaplan, 1994), attitudes and locus of control (Plotnik, 1992), preconscious motivation (Adler & Tschann, 1993), undetected learning problems (Rauch-Elnekave, 1994), and autonomy-dependence conflicts (Oz, Tari & Fine, 1992) have been analysed. Some South African research has been conducted around moral development and self-esteem.

In terms of moral development there has been only one systematic study in the area (Oosthuizen, 1990), although the issue tends to creep into some researchers' writings with little theoretical substantiation (see, for example, Brits, 1989, and De Villiers, 1985). Oosthuizen (1990) administered the Interpersonal Relations Questionnaire and the Personal, Home, Social and Formal Relations Questionnaire to teenagers whom she divided into two groups, one displaying 'sexual disharmony', the other not. She concludes that a teenage woman who is at stages 3 and 4 of moral development on Kohlberg's stages is at risk for pregnancy. At stage 3 she is seeking approval and conforming to her peers while at stage 4 she is dutiful and respects authority, which in this case may be represented by her male partner. This finding is disputed in the American literature, however. Jurs (1984) found in his study of 75 teenage women that there were no significant differences in moral development when comparing pregnant and never pregnant girls, and responsible and non-responsible contraceptive users.

Turning to self-esteem, Brits (1989) and Pond (1987) provide case studies of pregnant teenagers, using a variety of projective tests and personality questionnaires. They conclude that these teenagers have a poorly defined sense of identity and low self-image and self-confidence; they (the pregnant teens) experience themselves as inadequate and inferior and are plagued by feelings of insecurity. Richter (1996), in her household survey, found that among the women of the sample, having had a child was associated with lower rates of self-acceptance. However, in these studies it is unclear whether the poor self-concept is precedent or antecedent to the pregnancy. Research in the United States has challenged the poor self-esteem/teen pregnancy association. Robinson and Frank (1994) found that there were no differences in self esteem between their sexually active versus non-active groups nor be-tween the pregnant and non-pregnant groups.

Family structure, relationships and parental style

The structure and organisation of a family is seen as contributing firstly to early sexual initiation, and secondly to teenage pregnancy. The type of structure which is most commonly problematised is the single-parent, female-headed household. Van Coeverden de Groot and Greathead (1987), in their sample of 265 white teenagers attending the teenage clinic, found that of those who had first experienced coitus at under 17 years, 37% came from single parent families, compared with 12% of those in whom coitus was delayed until over 19 years. Buga *et al.* (1996b), on the other hand, found, in their more representative sample of school girls, that there was no difference between sexually experienced girls and sexually inexperienced girls in terms of whether they were living with both parents or not.

Turning to teenage pregnancy itself, Boult and Cunningham (1992b) found, in their sample of 145 pregnant teenagers, that 35.9% lived with their single parent mothers, 18,6% with kinfolk, 4.1% with siblings only, 3.4% with single parent fathers. They conclude that family 'disorganisation' is associated with black teenage pregnancy. However, as no comparative data is provided it is not clear whether this conclusion is warranted (what is the family structure of the general population of the area?). Furthermore, living with a single parent does not necessarily mean that the family is 'disorganised'.

Some authors believe that relationships within the family affect the chances of a young woman conceiving. In her research Oosthuizen (1990) concludes that positive sexual values (seen, inter alia, as delaying sexual intercourse until after marriage) are inculcated in homes where the girl received affection, and was appreciated and accepted.

Communication patterns in the family have also been hypothesised as contributing to teenage pregnancy. Anagnostara (1988) found that adolescents coming from families with closed patterns of communication (as reported by the adolescent) are more likely to have what she sees as attitudes conducive to early child-bearing than those coming from families with open communication patterns.

Various researchers have drawn attention to parenting styles. Brits (1989) postulates that an autocratic or permissive upbringing can result in the teenager rejecting what she considers to be acceptable norms and values relating to sexuality. Blom (1989) studied 24 pregnant adolescent women resident at homes for unwed mothers, and a control group of girls from a high school in Bloemfontein, using a questionnaire on family functioning. She concludes that pregnant adolescents experience their families as significantly less functional than do non-pregnant teenagers. The dysfunctionality is restricted to poor control of behaviour by the parents, unclear ethical standards and social values within the family and less encouragement to autonomy. No differences were established in the structure of the family, affectional responsivity and communication patterns.

Peer influence

It is assumed by some researchers (e.g. Preston-Whyte & Zondi, 1989) that peer pressure plays a role in teenage pregnancy. However, Buga *et al.* (1996b) and Richter (1996) found that 20% and 10% respectively of their sexually experienced sample indicated that they initiated sexual activity because of peer pressure. Wood, Maforah and Jewkes (1996), in their qualitative study of 24 pregnant adolescents, indicate that peer pressure takes the form of exclusionary practices (e.g. sending sexually inexperienced teenagers away when having discussions concerning sexual matters).

A differentiation which is seldom made in the literature is between peer pressure to have sex and peer pressure to prove fertility by falling pregnant. This latter issue is dealt with more fully under the section on cultural factors.

Coercive sexual relations

Wood *et al.* (1996) found that violence emerged as a major issue in their qualitative study of 24 pregnant adolescents. Most of these teenagers indicated that they felt deceived, coerced or intimidated into having sex initially, and that intercourse continued to have violent features. They (the women) dealt with their experiences within the framework of women not having rights, and the paradoxical interpretation of violence as a male strategy to gain a female's love.

Quantitative studies indicate a somewhat less pervasive occurrence of coercion. Buga *et al.* (1996b) indicate that 28.4% of the sexually experienced respondents in their survey of rural school pupils first had sex because they were forced to by their partners. Richter (1996) found a similar ratio in her survey. However, the word 'force' has various connotations, from rape to verbal persuasion. It could be argued that responses to quantitative studies will tend to the more violent end of the scale, while qualitative studies will access more subtle dimensions of power relations.

Preston-Whyte and Zondi (1992) and Mfono (1990) indicate one of the dynamics operative in sexual relations is that boys and young men are under pressure to demonstrate that they are sexually capable. Mfono (1990) believes that boys identify with the *isoka* (Zulu), *ulewu* (Xhosa), or playboy whose amorous activities have always been lauded by society. Furthermore sexual responsibility is not enforced as boys are seldom pressurised by their families to take responsibility for their out-of-wedlock progeny, or if they are, this extends to the payment of damages only.

Socio-economic status

A relatively strong association has been made in the South African literature between socio-economic status and teenage pregnancy. However, there is little systematic research into this association, and that which has been done is fraught with problems.

The following are examples of research in which a teenage pregnancy/poor socio-economic status association has been made although the data does not necessarily point in that direction. Petersen (1996) presents a study of 122 pregnant teenagers presenting at the Paarl-East Day Hospital. The majority lived in sub-economic housing and farm houses, characterised by crowding and lack of privacy. She concludes that poverty and a low educational status play a large role in unmarried teenage pregnancies. However, this conclusion is unwarranted as no comparative sample is provided (perhaps the majority of people presenting at this hospital live under these conditions). Boult (1992) presents four case studies of teenage multiparas. All have histories of low socio-economic status and a high level of illiteracy. She concludes that these teenagers are 'perpetuators of the cycles of poverty' (p. 17). While this may be true for her small sample, the implication is that it extends to all teenage pregnancies. De Villiers and Clift (1979) conducted a survey of 120 'non-white' pregnant adolescents in Paarl. They conclude that the higher the income of the parents, the fewer pregnancies. However, they do not take into account the fact that their sample may be skewed as those teenagers in higher income brackets may present at private clinics. De Villiers and Clift's (1979) conclusion epitomises the tendency to blame the poor for their situation. They write that parents in lower socio-economic groups have little influence over or interest in their teenage daughters, thus leading to the higher rates of teenage pregnancy.

The pervasiveness of the teenage pregnancy/poverty association is seen in Boult and Cunningham's (1992) work. They found that in their sample of 145 black teen mothers the average number of rooms per dwelling was 3.15 with the mean number of people per dwelling being 6.8. On the basis of this they make an association between teenage pregnancy and poverty. However this is contradicted by their later statement that the average density figures compiled by the Urban Foundation for the area correspond to those quoted above. This must surely mean that the teen mothers come from fairly 'average' homes for the area, rather than poorer homes.

Mkhize (1995) takes a slightly different tack on the debate. He assumes that there is an association between poverty and teenage pregnancy, and then goes on to try to explain some of the contributory factors. In the poorer urban areas he believes that there is a growing number of teenagers selling sex to older men, especially migrant workers living in hostels. The teenager establishes a bargaining role with the male, but is in a poor bargaining position, and may thus accept risks such as falling pregnant. In rural areas, he states, children start attending school late, and often take on a babysitting role early; this prepares them for early motherhood.

There are two studies that have systematically researched the poverty/teenage pregnancy association. Craig and Richter-Strydom (1983a, 1983b) compared the demographic characteristics of 1 311 school children coming from a wide range of socio-economic backgrounds with those of 212 pregnant teenagers presenting at two urban clinics. They conclude that the pregnant girls were more likely to come from families of the lower socio-economic status group and from families which were less cohesive and organised (defined as less frequent church attendance, and more one-parent households). The question arises, however, whether this conclusion is valid for the pregnant girls per se, or merely for young women presenting at these particular clinics. The authors state that their school sample comes from a wide variety of socio-economic backgrounds. It is not so clear whether people from a wide variety of socio-economic backgrounds attend the two urban clinics surveyed.

Cameron, Richter, McIntyre, Dlamini and Garstang (1996) compared young teenage (less than 16) with older teenage (17 to 20) and older women (20 to 29) primigravidas in terms of socio-economic indicators. A significantly greater percentage of younger teenagers lived in informal housing than mothers in the age range 17 to 29 years. However, in terms of other indicators (crowding, access to commodities such as radio, telephone, refrigerator, etc., and toilet facilities) there was little difference between the younger and older mothers. In fact the younger teenagers had significantly greater access to television than did the older mothers.

It appears that the association between poor socio-economic status and teenage pregnancy is far from conclusive. Researchers in the United States are still grappling with the issue, and it is recognised that there is a racial element to the debate (Henly, 1993; Hayward, Grady & Billy, 1992). What is missing from the international and local literature is an analysis of the ideological effects of the association, which is commonly assumed by many researchers. This position allows for the poor to be blamed for their poverty (they have such high birth-rates, especially among the teenagers), and for the 'disaster' of teenage pregnancy to be contained within the safe parameters of happening to the poor.

Cultural factors

The emphasis on cultural factors takes a couple of forms. Firstly, the breakdown of 'traditional' values and sexual control measures is seen as contributing to sexual behaviour conducive to unmarried teenage pregnancy. Secondly, the cultural value placed on fertility is believed to encourage teenage pregnancy.

(1) *Breakdown of tradition*

The 'permissiveness' of today's society is seen as problematic by some researchers. In the words of Seabela (1990), it 'operates as an independent variable that leads to the occurrence of teenage unwed motherhood as the dependent variable' (p. 7). In this view, traditional culture which controlled sexual behaviour

amongst adolescents has been broken down by a process of acculturation. This is a position reflected in studies elsewhere in Africa (Kulin, 1988) and in the United States (Reynoso, Felice & Shragg, 1993).

Various authors report on the sexual control practices of traditional (mostly African) society. The picture painted is one of unproblematic, unconflictual uniformity. The following are features of traditional African society reported on:

* During initiation ceremonies, adolescents were instructed about sexual matters (Bodibe, 1994; Kau, 1989; Magwentshu, 1990; Setiloane, 1990);
* A certain amount of sex play (mostly intercrural sex) was expected and allowed after initiation(Du Toit, 1987; Mfono, 1990; Ntombela, 1992);
* Vaginal inspection was performed to ensure virginity in young women (Kau, 1989; Magwentshu, 1990); a special token was sent to the parents of the young woman if she was found to be a virgin after marriage (Magwentshu, 1990);
* Marriage was controlled and supervised by kinfolk (Seabela, 1990); early marriage was encouraged (Setloane, 1990); and
* Peer groups played a large role in sexual education and control (Craig & Richter-Strydom, 1983a, 1983b).

This idealised picture is seen as being broken down by a number of factors:

* Urbanisation and industrialisation has led to the decline of institutions such as the initiation school and vaginal inspection (Bodibe, 1994; Magwentshu, 1990; Mkhize, 1995); the migrant labour system means that men whose partners live in the rural area may befriend schoolgirls (Du Toit, 1987);
* Formal schooling has arrested education from the hands of parents who are now seen as ignorant and uneducated by their children (Mkhize, 1995);
* There is an erosion of the patriarchal structure of the family (Mfono, 1990) as well as the traditional respect for elders (Bodibe, 1994);
* The influence of Western culture has led to psychological isolation (Anagnostara, 1988);
* Christianity brought with it a philosophy of chastity, leading to a shift of emphasis from intercrural sex to abstinence (Anagnostara, 1988; Ntombela, 1992).

Harilal (1993) and Amod and Schmukler (1986) take a similar approach in terms of Indian culture. Amod and Schmukler (1986), for instance, investigated differences in sexual attitudes between Indian adolescents from traditional, transitional and modern backgrounds. They defined traditionalism/modernism in terms of whether the father of the adolescent was born in India, the level of education of the father (the higher, the more modern), the role of grandparents in the home (the less involved, the more modern), and the extent to which religious laws and traditions were upheld in the home. They found that the modern adolescents were significantly more permissive in terms of their sexual attitudes than the traditional adolescents.

The problem with the view of culture and tradition adopted by the authors quoted above is that it treats them as static entities. A cross-section of practices at a certain time is taken and held forward as 'tradition'. The result of this stultified view is that tradition can only be seen either remaining intact or as disintegrating. There is no room for seeing culture within a framework of dynamic, fluid change in which there is a continual process of integration and exclusion of various practices. Instead, people are seen as victims whose 'adequate' traditions are either re-placed by nothing or by the 'inappropriate' Western, urban, Christian tradition.

Preston-Whyte and Louw (1986) and Preston-Whyte and Zondi (1989) are the only South African researchers in this field who view culture in a dynamic way. They discuss the ways in which cultural traditions used in the past are adapted to cope with the contemporary situation. Preston-Whyte and Louw (1986), for ex-ample, provide a case study of the mechanisms used to contain and cope with the crisis precipitated by teenage pregnancy. These include the payment of damages and a ceremony of purification (*umgezo*).

(2) *The cultural value placed on fertility*

This hypothesis states that because there is a high cultural value placed on fertility, and because marriage and birth have become separated, young women are more prone to conceiving early. Preston-Whyte and Zondi (1989) state that most of the young mothers they interviewed said that it was important not to get the reputation of being infertile. They believed that bearing children is an essential part of being a woman and achieving success as a woman. Anagnostara (1988) posits that the breakdown in the practice of supplying substitute child bearers should the wife prove to be infertile contributes to the problem as it results in men wanting assurances of fertility before marriage.

However, this reading of the situation is contested in other research reports. Richter (1996), in her household survey of the general teenage population, found that only 12% of the respondents wanted to have a baby in the next year or two; of these the major reason was indeed the desire to prove fertility. However, most did not want a baby, citing reasons such as a lack of preparedness or a desire to complete studies. Craig and Richter-Strydom (1983a; 1983b), in their survey of school children, found a gendered discrepancy in this regard. The girls did not regard proving their fertility as important, while 30% of the boys agreed with the statement 'Boys will only marry a girl if she has proved her fruitfulness'.

Health services

Schoeman (1990) and Du Toit (1987) point out that until recently the family planning programme in South Africa has concentrated its efforts on older women, or on women who are already mothers. Preventive efforts concerning youngsters were only initiated from 1983. These services are delivered through schools, the nursing staff of health centres and clinics, the mass media and advisors. Schoeman (1990) delineates some of the issues impeding the effective functioning of sexuality education services in clinics. These include: an inadequate budget; insufficient staff with insufficient time; staff not being specifically designated and trained for the job; too little participation from the teenage population; a lack of support from surrounding communities; a lack of co-operation between schools, clinics, and Youth Health Centres; and adolescent services often forming part of over-crowded adult family planning services. Sigwaza *et al.* (1995) point out that clinic-based services are, in general, accessible only to motivated and informed teenagers; in rural areas the situation is exacerbated by the fact that the majority have to travel long distances to clinics.

Teenagers have indicated in various studies that they do not have easy access to contraceptive clinics (Preston-Whyte, 1991; Setiloane, 1990a). Misunderstandings contribute to this in that some teenagers believe that the clinics are only for married adults (Preston-Whyte, 1991).

Flisher, Roberts and Blignaut (1992) discuss what they call missed opportunities for contraception counselling. Of their sample of 225 youths attending day hospitals in the Cape Peninsula, 43% did not receive any intervention concerning contraception but would have liked to have received such information. They recommend that all youth attending primary health care facilities should routinely be offered contraception counselling.

Rational choice

As indicated in Part 1 of this article, Preston-Whyte and colleagues (Preston-Whyte & Allen, 1992; Preston-Whyte and Zondi, 1991, 1992) present the revisionist argument (see Part 1 for explication of the revisionist argument) in the South African context. They postulate that in the African community

> unwed [teenage] pregnancies, or at least the neglect of the easily available measures to avoid conception, represent fairly rational reactions to a number of personal and domestic dilemmas faced by these teenagers (Preston-Whyte & Zondi, 1992, p. 226).

The basic message that teenagers receive in urban African communities, they say, is that pre-marital pregnancy leads neither to unpopular marriage, nor to ostracism from the family home. It does not threaten the support that they receive from their parents, and they are seldom forced to leave school for more than the academic year. In fact, there is a chance of increased marriageability because of the proof of fertility. Furthermore, there are a number of role models of successful, respected, single parent women in the urban African community. Childbirth confers on the girls the valued status of motherhood, and it is the pathway to adulthood in cases where marriage is delayed by lack of money, suitable accommodation or the necessity of amassing bride wealth. Therefore, 'there is little incentive to strive for the achievement of norms and values which are, after all, largely middle-class, and in the South African context, white' (Preston-Whyte & Allen, 1992, p. 215).

Conclusion

In this article South African research concerning the 'causes' of teenage pregnancy has been reviewed. The literature reveals a wide variety of hypotheses, ranging from individually based factors such as risk-taking behaviour, to socially based issues such as socio-economic status, to revisionist arguments. The paper is concluded with a generalised criticism of the South African research, and a discussion of the implications in terms of policy decisions.

One of the major methodological problems facing South African research is the lack of comparative or control groups in quantitative studies. A number of conclusions are reached on the basis of results that do not clearly indicate whether the group of pregnant teenagers being studied is in any way different (or similar) to a matched never pregnant group of teenagers. Of course, even this methodological requirement is somewhat problematic as some of the teenagers in such a comparison group may yet conceive before leaving adolescence. There are two potential ways around this. One is to cease using teen-age as a monolithic category, and to match research and comparison groups by age (e.g. this research tells us about the differences between pregnant and never-pregnant 16-year-old women). The second is to use retrospective studies in which the samples are adults. Of course, there are a host of problems contingent on this type of research as well, in particular the need for recall.

The samples used in South African research are problematic for a number of reasons. Firstly, they are mostly skewed to the upper limit of teenage. Secondly, many are convenience samples with the accompanying lack of generalisability. Surveys conducted in schools, while being more representative than clinic-based samples, do not include absentees, and out-of-school adolescents.

There are no longitudinal studies, meaning that variables such as self-esteem and family functioning are measured only once. As Breakwell (1993) points out, this is problematic in terms of what she calls 'reactive' variables (such as self-esteem). Furthermore, there are no multivariate analyses of data. Single variables are examined at a time, obscuring the fact that variable such as, say, self-concept and family functioning, are themselves correlated.

Many of the questions asked are sensitive and may lead to under- or over-reporting. This links with a point made by Breakwell (1993), in which she argues that researchers rarely explore the effects of the research itself on the participants. This is a particular problem where respondents become aware that they are being studied because their pregnant or parental status.

There is a paucity of research in South Africa and internationally on the male counterpart in teenage pregnancy. What research is conducted in South Africa concentrates on the woman's perception of the relationship within which conception took place. The result of this skewed gender emphasis is that teenage women's behaviour is problematised, with the strong implicit suggestion that preventive strategies should be focused on women. However, nearly all American pregnancy prevention research indicates that the attitudes and behaviour of females are more conducive to pregnancy prevention than those of males (Meyer, 1991).

This leads us finally to policy issues. Clearly, research on the 'causes' of teenage pregnancy aims in some way to influence social interventions, and eventually to feed into policy decisions concerning these. The extent to which this has happened is unclear. There is no South African literature available concerning policy issues surrounding teenage pregnancy and parenting. Yet teenage pregnancy is very much a political issue. As Rhode (1993) points out in the United States, the 'problem' and its 'solution' involves chiefly moral and fiscal concerns for conservatives, while for liberals it involves primary health and socioeconomic status. If the research on teenage pregnancy in South Africa is to constructively contribute to intervention strategies and policy debates it needs to (1) overcome the methodological problems mentioned above, and (2) recognise the ideological and political implications of the research conducted.

Note

1. Although not stated, the reader is led to believe that the authors tapped into the knowledge that the pregnant group had before conception. This is an obvious requirement for the comparison to be sensible, as the occurrence of pregnancy would be a variable which would most probably have increased the current knowledge of the pregnant group.

Acknowledgements

I gratefully acknowledge the contribution of many colleagues who sent me information, references, articles and reports in response to my letters. Thanks also to Dr Kevin Durrheim who commented on an earlier version of this article.

References

Adler, N.E. & Tschann, J.M. (1993). Conscious and preconscious motivation for pregnancy among female adolescents. In

A. Lawson & D.L. Rhode (Eds), *The politics of pregnancy: adolescent sexuality and public policy* (pp. 144–158). New Haven & London: Yale University Press.

Amod, Z. & Shmukler, D. (1986). Sexual attitudes and behaviour of Indian South African students. *South African Journal of Psychology*, **16**, 21–26.

Anagnostara, A. (1988). The construction and evaluation of a scale for assessing the sexual attitudes of black adolescents. Unpublished master's thesis, Rand Afrikaans University.

Bam, N. (1994). An analysis of sexuality education programmes presented in secondary schools. Unpublished master's thesis, Rand Afrikaans University.

Bailie, R. (1991). 'We have it, we sit on it': a formative evaluation of a high school sexuality education programmes. Unpublished master's thesis, University of Cape Town.

Blom, S.M. (1989). 'n Ondersoek na die gesinsbelewing deur ongetroude swanger adolessente. Unpublished master's thesis, University of the Free State.

Bodibe, C.R. (1994). Investigating the sexual knowledge, attitudes and behaviour of black adolescents. Unpublished doctoral thesis, University of South Africa.

Boult, B. E. (1992). Children having children: black adolescent multiparas. *Salus*, **14**, 16, 17, 23.

Boult, B.E. & Cunningham, P.W. (1992). Black teenage pregnancy: a socio-medical approach. *Medicine and Law*, **11**, 159–165.

Breakwell, G.M. (1993). Psychological and social characteristics of teenagers who have children. In A. Lawson & D.L. Rhode (Eds), *The politics of pregnancy: adolescent sexuality and public policy* (pp. 159–173). New Haven & London: Yale University Press.

Brits, W.J. (1989). Die ontoereikende verwerkliking van sosiopedagogiese essensies as aanleiding tot tienerswangerskappe. Unpublished master's thesis, University of Pretoria.

Buga, G.A.B., Amoko, D.H.A. & Ncayiyana, D.J. (1996a). Sexual behaviour, contraceptive practice and reproductive health among school adolescents in rural Transkei. *South African Medical Journal*, **86**, 523–527.

Buga, G.A.B., Amoko, D.H.A. & Ncayiyana, D.J. (1996b). Adolescent sexual behaviour, knowledge and attitudes to sexuality among school girls in Transkei, South Africa. *East African Medical Journal*, **73**, 95–100.

Butler, J.R. & Burton, L.M. (1990). Rethinking teenage childbearing: is sexual abuse a missing link. *Family Relations*, **39**, 73–80.

Caldas, S.J. (1993). Current theoretical perspectives on adolescent pregnancy and childbearing in the United States. *Journal of Adolescent Research*, **8**, 4–20.

Cameron, N., Richter, L., McIntyre, J., Dhlamini, N. & Garstang, L. (1996). Progress report: Teenage Pregnancy and Birth Outcome in Soweto. Unpublished report: University of the Witwatersrand.

Carolissen, R.L. (1993). The social context of adolescent pregnancy: the case of Mamre. Unpublished master's thesis, University of Cape Town.

Channing-Pearce, S.M. & Solomon, L. (1987). Pubertal development in black and white Johannesburg girls. *South African Medical Journal*, **71**, 22–24.

Chilman, C.S. (1985). Feminist issues in teenage parenting. *Child Welfare*, **64**, 225–234.

Craig, A.P. & Richter-Strydom, L.M. (1983a). Unplanned Pregnancies among urban Zulu school children: a summary of the salient results from a preliminary investigation. *The Journal of Social Psychology*, **121**, 239–246.

Craig, A.P. & Richter-Strydom, L.M. (1983b). Unplanned Pregnancies among urban Zulu schoolgirls. *South African Medical Journal*, **63**, 452–455.

De Villiers, V.P. & Clift, H.E. (1979). Tienderjarige swangerskappe – 'n sosio-ekonomiese probleem met bose kringloop gevolge. *Social Work/Maatskaplike Werk*, **15**, 195–199.

De Villiers, V.P. (1985). Tienerjarige swangerskap in die Paarl-hospitaal. *South African Medical Journal*, **67**, 301–302.

Du Toit, A. (1983). Die taak van maatskaplike werk ten opsigte van die ongehude moeder as enkelouer. Unpublished honours thesis, Potchefstroom University.

Fine, M. (1988). Sexuality, schooling and adolescent females: the missing discourse of desire. *Harvard Educational Review*, **58**, 29–53.

Flisher, A.J., Roberts, M.M. & Blignaut, R.J. (1992). Youth attending Cape peninsula day hospitals: sexual behaviour and missed opportunities for contraception counselling. *South African Journal of Medicine*, **82**, 104–107.

Flisher, A.J., Ziervogel, C.F., Chalton, D.O., Leger, P.H. & Robertson, B.A. (1993). Risk-taking behaviour of Cape peninsula high-school students. Part III: sexual behaviour. *South African Medical Journal*, **83**, 495–497.

Gordon, D.E. (1990). Formal operation thinking: the role of cognitive-developmental processes in adolescent decision-making about pregnancy and contraception. *American Journal of Orthopsychiatry*, **60**, 346–356.

Gunston, K.D. (1986). Age of menarche, standard of education and early adolescent pregnancy. *South African Medical Journal*, **69**, 539.

Hanson, S.L., Myers, D.E. & Ginsburg, A.L. (1987). The role of responsibility and knowledge in reducing teenage out-of-wedlock childbearing. *Journal of Marriage and the Family*, **49**, 241–256.

Harilal, J.R.J. (1993). An investigation into the need for sex education for Indian secondary school pupils. Unpublished master's thesis, University of South Africa.

Hayward, M.D., Grady, W.R. & Billy, J.O.G. (1992). The influence of socioeconomic status on adolescent pregnancy. *Social Science Quarterly*, **73**, 750–772.

Henly, J.R. (1993). The significance of social context: the case of adolescent childbearing in the African American community. *Journal of Black Psychology*, **19**, 461–477.

Jorgensen, S.R. (1991). Project taking charge: an evaluation of an adolescent pregnancy prevention program. *Family Relations*, **40**, 373–380.

Jurs, J. (1984). Correlation of moral development with use of birth control and pregnancy among teenage girls. *Psychological Reports*, **55**, 1009–1010.

Kau, M. (1988). Sexual behaviour and contraceptive use by adolescent pupils in the Republic of Boputhatswana. *Curatonis*, **11**, 9–12.

Kau, M. (1989). Sexual behaviour and knowledge of adolescent males in the Molopo region of Boputhatswana. Unpublished master's thesis, Fort Hare University.

Kulin, H.E. (1988). Adolescent pregnancy in Africa: a programmatic focus. *Social Science and Medicine*, **26**, 727–735.

Luster, T. & Small, S.A. (1994). Factors associated with sexual risk-taking behaviors among adolescents. *Journal of Marriage and the Family*, **56**, 622–632.

Magwentshu, B.M. (1990). A critical analysis of sex education knowledge and behaviour of teenagers in Soweto high schools: a nursing perspective. Unpublished master's thesis, University of South Africa.

Mahomed, K. & Masona, D. (1991). Adolescent pregnancy – A prospective survey of contraceptive knowledge and reproductive behaviour. *Central African Journal of Medicine*, **37**, 316–321

Makhetha, T.E. (1996). Adolescent pregnancy and its birth outcome among adolescents aged 13 to 16 in Soweto, Gauteng region.

Unpublished master's thesis, University of the Witwatersrand.
Mayekiso, T. & Twaise, N. (1993). Assessment of parental involvement in imparting sexual knowledge to adolescents. *South African Journal of Psychology*, **23**, 21–23.
Meyer, V.F. (1991). A critique of adolescent pregnancy prevention research: the invisible white male. *Adolescence*, **26**, 217–222.
Mfono, Z. (1990). Parents and the teenage pregnancy. *Salus*, **13**, 6–8.
Mkhize, Z.M. (1995). Social needs of teenage mothers in the rural communities of Ongoye and Enseleni districts. Unpublished master's thesis, University of Zululand.
Mogotlane, S. (1993). Teenage pregnancy: an unresolved issue. Unpublished report, Department of Nursing Sciences, Medical University of Southern Africa.
Mosidi, E.D. (1992). Sexuality in pregnant adolescents attending a clinic south-west of Johannesburg. Unpublished master's thesis, University of Natal.
Nicholas, L.J. (1993). Intra-familial communication about contraception: a survey of black South African freshmen. *International Journal for the Advancement of Counselling*, **16**, 291-300.
Nicholas, L.J. (1994). *Sex counselling in educational settings.* Johannesburg: Skotaville.
Nicholas, L.J., Durrheim, K. & Tredoux, C.G. (1994). Lying as a factor in research on sexuality. *Psychological Reports*, **75**, 839–842.
Ntombela, B.B. (1992). The perception of pregnancy of the black primigravida in the Umlazi area of KwaZulu. Unpublished master's thesis, University of South Africa.
Olivier, L. (1987). *Sex and the South African woman.* Johannesburg: Lowry Publishers.
O'Mahoney, D. (1987). Schoolgirl pregnancies in Libode, Transkei. *South African Medical Journal*, **71**, 771–773.
Oosthuizen, V. (1990). The establishment of sexual values in the teenage girl. Unpublished master's thesis, University of Pretoria.
Oz, S., Tari, A. & Fine, M. (1992). A comparison of the psychological profiles of teenage mothers and their nonmother peers: II. Responses to a set of TAT cards. *Adolescence*, **27**, 357–367
Page, N.P. (1990). Effectiveness of a sex education programme in changing sexual knowledge, attitudes and behaviour of black adolescents. Unpublished master's thesis, University of the Witwatersrand.
Peltzer, K. & Likwa, R. (1992-93). Psychosocial aspects of unwed adolescent pregnancy in Lusaka, Zambia. *International Journal of Mental Health*, **21**, 50–58.
Petersen, R. (1996). 'n Studie oor tienerswangerskappe in Paarl- Oos met spesiale verwysing na sosio-ekonomiese faktore. Unpublished master's thesis, University of the Western Cape.
Plotnick, R.D. (1992). The effects of attitudes on teenage premarital pregnancy and its resolution. *American Sociological Review*, **57**, 800–811.
Pond, T.S. (1987). A psychodynamic approach to the adolescent unmarried mother. Unpublished master's thesis, University of Pretoria.
Preston-Whyte, E. (1991). Teenage pregnancy in selected coloured and black communities. Unpublished report, Human Sciences Research Council, Pretoria.
Preston-Whyte, E. & Allen, J. (1992). Teenage pregnancy in the coloured community. In S. Burman & E. Preston-Whyte (Eds), *Questionable issue: illegitimacy in South Africa* (pp. 208–225). Cape Town: Oxford University Press.
Preston-Whyte, E. & Louw, J. (1986). The end of childhood: an anthropological vignette. In S. Burman & P. Reynolds (Eds), *Growing up in a divided society: the contexts of childhood in South Africa* (pp. 360–92). Evanston: Northwestern University Press.
Preston-Whyte, E. & Zondi, M. (1989). To control their own reproduction: the agenda of black teenage mothers in Durban. *Agenda*, **4**, 47–68.
Preston-Whyte, E. & Zondi, M. (1991). Adolescent sexuality and its implications for teenage pregnancy and AIDS. *South African Journal of Continuing Medical Education*, **9**, 1389–1394.
Preston-Whyte, E. & Zondi, M. (1992). African teenage pregnancy: whose problem? In S. Burman & E. Preston-Whyte (Eds), *Questionable issue: illegitimacy in South Africa* (pp. 226–246). Cape Town: Oxford University Press.
Rainey, D.Y., Stevens-Simon, C. & Kaplan, D.W. (1995). Are adolescents who report prior sexual abuse at higher risk for pregnancy? *Child Abuse & Neglect*, **19**, 1283–1288.
Rauch-Elnekave, H. (1994). Teenage motherhood: its relationship to undetected learning problems. *Adolescence*, **29**, 91–103.
Reynoso, T.C., Felice, M.E. & Shragg, G.P. (1993). Does American acculturation affect the outcome of Mexican-American teenage pregnancy? *Journal of Adolescent Health*, **14**, 257–261.
Richter. L.M. (1996). A survey of reproductive health issues among urban black youth in South Africa. Unpublished report: Medical Research Council, Pretoria.
Robinson, R.B. & Frank, D.I. (1994) The relation between self-esteem, sexual activity, and pregnancy. *Adolescence*, **29**, 27–35.
Rhode, D.L. (1993). Adolescent pregnancy and public policy. In A. Lawson & D.L. Rhode (Eds), *The politics of pregnancy: adolescent sexuality and public policy* (pp. 301–335). New Haven & London: Yale University Press.
Schoeman, M.N. (1990). Sexuality education among Black South African teenagers: what can reasonably be expected? *Curationis*, **13**, 13–18.
Seabela, J.R. (1990). Teenage unwed motherhood amongst blacks: a sociological study. Unpublished master's thesis, University of South Africa.
Setiloane, C.W.M. (1990). Contraceptive use amongst urban and rural youths in South Africa: a comparative study. *Curationis*, **13**, 44–48.
Seydel, K. (1992). The influence of sex education on sexual knowledge and attitudes of sexually-active adolescent schoolgirls. Unpublished master's thesis, University of Stellenbosch.
Sigwaza, T., Ross, S., Mfeka, X., Dlamini, S., Ngubane, S. & Philpott, H. (1995). Draft report on sexual behaviour, knowledge, attitude and practice of contraception in the Nhlangwini community. Unpublished report, Centre for Health and Social Studies and Planned Parenthood Association, Hilton.
Trad, P.V. (1993). The ability of adolescents to predict future outcome Part 1: assessing predictive abilities. *Adolescence*, **28**, 533–555.
Van Coeverden de Groot, H.A. & Greathead, E.E. (1987). The Cape Town teenage clinic. *South African Medical Journal*, **71**, 434–436.
Van der Elst, E. (1993). A sexuality education training programme for guidance counsellor trainees: a qualitative inquiry and evaluation. Unpublished master's thesis, University of Cape Town.
Weitsz, G.H. (1990). Towards a school-based parenting programme on early adolescent sexuality. Unpublished doctoral thesis, Rand Afrikaans University.
Wood, K., Maforah, F. & Jewkes, R. (1996). Sex, violence and constructions of love among Xhosa adolescents: putting violence on the sexuality education agenda. Unpublished report: Medical Research Council, Cape Town.