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Postabortion Syndrome: An Emerging Public Health Concern

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Elective abortion, the most common surgical procedure in the United States, continues to generate considerable moral, legal, medical, and psychological controversy. This article reviews the pertinent literature, defines and describes postabortion syndrome (PAS) as a type of Post-Traumatic Stress Disorder. Four basic components of PAS are proposed: (a) exposure to or participation in an abortion experience, which is perceived as the traumatic and intentional destruction of one's unborn child; (b) uncontrolled negative reexperiencing of the abortion event; (c) unsuccessful attempts to avoid or deny painful abortion recollections, resulting in reduced responsiveness; and (d) experiencing associated symptoms not present before the abortion, including guilt about surviving. Clinical evidence and the cardinal features of PAS are presented, and objections to the validity of this diagnostic category are discussed.

In the United States, prior to the liberalization and legalization of abortion, permission for an abortion sometimes required psychiatric determination of individual psychopathology (Stotland, 1989). When abortion became decriminalized and liberalized in the U.S. in 1973, psychiatric indications for abortion were eliminated. Today the abortion decision is private and requires no evidence of psychological impairment. In fact, psychiatric illness may be a contraindication (Moseley, Follingstad, & Harley, 1981; Ney & Wickett, 1989; Zakus & Wilday, 1987). In the current context, it is paradoxical but possible that the decision to

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elect abortion can generate significant resulting psychosocial distress (Rue, 1986; Speckhard, 1987b).

Clinical reports and recent studies have indicated that men, women, families, and even health care providers can sometimes experience negative psychological responses following abortion that do not appear to be linked back to individual pathology (Michels, 1988; Rue, 1986, 1987; Selby, 1990; Speckhard, 1987a, 1987b; Stanford-Rue, 1986). On the other hand, when psychopathology is present preabortion, increasing evidence suggests that abortion does not ameliorate individual dysfunction, but may worsen it (DeVeber, Ajzenstat, & Chisholm, 1991; Mall & Watts, 1979; Ney & Wickett, 1989).

Other recent studies have reported, however, minimal negative outcomes and even relief following abortion (Adler et al., 1990; David, 1985; Major, Mueller, & Hildebrandt, 1985). Not usually examined however, is the question of whether abortion may function in a dual role—as both coping mechanism *and* stressor. While abortion may indeed function as a stress reliever by eliminating an unwanted pregnancy, other evidence suggests that it may also simultaneously or subsequently be experienced by some individuals as a psychosocial stressor, capable of causing posttraumatic stress disorder (PTSD)—(Barnard, 1990; Rue, 1985, 1986, 1987; Selby, 1990; Speckhard, 1987a, 1987b; Vaughan, 1991). We suggest that this constellation of dysfunctional behaviors and emotional reactions should be termed "postabortion syndrome" (PAS).

Sociopolitical Context of Abortion Research

Like the decision to abort, the scientific study of the stress effects of abortion does not occur in a vacuum. The politicization of abortion has significantly restricted scientific investigation of the effects of abortion, and has produced a profound interpersonal and interprofessional schism in American society, including media reporting biases and public misinformation (Shaw, 1990).

There is a reluctance to call attention to negative consequences of abortion for fear of providing support to anti-abortion groups. Minimizing acknowledgment and discussion of postabortion trauma may result in women feeling abandoned by their counselors and isolated from other women experiencing similar difficulties. This may discourage women from revealing their postabortion feelings and may result in labeling women with emotional difficulties after their abortion as deviant and in need of psychotherapy (Lodl, McGettigan, & Bucy, 1985).

Ironically, the politicization of abortion research may be leading us to stigmatize and label women who experience postabortion stress as pathological. This would indeed be unfortunate given the many years of feminist-oriented research that attempted to remedy the "a priori" definition of women who choose abortion as patnological. Neither should those who experience abortion as traumatic

now be defined as pathological without first considering the potential of abortion to act as a trauma even for some healthy women. Steinberg (1989) has cautioned, "We must examine the impact on these women because their numbers are so great and because the political and social volatility of this issue locks so many of them into silence" (p. 483).

Additionally, there is a danger of professional denial concerning the negative effects of abortion (Mester, 1978). The prevailing opinion espoused by the American Psychological Association (APA) is characteristic of the position held by most national and international mental health associations—i.e., that abortion, "particularly in the first trimester, does not create psychological hazards for most women undergoing the procedure" (Fox, 1990, p. 843); that "psychological sequelae are usually mild and tend to diminish over time without adversely affecting general functioning"; and that "severe emotional responses are rare" (American Psychological Association, 1987, p. 25). In the authors' opinion, the APA's position is an unwarranted overgeneralization that cannot be logically supported because it is based on a body of research that is methodologically flawed. David (1987) acknowledged,

> Regardless of personal convictions about abortion, there is general agreement that uncertainty persists about the psychological sequelae of terminating pregnancies. Inconsistencies of interpretation stem from lack of consensus regarding the symptoms, severity, and duration of mental disorder; from opinions based on individual case studies; and from the lack of a national reporting system for adequate follow-up monitoring. . . . The literature abounds with methodological problems, lack of controls, and sampling inadequacies. . . . (p. 1)

Similarly, Adler et al. (1990) cautioned consumers of abortion regarding the psychological health risks by noting that "no definitive conclusions can be drawn about longer effects," and that "women who are more likely to find the abortion experience stressful may be underrepresented in volunteer samples" (p. 43).

Having gone "on record" supporting abortion, it may now be difficult for these professional groups to be open to reexamining their position. This has certainly been true for the American Psychological Association in its abortion advocacy positions, clearly stated in its U.S. Supreme Court amicus curiae briefs (i.e., in *Thornburgh v. ACOG*, *Hartigan v. Zbaraz*, and *Hodgson v. Humphrey*). In our opinion, the APA has been correctly criticized for overly extending the weight of scientific authority with respect to its statements and generalizations regarding adolescents and abortion (Gardner, Sherer, & Tester, 1989). On balance, Wilmoth (1988) concluded, "The most scientific conclusion about the psychological sequelae of abortion would be that the research permits no conclusions" (p. 9).

In 1989, U.S. Surgeon General Koop reported on his findings from meetings with scientists and clinicians, and from reviewing over 250 articles pertaining to the health risks of abortion. He concluded, "all these studies were re-

viewed . . . the data do not support the premise that abortion does or does not cause or contribute to psychological problems" (Koop, 1989a, p. 2). Later Koop testified in the U.S. House of Representatives: "there is no doubt about the fact that there are those people who do have severe psychological problems after abortion" (Koop, 1989b, p. 232), and stated, "if you study abortion the way many people have and see how well women feel about their decision 3 months after the actual procedure, you can be very badly misled" (p. 241).

Recent Abortion Research

Some recent reviews of the literature corroborate Koop's assessment (APA, 1987; Huckeba & Mueller, 1987), though others do not (Adler et al., 1990). Rue, Speckhard, Rogers, and Franz (1987) made an empirical assessment of the literature presented to Surgeon General Koop, which included (a) clinical evidence describing PAS; (b) a systematic analysis by Rogers that quantified threats to validity in 239 postabortion studies; and (c) a meta-analysis by Rogers of the controlled studies. (Excluding the meta-analysis, these data were later refined and published by Rogers, Stoms, & Phifer, 1989). In the paper by Rue et al. (1987), after excluding anecdotal and review articles, there remained 13 postpartum control-group studies, which were meta-analyzed, and 31 prospective and 32 retrospective uncontrolled studies, which were systematically analyzed.

The incidence of 20 methodological shortcomings in the above-mentioned 76 studies is presented in Table 1. For instance, in 69 of 76 studies insufficient sample size was evident (an $N \leq 385$), and in 33 studies substantial sample attrition was evident. Of the total number of studies, 49% used no baseline measurement and 25% had unclear outcome criteria. The mean number of methodological shortcomings per uncontrolled study was 6.9. It was also found that those uncontrolled studies with the greatest methodological weaknesses were more likely to report higher rates of positive experiences after abortion (Rue et al., 1987).

In light of the low estimated statistical power of the individual control-group studies due to their small samples, a literaturewide pooling of results and a focused emphasis on the few studies exhibiting sufficient estimated power were deemed necessary. Accordingly, 11 studies were combined using meta-analytic techniques (two were eliminated because of incomplete data). A separate meta-analysis was conducted on a subset of the 3 studies with sufficient estimated power (.80 or greater). For these 3 studies, the overall effect size (r) linking abortion with increased psychosocial sequelae was .01, with an associated p value of .0001. The degree of heterogeneity among the p values associated with effect sizes for the 3 studies was statistically significant (chi-square [2] = 24.67, $p < .0001$). The combined effect size (r) for the 11 analyzed comparison studies

Table 1. Percentage of Methodological Shortcomings in Comparison, Prospective, and Retrospective Studies of Abortion

Limitations in studies	Comparison studies (N = 13)	Prospective studies (N = 31)	Retrospective studies (N = 32)	Total (N = 76)
Sample size ($N \leq 385$)	77	94	94	91
Sample attrition	31	45	47	43
Selection bias	23	35	28	30
No baseline measurement	31	35	69	49
No demographics	8	19	19	17
Abortion granted on psychiatric grounds	69	52	47	53
History of psychiatric instability	54	65	34	50
No/low instrument reliability	8	35	41	33
No/low interrater reliability	38	19	6	17
Interviewer bias	23	39	56	43
Recall distortion	15	3	59	29
Indirect data	31	16	13	17
Incomplete data	38	52	44	46
Contradiction	0	29	16	18
Unclear outcome criteria	23	29	22	25
Recovery room follow-up	0	16	0	7
Follow-up varies	15	10	38	22
Concomitant sterilization	31	32	28	30
No incidence data	23	26	0	15
Multiple abortions	23	39	38	36

Note. Unpublished table from data set of James Rogers originally used in Rue et al. (1987). Data set later refined and published in Rogers, Stroms, and Phifer (1989).

was .04, with an associated p value of .001. Whether analyzing all studies or the subset of the most powerful studies, the meta-analytic evidence supported the position that postabortion women demonstrate more psychosocial sequelae than do control group women who delivered (Rue et al., 1987).

After considering (a) prospective and retrospective studies, (b) postpartum control-group studies, and (c) the study that appeared to have used the best methodology of the various investigations reviewed (David, Rasmussen & Holst, 1981), Rue et al. (1987) concluded the following: (1) that the abortion literature is largely flawed as to design and methodology, (2) that all psychological studies of abortion display some negative outcomes for at least a proportion of those women studied, (3) that the clinical literature and experience with postabortion trauma are convergent in suggesting the need for the diagnostic category of PAS, and (4) that the types of errors found in the many studies examined *underestimate* the negative responses to abortion.

After reviewing the conclusions of the authors, Dr. Koop directed that the paper by Rue et al. (1987) be peer reviewed by health scientists within the federal government. Various anonymous criticisms of it were later reluctantly and unofficially provided to us (the identity of these reviewers was subsequently revealed in a congressional hearing and published in the committee report; the published versions are cited here). Some of the reviewers' criticisms displayed considerable bias: "Abortion is a moral issue (although all may not agree on this point either) and it must be removed from academic exercises of proof and disproof" (Dever, 1989, p. 165). Other reviewers concurred with the authors "that the issue could have important implications for public health" (Kleinman, 1989, p. 157). Some reviewers objected to the appropriateness of the meta-analytic technique. Meta-analysis, however, is now widely used and generally accepted as a means to obtain a numerical estimate of the overall effect size of a particular variable on a defined outcome. Indeed, in 1988 the authors conducted a computer search of the psychological, medical, health, biological, sociological, and family relations abstracts from 1980 to 1988, and found 895 citations, including approximately 528 meta-analyses that were reported in article titles. More recently, Posavac and Miller (1990) conducted a meta-analysis of the literature on the psychological effects of abortion and concurred that existing research is flawed methodologically, and that comparison group designs may tend to show more negative outcomes for abortion.

Perhaps the methodologically best-designed study completed to date is the Danish study reported by David et al. (1981), and David (1985). In it, admissions to psychiatric hospitals were tracked for a three-month period after either delivery or abortion for all Danish women under the age of 50, and then compared with the three-month admission rate to psychiatric hospitals for all Danish women of similar age. The authors found, "at all parities, women who obtained abortions are at higher risk for admission to psychiatric hospitals than are women who delivered" (David, 1985, p. 155). For aborting women, the psychiatric admission rate was 18.4 per 10,000 compared to 12.0 for delivering women and 7.5 for all Danish women aged 15–49. Of even more concern were the findings pertaining to women who were divorced, separated, or widowed at the time of abortion or delivery. The corresponding rates of psychiatric admission were 63.8 per 10,000 for these women aborting vs. 16.9 for these women delivery.

Four points require emphasis regarding this study (David et al., 1981): (1) it was relatively short-term and provided no long-term assessment of differences between women who aborted vs. those who delivered; (2) it most likely underreported the incidence and degree of postabortion traumatization because women may often be in denial for a considerable period of time after their abortion (see the later section, Cardinal Features of PAS, for further explanation); (3) the outcome measure used was admission to a psychiatric hospital, the worst-case circumstance—one could expect substantial quantitative differences between these two groups if less-severe dependent variables like depressive symptomatology or outpatient treatment in psychotherapy were used; and (4) women who elected abortion at all ages, parities, and relationship strata (except women aged 35–39, those with five pregnancies, and those who were married) had higher rates of admission to psychiatric hospitals than women who delivered.

An example of a methodologically unsound study is one in which 60% of 247 women surveyed failed to complete the study protocol three weeks postabortion (Major et al., 1985). Yet the authors concluded that the majority of women felt relief postprocedure. They did, however, caution:

> Of course, the possibility that women who returned to the clinic for their check-up were coping more successfully three weeks later than women who did not return cannot be ruled out, because we were unable to contact the women who did not return. (p. 594)

This high attrition rate could be attributed to avoidant behavior due to an abortion trauma, and it conforms to the view that women who are more likely to find the abortion experience stressful may be underreported in volunteer samples (Adler et al., 1990).

In 1987, Reardon conducted an exploratory survey of 252 high-stress, postabortion women. Although nonrandomly chosen and self-selected from 42 states, his sample compared favorably to national incidence data on women obtaining abortions by age, family size, race, marital status, and number of previous abortions. He found the majority of respondents experienced some of 28 negative outcomes including the following: flashbacks (61%), anniversary reactions (54%), suicidal ideation (33%), feelings of having less control of their lives (78%), difficulty in maintaining and developing relationships (52%), first use or increased use of drugs (49%), and delayed onset of stress, with most reporting their worst reactions as occurring one year or more postabortion (62%).

Likewise, Speckhard (1987b) found that all of the 30 women in her self-selected descriptive sample had long-term grief reactions, some lasting for over five years. Participants were women who described themselves as experiencing high-stress reactions, recruited through referrals from clinicians and other participants. In structured telephone interviews, the majority reported feelings of depression (100%), anger (92%), guilt (92%), fears that others would learn of the abortion (89%), preoccupation with the aborted child (81%), feelings of low self-worth (81%), discomfort around small children (73%), frequent crying (81%), flashbacks (73%), sexual dysfunction (69%), suicidal thoughts (65%), and increased alcohol usage (61%). The majority of the women studied reported being surprised at such intense reactions to their abortions.

These studies, though done with small, nonrandom groups, show that high-stress postabortive women can be doubly stigmatized by themselves—first by their fear of sharing their abortion experiences with one another and/or being viewed as deviant, and second by feeling that their negative reactions are a sign

of maladjustment to what appears a relatively simple, common, and benign procedure (Speckhard, 1987a, 1987b). Koop (1989b) noted that in U.S. government reproductive surveys, the rate at which women reported having had an abortion was only half that expected based on abortion statistics.

Assessing the impact of abortion on the psychological health of women and men may not be as simple as some have suggested. In her book, *Parental Loss of a Child*, Rando included a chapter on the loss from induced abortion. In it, Harris (1986) described three obstacles to the clinical identification of negative responses following abortion: (1) masking of emotional responses may occur both at the time of the abortion and in later contacts with professionals; (2) if grief persists, it may surface in disguised form and be expressed behaviorally or in psychosomatic complaints; and (3) if the caregiver has ambivalent or unresolved feelings about abortion, this may interfere with the accurate assessment of postabortion trauma and the establishment of trust and the ability to be patient and empathic. Because of the self-insulation associated with the abortion experience, it is important that the caregiver be aware of the potential for grief, and take the initiative in exploring the client's perceptions and reactions. Joy (1985) stressed the need to be alert to women who are requesting counseling for depression resulting from unresolved grief over a prior abortion, i.e., a delayed grief reaction.

Vaughan (1991) studied 232 women from 39 states who by self-report suffered stress, guilt, grief, depression, and anger, which were defined as symptoms of PAS. The sample was purposive and was recruited primarily through a national network of crisis pregnancy centers affiliated with the Christian Action Council. The mean length of time since the abortion was 11 years. Vaughan employed the technique of canonical correlation between antecedent variables and postabortion variables. She found the following: (1) two different profiles of anger, guilt, and stress; (2) postabortion, 45% of respondents reported negative feelings toward subsequent pregnancies, difficulty bonding, and obsessive thoughts of having a replacement child; (3) only 5.9% of those not married but in a relationship at the time of the abortion continued their relationship postabortion; (4) 24% of the postabortive women had medical problems perceived as having been caused by the abortion; (5) 36% were suicidal postabortion; (6) 42% indicated negative interaction with the abortion clinic staff and felt the counseling received there was misleading and deceptive—this dissatisfaction was significantly related to high anger and guilt scores; and (7) the onset of the symptoms suggested as indicative of PAS was often several years postprocedure.

Mattinson (1985) reported on case studies from the Tavistock Institute in London. She found that, for some patients, the existence of postabortion grief placed interpersonal relationships at risk. Delayed grief reactions causing interpersonal stress took many different forms. Some were mild but persistent; others

of a more extreme nature were triggered many years later by a loss of a different nature. Sometimes husbands were more affected than wives.

The first study to use standardized outcome measures of PTSD compared to the diagnostic criteria for PAS developed by Rue was conducted by Barnard (1990). She randomly selected 984 women from a Maryland abortion clinic for a follow-up questionnaire. Interestingly, 60% apparently gave the wrong telephone number at the time of their abortion. After administering a 48-item questionnaire designed to measure PAS (the Impact of Event Scale) and the Millon Clinical Multiaxial Inventory, Barnard reported 45% of her sample of 80 women had symptoms of avoidance and intrusion, and 19% met the full diagnostic criteria for PTSD three to five years following an abortion. She also noted that 68% of these women had little or no religious involvement at the time of the abortion.

Even representatives of Planned Parenthood, an organization that has historically denied the legitimacy of postabortion traumatization and the idea that abortion involves a human death experience, has affirmed that

> women can have a variety of emotions following an abortion (grief, depression, anger, guilt, relief, etc.). It is important to give her the opportunity to air these feelings and be reassured that her feelings are normal. The counselor can also help by letting the woman know that a sense of loss or depression following an abortion is common, due to both the end of the pregnancy as well as the physical and hormonal changes that occur after a pregnancy is over. (Saltzman & Policar, 1985, p. 94)

Because there has never been a national epidemiological study of the psychological health risks of abortion in this country, it is impossible to estimate with any accuracy the incidence of negative abortion sequelae. Lodl et al. (1985) estimated a range of 10%–50% experiencing distress following abortion. A recent APA task force on women and depression (McGrath, Keita, Strickland, & Russo, 1990) concluded that "abortion's relative risk of mental disorder compared with other reproductive events has not been fully ascertained" (p. 12).

Symptoms of traumatization have also been documented in populations of women aborting for genetic reasons, suggesting that the wantedness of the pregnancy at the time of the abortion may not be the key issue in whether or not a woman is traumatized by her abortion, as some have suggested. In a study of couples who elected prostaglandin induction abortion for genetic reasons, i.e., fetal anomalies, Magyari, Wedehase, Ifft, and Callanan (1987) reported negative psychological sequelae in their sample. Interestingly, the psychological intervention protocol developed by Magyari et al. (1987) for these parents of wanted children identified the following: (1) the need for grief counseling that is anticipatory in nature, individualized, and emphasizes the normalcy of feelings; and (2) facilitation of the mourning process by affirming the pregnancy and providing memories central to the grief process. The latter included the options of seeing or

holding the fetus, knowing the sex of the fetus, viewing a photo of the fetus, and naming the fetus. The majority of couples elected to see their aborted offspring.

As is often the case with abortion for nongenetic reasons, common feelings in these couples after abortion for genetic reasons included relief and a sense of conclusion to the crisis. Yet Magyari et al. (1987) cautioned, "We tell them that they face a difficult time and that recovery may not be as smooth as their friends and family may assume it will be" (p. 78). At six to eight weeks postabortion, the intervention team discussed unmet grief reactions thus far and assisted the couple by discussing future events including anniversary reactions. Immediate reproductive replacement was discouraged and the couple was warned "not to pursue a subsequent pregnancy as a replacement for the lost child" (Magyari et al., 1987, p. 80). Even with this intervention protocol in operation, within one year of the abortion, two out of three couples were pregnant again, suggesting the existence of a "replacement child phenomenon." Peppers (1987) has corroborated that grief over a perinatal loss, including abortion can occur irrespective of the wantedness of the pregnancy. In his study, 80 women having abortions at a clinic in Atlanta completed a 13-item grief scale.

Abortion Experienced as a Stressor

"Researchers tend to agree that, at some level, abortion is a stressful experience for all women" (APA, 1987, p. 18). The American Psychiatric Association (1987), in its *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed., rev.; DSM-III-R), listed abortion as an example of a psychosocial stressor, but has not included the category of PAS. As a psychosocial stressor, abortion may lead some women to experience reactions ranging from mild distress to severe trauma, creating a continuum that we conceptualize as progressing in severity from postabortion distress (PAD), to PAS, to Postabortion psychosis (PAP).

The concept of PAS is in the formative stages of understanding and operationalization (Wilmoth, 1988). It took the American Psychiatric Association over a decade to officially recognize posttraumatic stress disorder (PTSD). PAD, PAS, and PAP may currently be making a similar transition, though none of them are currently recognized even as subtypes or examples in the DSM-III-R. The following definitions are proposed:

Postabortion Distress

PAD may be defined as the manifestation of symptoms of discomfort following an abortion, resulting from three aspects: (a) the perceived physical pain and emotional stress of the pregnancy and abortion; (b) the perception of a loss from the abortion (i.e., loss of a role, dream, relationship, parts or perception of self, potential life, etc.); and (c) the conflict in personality, roles, values, and

relationships that results from a changed perception of the appropriateness of the abortion decision.

PAD might be categorized as an adjustment disorder when impairment in occupational functioning or in usual social activities occurs. In order for it to be considered an adjustment disorder, the onset of distress must occur within three months of the abortion and persist no longer than six months, and persistent reexperience of the abortion stressor cannot be present (American Psychiatric Association, 1987).

Postabortion Psychosis

PAP is suggested as a generic designation for major affective or thought disorders not present before an abortion, and directly and clinically attributable to the induced abortion. PAP is characterized by chronic and severe symptoms of disorganization and significant personality and reality impairment, including hallucinations, delusions, and severe depression. Decompensation occurs when the individual becomes aware of, overwhelmed by, and unable to communicate the feelings of guilt, grief, fear, anger, and responsibility for the traumatic death of her/his unborn child. Other manifestations may include intolerable levels of affect, self-condemnation, anxiety, and terror at feeling unable to face the trauma, and also paranoia about being found out. Although PAP is not a commonly encountered reaction to abortion traumatization, clinical evidence of it has been reported (Sim & Neisser, 1979; Spaulding & Cavenar, 1978; Speckhard & Rue, in press).

Postabortion Syndrome

PAS is proposed as a type of PTSD that is characterized by the chronic or delayed development of symptoms resulting from impacted emotional reactions to the perceived physical and emotional trauma of abortion. We propose four basic components of PAS as a variant of PTSD: (1) exposure to or participation in an abortion experience, i.e., the intentional destruction of one's unborn child,[1] which is perceived as traumatic and beyond the range of usual human experience; (2) uncontrolled negative reexperiencing of the abortion death event, e.g., flashbacks, nightmares, grief, and anniversary reactions; (3) unsuccessful attempts to avoid or deny abortion recollections and emotional pain, which result in reduced responsiveness to others and one's environment; and (4) experiencing associated symptoms not present before the abortion, including guilt about surviving.

[1]The term fetal or unborn child is used throughout this article to indicate the differing stages of development, embryo to fetus, at which abortion occurs. This term is used in deference to the perceptions of women and men distressed by the loss of their psychological attachment to what they often refer to as "our baby."

The proposed diagnostic criteria for PAS are described below. These criteria were developed from the diagnostic assessment of PTSD in the DSM III-R (American Psychiatric Association, 1987). The course of PAS conforms to the diagnostic criteria for PTSD—i.e., the symptoms of reexperience, avoidance, and associated symptoms must persist more than one month, or the onset may be delayed (i.e., greater than six months after the abortion). Clinical experience suggests that spontaneous recovery from PAS is not characteristic. Although PAS is categorized here as a type of PTSD, additional diagnoses including anxiety, depressive, or organic mental disorder may concurrently be made.

More than an accidental grab bag of isolated symptoms, PAS is conceptualized here as a clustering of related and unsuccessful attempts to assimilate and gain mastery over an abortion trauma. The resulting lifestyle changes involve partial to total cognitive restructuring and behavioral reorganization.

Wilmoth, Bussell, and Wilcox (1991) argue that PAS is not a type of PTSD because abortion is volitional. Peterson, Prout, and Schwarz (1991) have pointed out, however, that there are situations when patients suffering with PTSD in fact have reasons to feel guilty. They identify among many pathological identifications a "killer self" (p. 90). We submit that the volitional nature of the abortion decision is largely responsible for the perceived degree of traumatization. On the other hand, some women with PAS perceive their abortions as less than totally volitional. Some women feel their abortion was coerced, forced, or the only option available to them (Luker, 1975), and others feel their consent was not informed (Reardon, 1987; Speckhard, 1987b). Moreover, the DSM-III-R does not preclude volitional stressors in the criteria for PTSD (e.g., divorce and accidental homicide). In fact, it clearly indicates that PTSD is apparently more severe and longer lasting when the stressor is of human design (American Psychiatric Association, 1987, p. 248). We hold that abortion, intentionally caused and yielding unintended consequences, is one such example.

Cardinal Features of PAS

Abortion as Trauma

According to the DSM-III-R, PTSD trauma involves

> an event that is outside the range of usual human experience . . . e.g., serious threat to one's life or physical integrity; serious threat or harm to one's children . . . or seeing another person who has been or is being, seriously injured or killed as the result of . . . physical violence. (American Psychiatric Association, 1987, p. 250)

Stress begins with one's perception of it. The meaning of the stressor event as defined by the person experiencing it, as well as its centrality in the person's life, are generally given a high weighting in models that predict the level of stress

experienced (Boss, 1987; Lazarus, 1986). The potential for abortion to be experienced by some as traumatic is increasingly being recognized in research instruments, e.g., the Trauma Constellation Identification Scale (Dansky, Roth, Kronenberger, 1990) and the Impact of Event Scale (Barnard, 1990).

Abortion as nonnormative. Women with PAS may perceive abortion as nonnormative, i.e., as a violation of parental instinct and responsibility. It is generally accepted that many women bond to their child in early pregnancy (Leifer, 1980). Women with PAS may have bonded to the fetal child prior to the abortion; thus their abortion trauma results from the severing of maternal attachments (Ney, 1982; Peppers, 1987; Speckhard, 1987a, 1987b).

From a trauma psychology perspective, a traumatic event is defined as one in which both aggressive and libidinal drives are active, and in which carrying out of an aggressive action occurs at the expense of attachments (Emery & Emery, 1989). For those women who experience abortion as traumatic, the abortion can become an execution of aggressive intent toward the fetus, which was also the object of libidinal drive (attachment, relationship). Hence, according to this conceptualization, a woman who believes she is aborting her unborn child faces the elements of a traumatic stress reaction (Erikson, 1989). Others who participate in an abortion may also experience a traumatic stress reaction.

Death of the fetal child. Although abortion may not be viewed as a serious threat to a woman's life or physical integrity, "the consequences to the fetus are undeniable" (Koop, 1989b, p. 203). Women with PAS may refer retrospectively to the aborted fetus as "my child" and speak in horror of their perceptions of its violent death. These women may report feeling fetal movement, sensing death or panic on the part of the fetus, or viewing or otherwise coming into contact with fetal parts or the delivered fetus as part of the abortion trauma (Selby, 1990; Speckhard, 1987b).

One woman said of her suction abortion, "I don't know how it's possible, but I know I felt when my baby died. I could feel when its life was sucked out. It was awful. I have never felt so empty. I just wanted to die" (M.K., 1984).[2] These perceptions of abortion as a death experience are not limited to women experiencing PAS. In 1989, several national polls found that the majority of Americans perceive abortion as "immoral" and even as "murder" (*Los Angeles Times*, 1989).

Witnessing violent death. Speckhard (1987b) and Selby (1990) have reported that it is not uncommon for women to witness or attempt to view fetal

[2]All quotations with initials were patients in the authors' clinical practices. Initials have been changed to protect confidentiality.

remains postabortion. Experiencing events that are unmistakably violent, like the dismembering of fetal parts in a dilatation and evacuation abortion, may be predictive of severe negative psychological responses for women as well as for their abortion providers, including nursing staff (Denes, 1976; Kaltreider, Goldsmith, & Margolis, 1979; Roaks & Cates, 1977).

Threat to one's person. Although most women do not view abortion as life-threatening, some women with PAS speak of their unanticipated pain and fears of bodily injury during the procedure. As one woman put it, "when they turned on the suction machine it was so painful I really worried that it would take out more than it was supposed to. It can't do that, can it?" (D.R., 1988).

Unacknowledged grief. Because abortion is a socially negated loss, it can result in "disenfranchised grief" (Doka, 1989). Because society denies the humanity of the fetal child, and because abortions are so commonly obtained and legally legitimized, it may be assumed that the woman who has aborted has nothing to grieve (Joy, 1985). Posttraumatic stress is more damaging and more difficult to treat if those around the affected person tend to deny the existence and/or significance of the stressor (Van der Kolk, 1987; Whitefield, 1987). Clinical evidence indicates that grieving for the fetal child and traumatization from its death are not necessarily religiously induced or determined. Grief following a pregnancy loss is a human, not necessarily a spiritually/religiously based or induced phenomenon (Joy, 1985; Rando, 1986). However, the ameliorative role of spiritual healing in helping individuals fully recover from abortion trauma is noteworthy (Stanford-Rue, 1987).

Delayed Onset and Avoidance

For some women, an abortion is traumatic from the onset. For other women with PAS, the meaning attributed to the abortion changes during the procedure as they are flooded with thoughts, emotions, perceptions, or bodily sensations that lead them to conclude that a human death has occurred. Still other women with PAS attribute a more highly charged meaning to the abortion afterward as increased life experiences or knowledge lead them to assess their abortion experience more negatively. For some women with PAS, a subsequent wanted pregnancy awakens the realization that the prior abortion ended a human life.

The most significant characteristic of posttraumatic stress is how the individual reorganizes her whole life around the traumatic event, in this case an abortion. The appearance of symptoms is an indication that reorganization attempts are taking place (Benyakar, Kutz, Dasberg, & Stern, 1989).

Psychic numbing. Psychic numbing assists the woman in protecting herself from intrusive feelings. It includes a constriction of affect, a decreased ability to recognize which feelings are present, and a persistent sense of being cut off from one's surroundings (Whitefield, 1987).

Repression. As an unconscious "safety valve" protecting one from emotional overload and anxiety, repression is a common protective defense mechanism. Women with PAS may employ repression in an attempt to "forget" parts or the whole of the abortion trauma, creating the "psychogenic amnesia" that is a central feature of PTSD. This memory loss may be temporary or chronic. If the cognitive reorganization that supports it is threatened, decompensation may occur, and the entire personality may become disorganized (Speckhard, 1987a).

When a woman's experience of an abortion trauma is delayed, it can cause confusion, fear, and bewilderment in the woman who thought she had successfully dealt with her abortion experience. One woman spoke of it this way, "I can't believe it's my abortion that's bothering me after all these years. It was okay at the time, but now I feel really upset about it and afraid to be alone with my feelings" (M.D., 1990).

Special diagnostic considerations. Special diagnostic considerations include the masking phenomena that occur with PAS. Upon questioning, many women deny ever having had an abortion (Koop, 1989b). Some women with PAS may have difficulty connecting their symptoms with a prior abortion. When an abortion is discussed in treatment, it has been our experience that many women are initially unable to recall the most traumatic aspects of the abortion; i.e., they exhibit psychogenic amnesia.

A key element in diagnosing PAS is a thorough assessment of preabortion symptomatology, or lack thereof. In the diagnostic considerations for PAS, several associated symptoms must be evident postabortion that were not present before the abortion. Some of these symptoms include difficulty concentrating, exaggerated startle response to intrusive recollection or reexperiencing of the abortion trauma, physiological reactivity upon exposure to events or situations that symbolize or resemble an aspect of the abortion (e.g., breaking out in a profuse sweat upon a pelvic examination or upon hearing vacuum pump sounds), and self-devaluation and/or an inability to forgive oneself. Thus, until this syndrome is better understood by health care providers, secondary symptoms (e.g., depression, substance abuse, sleep disorders, suicidal ideation, etc.) may all too easily be misdiagnosed as primary and treated without reference to the unresolved emotions from an abortion trauma.

Iatrogenic illness. Iatrogenic consequences in treating PAS may unfortunately be common; i.e., attempting to be helpful, the therapist may unknowingly worsen the original condition. As one woman recounted,

> The therapist I saw told me that I was trying to blame everything on my abortion, and that it was probably a good decision at the time. He made me feel that something was wrong

with me for feeling so badly about it. I never brought it up again. But now I suddenly find I can't stand to be around my sister's baby, and I freaked out in the gynecologist's office last week. (E.T., 1989)

Reexperience: A Cycle of Intrusion and Denial

Some have argued that events following an abortion may have a mediating effect on the long-term or delayed reactions to abortion. Other traumas both before and after the abortion can certainly contribute to a woman's likely use of repression as a primary defense and to the development of PTSD in relation to any or all of the traumas involved. Trauma researchers have begun to delineate a "trauma pile-up" concept, in which an individual's trauma-coping threshold is overloaded, leading to a PTSD response (Figley, 1985; Peterson et al., 1991). Likewise, mediating traumatic and nontraumatic events are often linked to delayed reactions in that they can cause shifts in understanding or cognitive schemas. This may result in changed and negative definitions of an abortion event, which previously was perceived as benign. These types of events appear most often to be subsequent fertility events, especially subsequent pregnancies that are nurtured (Speckhard, 1987b).

Moreover, as clinicians, we have noticed a connection between abortion traumatization and childhood abuse. Women who were powerless to prevent their childhood abuse resorted by necessity to repression and denial as their primary coping mechanisms (Whitefield, 1987). Later, when confronted with a pregnancy conceived in unsupportive or abusive circumstances, these women were faced with a decision of significant symbolic meaning. The abortion decision was later referred to by many of these women as a "symbolic suicide" or a failure to protect "the powerless child within." For these abuse victims, the decision represented identification with the aggressor and a literal failure to protect the unborn child, who for them represented their own symbolic "child within." Thus the abortion experience can be both disempowering and retraumatizing for these victims of abuse.

Timing of reexperience. Women with delayed onset of symptoms may not report experiencing the abortion as traumatic until they encounter subsequent fertility events. When pregnancy issues take a central role in their lives, these women may begin to reexperience dormant, unresolved feelings that date back to the abortion. Reproductive losses, such as miscarriage, stillbirth, infertility, hysterectomy, and menopause, or other events (such as the death of a child, pet, etc.), can act as the triggers to reexperiencing an abortion trauma. As one woman reported,

I never thought much about my abortion until after I got married and we were trying to have a baby. After one year, then two years, passed of trying to get pregnant, I started

thinking about my abortion all the time. It got so bad that was all I could think about. I'm afraid the aborted baby was the only one that I'll ever have and I can't forgive myself. (D.A., 1989)

Other manifestations of reexperiencing can include intense psychological distress at exposure to events that symbolize or resemble the abortion experience (e.g., medical clinics, pregnant mothers), and anniversary reactions of intense grieving and/or depression on subsequent anniversary dates of the abortion or of the projected due date of the aborted child.

The intrusion–denial cycle described by Horowitz (1976) is a central component of PTSD, and thus of PAS as we define it. Van der Kolk (1987) explained the response to psychological trauma as phasic reliving and denial, with alternating intrusive and numbing responses. The central components in our conceptualization of a long-term or chronic case of PAS are a woman's reliance upon the defenses of denial and repression, and the use of avoidance behaviors to cope with intrusive memories of the abortion.

Intrusive nightmares. If intrusive feelings about the abortion occur during sleep, they can produce nightmares/night terror syndrome. These nightmares fall into three general categories: horrors about how the fetal child died, fearful symbols of judgment and penalty, and searching for something precious that cannot be found. Likewise, women with PAS have reported waking with auditory hallucinations of hearing a baby crying. One woman said, "It was so real when I woke up hearing my baby crying that I would get out of bed and start searching through the house. I looked everywhere for my baby. My housemates thought I had lost my mind" (S.T., 1986).

Intrusive thoughts. In women with PAS, intrusive thoughts often focus on some degree of attachment to the fetal child. Speckhard (1987b) found that 81% of her sample of high-stress women reported a preoccupation with characteristics of the aborted fetal child. This preoccupation included thoughts centered around the dates the child would have been born, its age at subsequent "birthdays," and fantasies about characteristics of the fetal child (e.g., sex, stature, eye, and hair coloring) (Hunter, 1980). Some women even name their fetal child, and its existence becomes woven into the history and childbearing legacy of the parents.

Flashbacks. Flashbacks to an abortion can occur as dissociative states in which sounds, sensations, sights, and emotions reoccur as if the abortion were presently being experienced. Women with PAS may report painful intercourse, panic reactions when examined in stirrups, aggressive and tearful reactions to pregnant women and children, difficulty with pregnancy experiences in general, etc. Clinical evidence has even indicated that flashbacks can be so powerful as to stop labor, necessitating induction or cesarian birth (Speckhard, 1987a).

Survivor guilt. Many of our patients with PAS have a sense of a foreshortened future resulting from the guilt of surviving when the fetal child did not. As one woman stated, "I know that I will never have any other children, and I'm afraid that I will die soon. I know there's nothing wrong with me, but nothing seems right" (D.L., 1990).

Reenactment of the abortion. For some women who have PAS, reenactment of the trauma becomes an organizing feature. Freud (1920/1964a) proposed that the repetition compulsion originated in repression of the trauma, which he described as a dissociative phenomenon, with the patient being unable to remember the whole of what is repressed. What cannot be remembered is precisely the central part of what is reenacted.

Abortion recovery may be unsuccessfully attempted by reenactment through a subsequent pregnancy experience. For some women whose grief about their unborn child is impacted, the compulsion is to attempt mastery of the trauma through resolution of guilt feelings and replacement of the lost object (the fetal child; Bibring, 1943). For some, the resurfacing of the trauma in a subsequent pregnancy is too threatening and compels another abortion (Fisher, 1986). When multiple abortions occur, the traumatization and resulting psychological impairment can be compounded for some women (Somers, 1979).

Denial. As a defense mechanism, the major function of denial is affect protection (Freud, 1939/1964b). In operation, denial is the failure to recognize obvious implications or consequences of a thought, act, or situation (Eaton & Peterson, 1969). Confronting traumatic memories may pose a seemingly unresolvable discrepancy with the individual's existing schemas about the self and the world (McCann & Pearlman, 1990). This may be particularly so in abortion because denial functions as a protective mechanism against experiencing the grief and loss surrounding the abortion death. One woman, when asked how she coped with her abortion experience, replied, "I didn't take it personally" (W.D., 1989). Another woman described her abortion this way: "I had an operation to remove a tumor" (M.J., 1989). Although clinical experiences indicate that denial/numbing is a universal response to trauma (Figley, 1985), denial is also central to the development of PAS because greater amounts of psychic energy are increasingly employed to protect the individual from unwanted and intrusive reexperiencing.

Other indications of denial can include efforts to avoid activities, situations, or information that might arouse recollections of the abortion; markedly diminished interest in significant activities; and a sense of a foreshortened future (e.g., the person does not expect to have a career, marriage, or children, or a long life).

Rue (1986) described five types of denial relating to abortion: occluded, periodic, compensatory, segmented, and purposive. Selby (1990) delineated denial according to stages: (1) preabortion denial (a) of the pregnancy itself, (b) of the responsibility for the pregnancy, (c) of the baby or humanity of the product of conception, or (d) of how she became pregnant; (2) during the abortion event, denial (a) of the physical experience itself, or (b) of her emotional reactions to the procedure; and (3) postabortion denial (a) of certain aspects of the abortion, (b) of all memory of the abortion, and (c) of any relationship between the abortion and self-defeating behaviors. To the extent that denial is intractable, recovery is minimized.

Personality Reorganization

The personality's long-term efforts to cope under conditions of continuing psychic overload are likely to produce secondary personality changes (Tichener & Kapp, 1976). Chronic efforts to ward off recurrence of the abortion trauma may require considerable psychic energy and begin manifesting themselves in hypervigilance, alienation, depression, and/or explosiveness. Attempts may also be made to manage these intrusive symptoms by self-medication via chemical dependency.

The trauma syndrome is actually a continuous range of reactions. In addition to the biphasic alternation of denial and intrusion, Krugman (1987) defined two categories of long-term effects of traumatization: secondary elaboration and posttraumatic decline. In PAS, secondary elaboration involves maladaptation to an abortion trauma, resulting in depression, intimacy avoidance, and relational distortions. These features are most evident when an abortion trauma is unacknowledged. Posttraumatic decline is a restriction of activity and role functioning secondary to psychological constriction and phobic avoidance. In women with PAS this decline may be shown in efforts to avoid reexperience of the abortion trauma that result in relationship failure or divorce; job difficulties and/or loss; constricted affect, thought processes, and/or role functioning; and interpersonal alienation and withdrawal to the point of impairment. Early assessment of postabortion secondary elaboration and relevant interventions could mitigate the degree and course of posttraumatic decline. However, optimum prevention of PAS, we believe, would require a thorough assessment of the predisposing risk factors for traumatization in preabortion counseling.

Predisposing Risk Factors

"Post-traumatic stress disorder is a normal adaptive process of reaction to an abnormal situation" (Lifton, 1988, p. 9). Similarly, we view PAS as an adaptive response to a maladaptive decision to have the abortion. Clinical evidence indicates that PAS can occur both in women who preabortion were relatively normal and healthy, as well as in those who were predisposed to a high-

stress response before their abortion experience. Research on abortion outcomes has identified variables likely to predict negative psychological sequelae (Adler, 1979; Adler et al., 1990; Ashton, 1980; Bracken, Klerman, & Bracken, 1978; Greenglass, 1977; Major & Cozzarelli, this issue; Shusterman, 1979; Vaughan, 1991). Clinical and research evidence suggests that certain types of individuals or circumstances tend to predispose to PAS: prior children, prior abortion(s), low self-esteem, second-trimester abortions, more maternal orientation, religious affiliation and religious conservatism, forced or coerced abortion, lack of relationship support and/or immature interpersonal relationships, preabortion ambivalence, genetic rather than elective abortion, prior emotional problems, prior unresolved traumatization, lack of support from one's family of origin, being an adolescent rather than an adult, and biased preabortion counseling (Rue & Speckhard, in press).

On a cautionary note, these predisposing factors should not be applied to women suffering PAS as another instance of blaming women for their negative reactions rather than acknowledging the potentially traumatic nature of abortion itself.

Secondary Traumatization

The experience of negative psychological reactions is not limited to women having an abortion. Secondary traumatization has been documented in men (Rue, 1984; Shostak & McLouth, 1984), as well as in siblings of the aborted fetus (Furlong & Black, 1984; Ney, 1982; Sheridan, 1987; Weiner & Weiner, 1984), extended family members (Cavenar, Maltbie, & Sullivan, 1978; Cavenar & Spaulding, 1979), and health care providers involved with the abortion (Kaltreider et al., 1979; Roaks & Cates, 1977). Of all of the possible postabortion outcomes, secondary traumatization has been least studied, and no reliable incidence data are available at this time. Clinical evidence suggests that secondary traumatization may include the following: intense overinvolvement in the well-being of the victim (i.e., the aborted fetal child and/or the mother; chronic reexperiencing of the trauma; and a prolonged period of denial, anxiety, and emotional numbing.

Conclusion

The psychological impact of abortion trauma on women, men, and children is far more complex than previously realized. Flawed studies and political pressure have produced an informational deficit concerning postabortion trauma. It is essential that the aftereffects of abortion be thoroughly reexamined. Failure to do so may lead women into making decisions about abortion that could be detrimental to them, decisions lacking in informed consent and free choice. Even critics

like Wilmoth (1988, p. 12) have conceded that "after further study, PAS may become an accepted diagnostic category."

In addition to the need for improved research on this topic, the authors believe there is a growing need for specialized postabortion recovery treatment models and services—for example, postabortion counseling centers, peer support groups, and educational workshops for both the general public and professionals. A growing need is evident; the resistance to this viewpoint, however, may be formidable.

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