Psychiatric and Demographic Factors that Affect Pregnancy Outcome

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Abstract

Objectives: To explore the relative importance of predominantly psychological factors influencing the full range of pregnancy outcomes.

Methods: The sample consisted of 375 unselected people: 312 women and 63 men, 30% from a psychiatric practice, the remainder were healthy and above-average intelligent trainees for group counselling. The self-administered questionnaire was comprised of grids to show all pregnancy outcomes of the subject and the subject’s mother and visual analogue scales for responses to past and present factors affecting their physical and mental health. RESULTS: Compared to Statistics Canada the demographic variables of these subjects indicate that they are a reasonably representative sample. A step-wise regression show the variables most closely associated to the subject having a full term normal birth weight infant for their first pregnancy were: 1) their mother having no pregnancy loss, 2) the number of normal births of the subject’s mother, 3) the subject was not sexually abused, 4) her mother did not abort her first pregnancy, 5) there was little chance that she would have been aborted herself. The factors most closely associated with an abortion of the first pregnancy were: 1) being emotionally or intellectually neglected as a child, 2) the subjects mother had at least one abortion, 3) not being able to grieve their mother’s pregnancy loss, 4) being sexually abused as a child, 5) having a statistically high chance of being aborted themselves, 6) being a possible pregnancy loss themselves. Marital status, number of children, number of hospitalizations, level of education, were not statistically significantly. There was a statistically high correlation between the outcome of the woman’s first pregnancy and her second pregnancy, particularly with respect to normal, full term births, miscarriages and abortions. If the first pregnancy is aborted, there is a 0.65 correlation to the total number of abortions throughout all the pregnancies. If the first pregnancy is a normal birth weight child, there is a 0.49 correlation with the total number of subsequent normal birth weight children.

Conclusion: Although it is often assumed that demographic and health variables determine the decision to abort, we found that childhood mistreatment and family history were the closest predictors. The stepwise regression analyzes of our data indicate that of the psychological variables we considered, the important determinants of pregnancy outcome are: emotional neglect in childhood, sexual abuse in the woman’s background, whether she is supported by her partner, the outcome of her mother’s pregnancy, whether or not she is the survivor of her mother’s pregnancy losses, the outcome of her previous pregnancies. The best predictor of the outcome of the second pregnancy is the outcome of the first pregnancy for the subject and for her mother.

Introduction

Like a giant waking out of a deep sleep, the world is gradually becoming aware of the fact that it is struggling with a probable population implosion. As it does so there is increasing political and medical concern regarding those factors that determine conception and pregnancy outcome.

Toward the end of the 20th century, some experts were still claiming the need to control the population explosion.(1) The concerns that arise from these poorly analyzed trends were the proportion of aging population, the rapid consuming of resources and slow economic development. “Overall, for China to achieve sustainable development it has to continue its implementation of the family planning program and the establishment of old age support institutions across the country.”(2) “We need more contraceptive technologies.”(3) Yet it became increasingly clear that there was no direct correlation between better economic development and declining population. Some began to suspect there was an inverse relationship between declining population and an improving economy. “We may observe different economic growth rates in countries with the same rate of population growth.”(4)
Quite suddenly, in the 21st century, the population implosion became a concern for economic reasons. Nordic countries, European countries and Singapore began using population growth incentives. The decline in fertility is now a worldwide phenomenon. “In the past 50 years the birth rates have decreased by more than half in both industrialized and developing countries.”(5) By 2000, “nearly half the world’s population lived in countries with fertility rates at or below replacement level, and nearly all countries will reach low fertility in the next two decades.”(6) It began occurring to people that with diminishing demand for houses, there is less demand for all the workmen that construct houses, and teachers, and pediatricians, etc. The more governments looked into the problem, the more anxious they became. People who were once considered ridiculous for predicting this event were now being consulted as to how best to reverse it. “The developed world’s population is aging due to trends of increased life expectancy and decreased fertility rates. These trends are predicted to increase demand on long term care services.” (7)

**Literature Review**

**Family and Friend Support**

There are contradictory findings in many studies on the effects of various kinds of social support during pregnancy and delivery. Casper and Hogan (8) found that although access to their family for young mothers did not affect their pre- and postnatal health practices, if they lived with a sexual partner or husband, they were more likely to seek prenatal care and avoid the use of alcohol during pregnancy. Curiously, being near their family seemed to diminish the probability of breastfeeding. A study of women in high stress found that family support did not provide a buffering effect. (9) However, in this study, family support, including friend and partner support, for the teenage mothers provided more favourable outcomes for both the infant and the teenage mother, regardless of the level of life stress. The beneficial effects were seen particularly on birth weight and the level of depressive symptomatology.

Another study (10) found that for Black women, social support from the woman’s partner or mother accounted for 33% of the variance in gestation complications and 14% in the variance of prolonged labour or caesarean section. For Caucasian women, social support seemed to increase the probability of poor pregnancy outcomes and substance abuse, probably indicating that a social network might reinforce negative health practices. A study of 548 rural pregnant women (11) found that those who reported no person or one reliable helper in their third trimester had higher rates of poor outcome, i.e. neo-natal death, transfer to and stay in neo-natal intensive care, lower birth weight, and lower Apgar scores, than those with two or more helpers. This seemed to be particularly true if there was no male partner, although that variable was confounded with socio-demographic risk and lower education. Boyce, Schaefer and Uitti (12) found that support from the baby’s father was associated with a positive affect but this study has been criticised because the evidence provided in relation to the relevance of social support for adaptation was equivocal. Apart from the quality of the pregnancy and the health of the newborn, it appears that partner support is an important variable determining the outcome of a pregnancy. Baker and Khasiani (13) found that for women in Kenya, being unmarried and unemployed contributed to the decision to abort.

The effects of various kinds of support and encouragement during labour seem to have differing effects, depending on how outcome is measured. Chalmers and Wolman (14) found that support given by trained or lay untrained female supporters had the most consistently positive effect on obstetric and psycho-social outcome for women in South Africa. Their studies of father support yielded contradictory findings. Kennell et al. (15) found that the presence of a supportive companion during labour and delivery shortened labour and reduced the need for caesarean section. Analysing the results from 412 healthy nulliparous women in labour in a USA hospital, Kennell et al. also found that continuous support significantly reduced the rate of caesarean section and forceps delivery compared to a control group.

Major, Meuller and Hildebrandt (16) found that women who were accompanied by their partner to the abortion clinic coped less well immediately after the abortion than women unaccompanied by their partner. Tamburrino et al. (17) provided surveys to a sample of 150 women, 71 of which were returned. They found that in addition to multiple abortions, risk factors for post-abortion dysphoria were poor pre-morbid health, psychiatric illness, lack of family support, ambivalence, and a feeling of being coerced into an abortion.

**Socio-economic and Demographic Factors**

There don’t appear to be any major differences between different countries regarding the impact of socio-economic and demographic factors related to
pregnancy outcomes. In Denmark, Hanson et al (18) found most of the women who were studied said they did not want children without being in a stable relationship “Socio-economic distress is not a significant factor in a woman’s choice to have an abortion, but ambition, convenience and a stable relationship are.”

Although economy and housing were not reasons for choosing abortion, occupation and education were correlated with the decision to abort.

Social, Partner and Medical Support

Guilbert (19) studied 2771 women at family planning clinics in Quebec. Of their 18 dependent variables they found 10 contributed 9.4% of the total variance in gestational age of the fetus at delivery. Not having a significant relationship with a regular partner or having a partner who had a vasectomy were 2 of these 10. Being ambivalent about the decision and having a delay between the first consultation and the abortion were also significant variables. Freeman (20) followed 231 inner city black teens and found 81% chose the pregnancy outcome their mother supported. Ortiz (21) compared 21 Puerto Rican teens who carried to term and 22 who aborted. Girls in the “carried” group were more significantly influenced and supported by family and friends than those in the “aborted” group. The most influential in the “carried” group were mothers, brothers, boyfriends, best friends, while the most influential in the “aborted” group were sisters.

If a family member or partner is unable to be present and supportive during pregnancy and delivery, the question is, would substitutes be beneficial? Olds et al (22) states there was accumulating evidence that the problems of low birth weight, child abuse and neglect, childhood injuries, unattended closely spaced pregnancies can be reduced with comprehensive programs of prenatal and infancy home visits by nurses. He stressed that the successful programs contain a focus on the families in greatest need, the use of nurses throughout the pregnancy and in follow-up, the promotion of positive health-related behaviours and provisions to reduce family stress. The difficulty, as McNiven, Hodnett and O’Brien-Pallas (23) point out, is that hospital nurses usually can spend little time in supportive care of individual patients. When they conducted random observation of 18 nurses, they found that nurses spent only 9.9% of their time in supportive roles compared to other activities. Bryce, Stanley and Garner (24) did a reasonably well controlled study of 1970 pregnant women with poor obstetrical history in three public hospitals in Western Australia. They assigned approximately half to a program group and the other half to a control group. The program group, in addition to normal antenatal care, had social support consisting of home visits and telephone calls by midwives. They concluded that the results of the trial showed little evidence of the effectiveness of social support interventions in the prevention of preterm birth in women with poor obstetrical histories. Villar et al. (25) examined 2235 women in a higher than average risk group of Latin American women, and found that those who received the home visits as well as the routine pre-natal care had outcomes that differed little from those women who received only routine care. The intervention had no significant effect on the type of delivery, length of hospital stay, peri-natal mortality or neo-natal morbidity.

Oakley (26) reviewed the published literature regarding social support in pregnancy and concluded that there is considerable evidence to suggest that intervention programs to improve the social side of anti-natal care are capable of effecting birth weight. MCH nurses in Melbourne developed an inter-pregnancy intervention to be provided by midwives at home soon after a woman’s first birth. The primary outcome was birth weight difference. Despite wide spread support for pre-pregnancy interventions to improve maternal and peri-natal health, this first randomized controlled trial of a multi component intervention provided at home, did not have a beneficial outcome. (27) A study of 494 maternal-fetal dyads (28) found that the number of pre-natal visits was a significant factor in greater birth weights and maternal weight gain. These authors found that women who received pre-natal care from a single physician are likely to receive more post-natal care.

Orr (29) studied 922 women in one pre-natal clinic and found when the pregnancy was unintentional it was significantly associated with pre-term delivery (RR=1.82, P=0.02). One of the troubles with this study was that the investigators forced the constraints by dichotomizing “intended” vs. “unintended” which distorts a continuous variable. By putting “unsure” in with the unintended group, the study strongly influenced the conclusions. Even those in the “unintended, didn’t want” group were sufficiently interested in their unborn infant to enrol in the study. It appears that wantedness is distributed on a continuum which varied according to personal situation, variations in mood and time of day. We found that given an
opportunity, women will spread their opinions along a continuum between “want all the time” to “don’t want all the time.”

Speizer et al (30) found that pregnancy intendedness was predominately determined by pregnancy desirability. However, they did not attempt to measure the wide variations of desirability on a daily and weekly basis. Another study found that severe stress such as illness, a relative, friends, husbands departure, loss of employment, were unrelated to the onset of premature labour. Coitus on the other hand, in the last few weeks of pregnancy appeared to increase the risk of preterm delivery. (31) Homer found that occupational psychological stress was not associated with preterm low birth weight delivery. (32)

Quality of Pregnancy and Child

With the intention to reduce low birth weight, Desjardins and Harwick (33) found that the optimum number of visits from their staff at the Toronto Healthiest Babies Possible Project was 9 - 11 visits during the pregnancy. Social support appears to affect the quality of the pregnancy, delivery and the infant health at birth. A study of 237 homeless women in Los Angeles (34) found the severity of homelessness significantly predicted low birth weight and pre-term deliveries.

Geller et al. (35) found that the tolerance for ambiguity was lower among those physicians who indicated they would recommend abortion for their patients after a prenatal diagnosis. It appears that ambivalence toward the future in the early stages of pregnancy is a common phenomenon and it is difficult to resolve given the time constraints to obtain an abortion. Brett and Brett (36) provided pregnancy counselling and found that when women were informed about the physical and emotional effects of pregnancy, normal fetal development, and the options available to them, 47% of the women changed an initial decision to abort and 46% of these ultimately continued with their pregnancy. Franz and Reardon (37) found, in a sample of 252 women, that the adolescents compared to the adults were more likely to be dissatisfied with their choice of abortion and more frequently report being misinformed at the time of abortion. We found physicians with religious beliefs, compared to the average family doctor, had significantly lower numbers of abortions and miscarriages in their practice.

How often women with troubling pregnancies tell people in their support network that they are pregnant or that they wish to discuss the issue has also been studied. The study by Zabin et al. (38) of 334 black urban teenagers seeking pregnancy tests in Baltimore, 66% had discussed the possibility they were pregnant. The probability of an adolescent consulting a parent before deciding what to do about her pregnancy was higher if she was younger, if she lived with her parents, and if she found the parents easy to talk to. Tiedje et al analyzing the data from 2018 non-Hispanic white and 743 African American women from 52 clinics in Michigan found preterm deliveries and elevated blood pressure were associated with higher anomi scores and hostility. (39)

In one study we found that unresolved grief from any type of pregnancy loss could interfere with continuing health. (40) This is supported by other research. Seller et al. (41) stated that a pregnancy loss provokes the grief of bereavement, and that this stress is often underestimated by professionals and family alike. They found that the normal bereavement process may occur in specific and accentuated forms in mid-trimester losses and is best explained by the attachment theory of John Bowlby.

Methods

The study sample consisted of 375 unselected people (312 women and 63 men). Of this sample 29.9% were derived from the author’s practice. The remainder were relatively healthy and intelligent trainees for group counselling. The participants were fully informed, both verbally and with a written statement that appeared on the questionnaire. We used a self administered questionnaire comprising of: 1) grids showing the pregnancy outcome of their, their partner’s and their mother’s pregnancy, 2) a number of visual analogue scales on which the participants rated their response between two extremes delineating their emotional response to past and present factors affecting their physical and mental health.

An analysis of the demographic variables of our sample, indicate there was no particular skew in terms of marital status, number of children or educational background for this sample. The distribution of the patient’s emotional and physical health at the time the questionnaire was completed appears to be relatively normal. Few people considered themselves sufficiently unwell to rate themselves as 4 or 5 on a 5 point scale.
Results

When a stepwise regression analysis (SPSS) was done on the 52 variables under consideration, the ones that most closely correlated to the subject having a full term, normal weight birth in the first pregnancy were:

1) the subject's mother had no pregnancy losses;
2) the total number of full term, normal births of the subject's mother;
3) the subject was not sexually abused;
4) her mother did not abort her first pregnancy;
5) there was little chance that she would have been aborted herself. The full list of excluded variables (P>.05) are available on request. Among the variables of statistical insignificance were:

i) marital status;
ii) occupation;
iii) number of children;
iv) number of hospitalisations;
v) highest level of education.

Women under 30 years indicate the most significant factors relating to their full term, normal birth weight pregnancy, is the total number of full term, normal birth weight pregnancies in their mothers' first pregnancy. The variables most closely associated with a full term pregnancy of the woman's second pregnancy are,

i) full term, normal birth weight outcome of their first pregnancy;
ii) being married.

The most closely correlated factors contributing to the number of miscarriages in the woman's first pregnancy is the total number of miscarriages in any of her mother's pregnancies. The most closely correlated factors associated with an abortion of the first pregnancy (stepwise regression) (Illustration I), in descending order are:

i) being emotionally or intellectually neglected as a child,
ii) the subject's mother had at least one abortion,
iii) not being able to grieve their mother's pregnancy loss,
iv) being sexually abused as a child,
v) having a statistically high chance of being aborted themselves,
vi) being a possible pregnancy loss themselves. Marital status, number of children, the number of hospitalisations and the level of education did not appear to significantly correlate with the abortions. The subject's mother aborting their second pregnancy is still the second most closely correlated factor with her decision to abort her first pregnancy.

Controlling for age, sex, marital status, occupation, number of children and the number of hospitalizations, there are significantly high partial correlation co-efficients between the woman's pregnancy outcome and that of her mother's (Illustration II). Controlling for the same variables, there are statistically high correlations between the outcome of a woman's first pregnancy and the outcome of her second pregnancy, particularly with respect to normal, full term births, miscarriages and abortions (Illustration III). The same trend appears in the pregnancies of the subject's mother. The outcome of her mother's first pregnancy is closely correlated with the outcome of her second. These correlations also serve as a check on the accuracy of the subject's memories of their mother's pregnancy outcome. A further check is supplied by the high correlations between the outcome of all the mother's pregnancies, 1 – 9, and the total number of persons having one type of pregnancy outcome or another. If the analysis is continued, it appears that the outcome of the woman's first pregnancy is also a good predictor of the outcome of her third pregnancy. Partial correlations controlling for age, sex, marital status, indicated the total number of outcomes of the same kind throughout all the pregnancies. If the first pregnancy is aborted, there is a 0.655 correlation of the total number of abortions throughout all the pregnancies. Similarly, if the first pregnancy is a full term, normal birth weight child, there is a 0.489 correlation with the total number of normal birth weight children.

With Pearson Correlation Coefficients we found, associations between the outcome of the first pregnancy and the outcomes of the 2-5 pregnancy, there are significant correlations particularly between a normal birth weight in the first pregnancy and the normal birth weight outcome in the second and fifth pregnancy. When there was an abortion of the first pregnancy, there is a strong correlation with the abortion in the second pregnancy that continues through to the fifth pregnancy.

The total number of full term but low birth weight babies in any pregnancies, 1-9, of the subject or their partner, is most closely correlated with:

1) lack of full term, normal birth weight baby in the first pregnancy;
2) the total number of children;
3) poor physical health;
4) lack of full term normal birth weight in the first pregnancy.
pregnancy of the mother;  
5) the total number of abortions in the first pregnancy of the mother.

When stepwise regression correlations are done on 52 factors possibly influencing men to determine those most closely correlated to their partner’s second pregnancy ending in abortion, the closest association is with:  
a) abortion in the first pregnancy,  
b) childhood experience of physical neglect,  
c) the abortion of their mother’s second pregnancy,  
d) tendency their partner feels that she doesn’t deserve to be alive.

The correlations of the subject’s mother’s pregnancy outcome are similar to those of the correlations of the subject or male subject’s partner’s pregnancy outcome. This seems to indicate that the subject had a reasonably accurate perception of their mother’s pregnancy outcome.

The total number of abortions in any pregnancy, 1 - 9, of the subject or the subject’s partner is most closely correlated with:  
a) the number of abortions of the subjects or their partner’s first pregnancy,  
b) the number of abortions in their mother’s second pregnancy,  
c) poor quality of family life,  
d) variety of psychiatric symptoms indicating high levels of anxiety and existential guilt,  
e) the quality of their relationship with their partner is also an important correlation.

The number of the subject’s still births positively correlates significantly with the number of early infant deaths, the number of ectopic pregnancies, the number of premature births, the number of full term low birth weight babies, the partner not being supportive, the belief that abortions should be permitted, their present poor health, and negatively with the number of full term normal birth weight babies. When a stepwise analysis of the dependant variable, the total number of abortions of the subject or subject’s partner’s first pregnancy includes the subject’s mother’s pregnancies up to number 5, the following independent variables in rank order are associated:  
1) they were emotionally or intellectually neglected,  
2) their mother aborted her 3rd pregnancy,  
3) they were unable to grieve the loss of a sibling,  
4) they were sexually abused,  
5) their mother lost her first pregnancy,  
6) there was a statistically high chance of being aborted themselves,  
7) their mother had few full term, normal birth weight pregnancies,  
8) their mother lost her 4th pregnancy by abortion and  
9) a high possibility of being a pregnancy loss themselves.

The total number of full term normal birth weight pregnancies in the subject or their partner’s first pregnancy is most closely correlated with (in descending order according to a stepwise regression analysis),  
1) the subject now feels OK about their mother’s pregnancy loss,  
2) the number of full term normal birth weight pregnancies in their mother’s first pregnancy,  
3) they were not sexually abused,  
4) they were not physically mistreated,  
5) they feel that life is worth living.

The total number of abortions in any pregnancy, 1-9 of the subject or their partner, at the 8th step of the stepwise regression, indicated the most closely related variables were,  
1) the total number of abortions in my or my partner’s first pregnancy,  
2) the total number of abortions in the second pregnancy of the subject’s mother,  
3) poor family life,  
4) not feeling pleased with who they are,  
5) not using their abilities well  
6) the fear that they are losing their mind.

The total number of full term, normal birth weight pregnancies in any of the 1-9 pregnancies of the subject or their partner is most closely correlated with, (in descending order)  
1) the total number of their children,  
2) the total number of full term, normal birth weight pregnancy in the subject or their partner’s first pregnancy,  
3) lack of miscarriages in the subject or the subject’s partner’s first pregnancy,  
4) not feeling that things are unreal,  
5) not having an abortion in subject or the subject’s partner’s first pregnancy,  
6) the total number of hospitalisations.

The factors that most closely correlate with the total number of abortions in the subject or their partner’s first pregnancy are,  
a) whether they were emotionally or intellectually neglected,
b) the number of abortions in their mother’s first pregnancy,
c) they were unable to grieve their mother’s pregnancy loss and
d) they were sexually mistreated. When the analysis is done of the same factors for the subject’s or their partner’s total number of abortion of the fourth pregnancy the closest correlations are:
a) they feel badly about their mother’s pregnancy loss now,
b) poor family life at the present time,
c) the lack of a full term, normal birth weight in the second pregnancy,
d) the total number of hospitalisations and
e) were not able to grieve their own pregnancy loss.

The total number of premature births in pregnancies 1-9 of the subject or the male subject’s partner is most closely correlated with,
a) the total number of children,
b) the lack of a full term, normal birth weight pregnancies in the subject or their partner’s first pregnancy,
c) they were verbally abused.

The total number of full term, but low birth weight babies in any pregnancies, 1-9, of the subject or the subject’s partner is most closely correlated with,
a) lack of full term, normal birth weight in the first pregnancy,
b) the total number of children,
c) poor physical health,
d) lack of full term, normal birth weight in the first pregnancy of the mother and,
e) the total number of abortions in the first pregnancy of the mother.

The total number of miscarriages in any pregnancy, 1-9, of the subject or their partner is most closely correlated with,
a) total number of miscarriages in the first pregnancy,
b) total number of miscarriages in the second pregnancy,
c) number of children,
d) the person was sexually abused or sexually mistreated,
e) they have a feeling that something terrible is going to happen,
f) total number of hospitalisations.

The total number of abortions in the subject or the subject’s partner’s second pregnancy was closely correlated with
1) total number of abortions in the subject or their partner’s first pregnancy,
2) material neglect in their childhood,
3) total number of abortions in their mother’s second pregnancy, and
4) feeling they do not deserve to be alive.

Controlling for age, sex and marital status, a Pearson correlation indicates the outcome of pregnancies 4 and 5 are most closely correlated with the outcome of the first pregnancy. The outcome of the first pregnancy also is closely correlated with the total number of normal pregnancy outcomes. The impact of the first pregnancy outcome lessens with subsequent pregnancies, but continues.

Discussion

Our study appears to show that the major determinants of a woman’s first pregnancy outcome are: the experience of emotional and intellectual neglect as a child, the outcome of her mother’s first pregnancy (especially with respect to whether it is a full term pregnancy or an abortion), a lack of partner or spousal support, the outcome of the woman’s previous pregnancies (especially whether her first pregnancy ended in a full term birth or an abortion), being an abortion survivor (her mother had one or more abortions), and the experience of sexual abuse in her childhood. We found that important factors in other studies, i.e. age, health, marriage, education, number of children or previous hospitalizations, were not significant. We conclude this is partly because many important variables were not considered. This is surprising because clinicians frequently suspect these psychological factors are important but seldom make inquiries regarding them. If these findings and deductions are correct, it behaves an obstetrician, family physician, or a psychiatrist to request this information, e.g. “Please tell me about all your pregnancies and all of the outcomes,” and “Please tell me about the outcomes of all of your mother’s pregnancies.”

These findings demonstrate that pregnancy history repeats itself. Maybe the most pertinent psychological mechanism is the human tendency to re-enact unresolved conflict (42). Many pregnancies that end in abortion, if not all, are filled with ambivalence and often deep conflict. Since women are given little opportunity and little encouragement to talk about their abortion, seeing that it is politically incorrect to do so, they have little opportunity to resolve conflicts surrounding that abortion. Following abortion they
may become depressed because of pathological grief but are given antidepressants rather than counsel to help them mourn. Those conflicts may result from outside sources pressuring them to have an abortion, or from unresolved dilemmas regarding one’s spousal/partner commitment. As we appear to have determined, the experience of being an abortion survivor or having been sexually abused, or having been emotionally or intellectually neglected, lowers a pregnant women’s self respect, making it easier to dehumanise then abort the preborn infant.

Having been sexually abused correlates strongly with the total number of abortions in the first pregnancy. Women who have been sexually abused as children may experience deep conflicts about sex throughout their lives. These conflicts are intensified when they become pregnant. A woman’s unresolved anger toward a male, who sexually abused her as a child, may result in hostility during pregnancy that is displaced onto the unborn infant, “I’ll kill his bastard for what men did to me.” Unresolved sexual conflicts may also result in the woman inadvertently selecting an immature male partner who coerces her into aborting their child with threats of abandonment.

Children who have been emotionally neglected have a tendency to select and then coach their partners into being the type of person who neglected or abandoned them as children. Having been abandoned as a child, the threat of being abandoned by a partner who states, “Get rid of it or I am leaving” is much too threatening. Tragically, having aborted the child in order to maintain the relationship, she finds he leaves anyhow. In a study of a post abortion helpline, we found 80% plus of relationships broke up following an abortion.

If children are born with an understanding of who they are to become, (43) they also know what the necessary ingredients for their development are. These include, affection, affirmation, physical and intellectual stimulation. Children look for these ingredients as they grow. When they are unsatisfied as children, they continue to desperately look for these ingredients as adults, only to be repeatedly disappointed. Often it appears they hope that by becoming pregnant they will, at last, be accepted, affirmed and given affection. When they find the opposite to be true, they may, in bitter disappointment, abort the fetus.

Being an “abortion survivor” (44) apparently affects men deeply when it comes to understanding and welcoming a pregnancy. Fearing that the fetus may be terminated without their awareness or discussion, men hesitate to bond to that preborn infant. Being afraid to bond to the baby makes them less inclined to support their partner. Women who are less supported are more likely to abort. Thus a vicious cycle ensues. Partner support cannot be substituted by family, friends or a professional. Yet too often, professionals attempting to counsel a young woman regarding her pregnancy are loath to deal with the partner because he appears to be a disreputable or immature individual.

The subjects in this study are more likely to abort if their mothers do. Is this revenge on the part of the younger pregnant woman as suggested by Kent et al. (45) Is it possible that the anger at her mother for terminating a sibling is expressed in a determination not to let the mother become a grandmother? It is also possible that the young woman grew up with a mother who had a permissive attitude toward abortion and believes that what was good for her is also good for her daughter. In situations where the mother is attempting to make up her mind regarding her pregnancy, it seems apparent that physicians need to arrange a frank and honest discussion between mother and daughter.

It is possible these subjects are suffering the effects of being an abortion survivor which includes having an existential type of guilt and the difficult-to-carry expectations of them being the replacement child, subsequently having particularly complicated crises when pregnant. Women who have been emotionally neglected may feel that they have a lessened capacity to provide affection for children. Because of their lack of confidence in their ability to parent, they are more likely to select abortion. Having been deprived of essential ingredients to their development, neglected women may feel that becoming a parent will preclude any remaining chance of their being looked after as a child. Having unresolved existential guilt, a woman may believe, “If my existence is so tenuous, I see little future for my baby.”

The limitations of this study include a relatively small sample and/or relatively large number of variables and analysis. However these findings can help form hypothesis for future studies.

If these studies and deductions are correct, it behoves physicians to make their pregnant patients aware of factors that have an important influence on the outcome of their pregnancy decisions. If a woman desires full term children, she should become aware of the fact that the best predictor is a full term outcome to
her first pregnancy. If women had mothers that aborted they should be helped to deal with that very difficult grief.

Conclusion

This is a study of the relative importance of fifty-two predominately psychological factors that have seldom been considered by researchers that may be associated with a woman’s decisions about what to do with her pregnancy. Although it may be assumed that the preborn infant’s being wanted is the predominant factor, a stepwise regression of our data on 373 women indicate that the most important determinants of pregnancy outcome are:

a) emotional neglect in childhood,
b) sexual abuse in the woman’s background,
c) whether she is supported by her partner,
d) the outcome of her mother’s pregnancies,
e) whether or not she was a survivor of her mother’s pregnancy losses,
f) the outcome of her previous pregnancies. It appears the best predictor of the outcome of the second pregnancy is the outcome of the first pregnancy. Since, to some extent, these factors could be controlled or remediated, any physician practising obstetrics and any government that is trying to increase its population should be aware of them.

It is not surprising that the outcome of the first pregnancy correlates significantly with the outcome of the following pregnancy. What is surprising is the pattern of the subject’s pregnancies is so similar to that of her mother. It appears that a women’s choice for an abortion is related to her mother’s similar choice. It is possible that the subject is attempting to understand conflicts of her mother and those of herself as a survivor by repeating the experience in her own life.

If countries are now interested in reducing the number of abortions, they need to first attend to the significant factors found in this study. There seems to be a vicious cycle. In previous studies we found that women who had abortions are more likely to abuse and neglect their children. Children, who are neglected, are more likely to have abortions. It is difficult to stop this vicious cycle except with insight and learning new behaviours.

References


Illustrations

Illustration 1

Factors most closely Associated with the abortion of the subjects first pregnancy

<table>
<thead>
<tr>
<th>MODEL</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTANT</td>
<td>9.068E-02</td>
<td>-1.59</td>
<td>0.11</td>
<td></td>
</tr>
<tr>
<td>Emotional and Intellectual Neglect</td>
<td>2.399E-02</td>
<td>0.17</td>
<td>3.22</td>
<td>0.00</td>
</tr>
<tr>
<td>Total Number of Abortions in Mother’s 1stPreg.</td>
<td>.267</td>
<td>0.15</td>
<td>2.91</td>
<td>0.00</td>
</tr>
<tr>
<td>Unable to Grieve Mother’s Pregnancy Loss</td>
<td>1.931E-02</td>
<td>-2.69</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>Sexually Abused</td>
<td>2.076E-02</td>
<td>0.120</td>
<td>2.20</td>
<td>0.03</td>
</tr>
<tr>
<td>High Chance Subject Could Have Been Aborted</td>
<td>3.147E-02</td>
<td>0.15</td>
<td>2.81</td>
<td>0.01</td>
</tr>
<tr>
<td>Subject Tried to Kill Her/ Himself</td>
<td>2.922E-02</td>
<td>0.12</td>
<td>2.19</td>
<td>0.03</td>
</tr>
<tr>
<td>Possible Subject Could Have Been a Pregnancy Loss</td>
<td>3.303E-02</td>
<td>0.11</td>
<td>1.99</td>
<td>0.05</td>
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</table>

Stepwise regression.
Illustration 2

First Pregnancy Outcomes for Subject and Her Mother

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>FIRST PREGN</th>
<th>Normal</th>
<th>Low BW</th>
<th>Premi.</th>
<th>Miscar.</th>
<th>Abort.</th>
<th>Still B.</th>
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</thead>
<tbody>
<tr>
<td>Normal</td>
<td></td>
<td>.15</td>
<td>.02</td>
<td>.04</td>
<td>-.11</td>
<td>-17</td>
<td>-.06</td>
</tr>
<tr>
<td></td>
<td></td>
<td>p= 0.00</td>
<td>p= 0.64</td>
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<td>p= 0.04</td>
<td>p= 0.00</td>
<td>p= 0.24</td>
</tr>
<tr>
<td>Low B W</td>
<td></td>
<td>-.12</td>
<td>.26</td>
<td>-.04</td>
<td>-.03</td>
<td>-.02</td>
<td>-.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td>p= 0.02</td>
<td>p= 0.00</td>
<td>p= 0.46</td>
<td>p= 0.52</td>
<td>p= 0.73</td>
<td>p= 0.82</td>
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<tr>
<td>Premi.</td>
<td></td>
<td>-.02</td>
<td>-.05</td>
<td>.04</td>
<td>.00</td>
<td>-.04</td>
<td>-.02</td>
</tr>
<tr>
<td></td>
<td></td>
<td>p= 0.76</td>
<td>p= .31</td>
<td>p= 0.45</td>
<td>p= 0.95</td>
<td>p= 0.42</td>
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<tr>
<td>Miscar.</td>
<td></td>
<td>-.61</td>
<td>-.02</td>
<td>.03</td>
<td>.21</td>
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<td></td>
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<td>p= 0.25</td>
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<td>Abort.</td>
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<td>-.01</td>
<td>-.00</td>
<td>-.02</td>
<td>-.06</td>
<td>.15</td>
<td>-.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>p= 0.84</td>
<td>p= 0.95</td>
<td>p= 0.76</td>
<td>p= 0.24</td>
<td>p= 0.00</td>
<td>p= 0.98</td>
</tr>
<tr>
<td>Still B</td>
<td></td>
<td>-.04</td>
<td>-.01</td>
<td>-.01</td>
<td>.12</td>
<td>-.01</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td>p= 0.49</td>
<td>p= 0.83</td>
<td>p= 0.89</td>
<td>p= 0.025</td>
<td>p= 0.91</td>
<td>p= 0.78</td>
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</tbody>
</table>

Partial Correlation Coefficients/ 2-tailed significance
Controlling for: age, sex, marital status, job status, # of children, # of hospitalizations
### Subject’s First & Second Pregnancy Outcome

<table>
<thead>
<tr>
<th></th>
<th>Preg. # 2</th>
<th>Preg. # 1</th>
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<td>Normal</td>
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<td>-.11</td>
</tr>
<tr>
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<td>p = 0.03</td>
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<tr>
<td>Low B.W</td>
<td>-.13</td>
<td>.30</td>
</tr>
<tr>
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<td>p = 0.01</td>
<td>p = 0.00</td>
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<tr>
<td>Premi</td>
<td>-.11</td>
<td>-.04</td>
</tr>
<tr>
<td></td>
<td>p = 0.04</td>
<td>p = 0.43</td>
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<tr>
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<td>Abort.</td>
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<td></td>
<td>p = 0.83</td>
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</table>

Partial Correlation Coefficients/ 2-tailed significance Controlling for: age, sex, marital status, job status, # of children, # of hospitalizations
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