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State of Knowledge: Post-abortion Outcomes

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State of Knowledge: Post-abortion Outcomes

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Abstract

A critical analysis of research regarding post-abortion outcomes is presented. The studies reviewed include those following the U.S. legalization of abortion in 1973 and other countries where abortion is legal. Research is examined from the view point of only minimal negative outcomes are experienced and that significant negative outcomes are experienced by women following and elective abortion an elective abortion are discussed.

Keywords:
Post-abortion Research, Post-abortion Outcomes, Risk Factors for Negative Post-abortion Outcomes

State of Knowledge: Post-abortion Outcomes

The literature review consists of research articles from the 1970s to the present time. Only research conducted in the United States following legalized abortion in 1973 and international studies conducted in countries where abortion is legal are included.

Minimal Negative Psychological Outcomes of Abortion

Smith (1973) utilized a structured interview conducted by medical students with 154 women who came to a clinic seeking abortions. Of the initial 154 clients, 125 elected to have abortions, with 80 who had an abortion agreeing to participate in a follow-up interview 1 to 2 years after the abortion. Trained counselors utilizing a semi-structured questionnaire conducted the follow-up interviews. The follow-up interview was either by phone, in person, or through a written format. Seventy-eight percent of the 125 women who aborted stated in the initial interview that they did not suffer any psychological difficulties immediately following the abortion and 90% of the women in the follow-up interview denied any psychological problems. Thus, it was concluded that women experienced minimal negative responses to having an abortion.

Bracken et al. (1974) studied 489 women experiencing abortion to examine their reaction to abortion and to the level of support they received from significant others in the decision to abort. Data were gathered 1 hour following the abortion utilizing a researcher-developed instrument based on Osgood's semantic differential technique. The instrument examined nine items related to the participants' physical and psychological response to their abortion experiences. Three additional yes-no questions were included in the tool regarding the decision-making process and the outcomes of the decision to abort. These researchers found that the women's reactions to abortion were favorable when they felt support from their partner or

parents. They also found that older women had a more positive response to abortion than did young women.

Cvejic et al. (1977) conducted a quantitative descriptive study involving 38 adolescents. Each participant was interviewed 2 years post-abortion, once by a social worker and once by a psychiatrist utilizing a researcher-developed 31 item questionnaire measuring each participant's opinions and attitudes toward abortion. The participant's responses were determined by the interviewer based on the participant's discussion related to the item. The researchers concluded that 68% of the participants had positive thoughts regarding their abortion and had no regret. However, 66% of the participants said they would not have a subsequent abortion because they would not have another unwanted pregnancy, or that, if they did, they would hope their personal situation would allow them to keep the baby.

In critiquing these initial studies, the main areas of concern were the sample attrition rates, the use of instruments with no reported validity or reliability, the poor data collection methods, and the limited data collection time frame of only 1 to 2 years post-abortion. Speckard and Rue (1992, 1993) reported that post-abortion symptoms may not appear until 8 to 10 years or even later from the time of the abortion. Additionally, when women are faced with subsequent pregnancy, reproductive surgery, or normal lifespan reproductive changes, these symptoms may occur or surface.

In one of the few studies that examined the effects of abortion in African-American teens, Zabin et al., (1989) utilized the Spielberger State-Trait Anxiety Index (STAI) to measures the teens' state and trait anxiety levels. Initial data collection involved 334 teens during a clinic visit for a pregnancy test. Of these teens, 141 aborted, 93 delivered, and 100 were found to not be pregnant. One to 2 years later, again utilizing the STAI, the researchers attempted to reach the

same sample and were able to collect data from 122 teens who aborted, 88 teens who delivered, and 92 teens that were not pregnant. The researchers reported that all three groups of teenagers initially reported significantly elevated state anxiety scores from their trait scores ($p< 0.01$). However, when the data from the second interviews were analyzed, the state and trait scores were not found to be significantly different. Researchers concluded that teenagers who had abortions did not report experiencing any more negative psychological effects than either of the other two groups of teenage women studied (Zabin et al., 1989).

One of the largest sample sizes in a study of post-abortion outcomes was that of Russo and Zierk (1992). This study was a secondary analysis of data from the National Longitudinal Study of Youth, which was a survey conducted by the Center for Human Resources Research at Ohio State University and the United States Bureau of the Census. The variables of well-being/self-esteem, abortion, and childbearing, as well as some contextual variables, were examined. Of the 5,295 women surveyed, 773 women had aborted, and of this group, 233 had experienced repeat abortions. The researchers reported that women who had one abortion were found to have significantly greater self-esteem than other participants (r=.03, p<.05). These self-esteem scores were based on the 10 aspects of well-being evaluated with the self-esteem scale. Researchers further reported finding a significant difference in the ratings of the following three items on the self-esteem scale between women who reported having had one abortion and the entire samples' 1987 scores: worth, [F(1,4997) + 10.3, p<.001], capable [F(1,4997) = 6.25,p<.02], and failure [F(1,4997) +4.40,p<.04]. Therefore, the conclusion was that women who experienced one abortion did not experience a significant negative change in their self-esteem.

Utilizing the previous sample described, Russo and Dabul (1997) examined relationships between abortion, well-being, contextual variables, and religious practices of both African

American women and Caucasian women. Of the total sample (*N*=4,336 women), 721 experienced an abortion or abortions, and, for this group, no statistically significant differences were found among the identified variables. Thus, the researchers concluded that regardless of women's religious beliefs or race, having an abortion did not have a long-term impact on the well-being of women.

Major et al. (2000) supported the idea that only a small number of women who experience an elective abortion sustain negative outcomes and indicated these outcomes were minimal. The study included 442 women over a 2-year period. Using a researcher-developed Likert-type questionnaire, investigators found 72% of the women reported being happy with their abortion decision, 69% reported they would choose abortion again, 72% felt they had benefited from the abortion, 80% reported no depression, and only 1% identified experiencing PTSD (Post Traumatic Stress Disorder). Researchers concluded that women generally do not suffer negative outcomes following elective abortions.

The strengths of the Zabin et al. (1989), Russo and Dabul (1997), and Major et al. (2000) studies were attempts to establish a homogenous sample, maintenance of larger sample sizes, and utilization of well-established tools with acceptable reliability and validity. However, the findings of Zabin et al. and Russo and Dabul must be considered in light of two limitations: no reported time frame between the abortion date and the time of data collection, and the ever-present question of women's honesty in confirming an abortion on national surveys. Such weaknesses were stressed by Speckard and Rue (1992), Miller (1992), and Reardon (1996, 2001a), who suggested that research findings supporting the notion that only a small number of women experienced any negative post-abortion psychosocial outcomes were influenced by several factors. These factors included (a) poor methodology, (b) heterogeneous samples, (c)

high sample attrition rates, (d) lack of documentation regarding collection of data and time since abortion, and (e) instruments with poor validity and reliability in measuring study variables.

Significant Negative Psychological Outcomes of Abortion

Through a prospective study of Caucasian and Hispanic teens, Evans, Selstad and Welcher (1976) examined the use of contraception and the emotional status of the teens before and after an abortion procedure, delivery, or negative pregnancy test. Of the 333 participants, 184 teens aborted, 113 delivered, and 36 had negative pregnancy tests. An interview was conducted at the time of the teen's first clinic visit. Follow-up interviews were conducted by the same researcher 6 months following the initial interview for those found not pregnant, 6 months post-abortion, or 6 months post-delivery. Most participants were found to be pro-choice during the first interview with no remarkable change noted in the subsequent interviews. However, 1 out of 5 teens (or 37 teens) who aborted were found to not be satisfied with the choice of abortion and reported having difficulty in achieving resolution of this choice.

Cavenar, Maltbie and Sullivan (1978) presented case studies of 5 women experiencing depression, anxiety, and eating disorders that, after thorough interview assessment, were linked to a previous abortion. These researchers suggested that unresolved grief related to an abortion and to the abortion experience itself impacted women negatively, and also suggested that women with unexplained depression, anxiety, and/or eating disorders should be screened regarding possible past abortion experiences.

In a study of 30 women by Franco, Campbell, Tamburrino, Pentz and Evans (1989), negative outcomes were linked to anniversary dates of either the due date of the pregnancy or the date of the abortion. Two groups were identified from demographic data: women who experienced anniversary-related symptoms and those who did not. Women in the anniversary-

reaction group reported ambivalence toward their decision to abort ($p<0.007$) and expressed a greater degree of concern toward verbally abusing their living children than did the non-anniversary group ($p<0.04$). Utilizing the Million Clinical Multiaxial Inventory, which measures anxiety and depression, women in the anniversary group were found to be more dependent on others ($p<0.06$) and to have stronger tendencies toward somatoform disorders ($p<0.06$) than the non-anniversary group. Further, the researchers reported that as the participants of either group identified more physical problems, the greater their anxiety score ($p<0.027$), somatoform disorder ($p<0.033$), histrionic features ($p<0.011$), and alcohol abuse ($p<0.011$). Participants who reported greater somatic problems also had increased tendency toward schizoid ($p<0.024$), avoidant ($p<0.029$), and borderline personality ($p<0.008$). Women who were found to be passive aggressive in nature were found to report more physical difficulties ($p<0.06$). Based on the results of this study, investigators concluded women's vague unexplained illnesses or depression may be linked to previous abortions.

One of the most noteworthy studies related to negative post-abortive outcomes was that of Speckard and Rue (1992), who conducted a meta-analysis of 11 post-abortion studies. Only 3 studies had sufficient power to examine women's outcomes following an abortion versus women's outcomes following a delivery. Findings from the 3 studies revealed an effect size relating abortion to negative psychological outcome to be .01 with a $p<.001$. Researchers further determined the combined effect size for the 11 original studies to be .04 with a $p<.001$. It was concluded that women who had abortions experienced more negative psychosocial outcomes than did women who delivered their infants.

In an attempt to correlate PTSD and post-abortion stress, Barnard (1990) studied 80 women. All participants were 3 to 5 years post-abortion and were asked to complete the Jackson

Interview to measure PTSD, the Impact of Event Scale to evaluate the degree of stress, and the Million Clinical Multiaxial Inventory to measure anxiety and depression. No statistical correlational findings were presented to achieve the study purpose of answer the research questions. However, the researcher reported that 18.8% of the women studied reported symptoms of PTSD with 20.15% to 46.15% reporting negative symptoms following their abortions. These findings supported Speckard and Rue's 1992 theory of PASS being associated with negative symptoms following an elective abortion.

In order to compare women's outcomes after an abortion, Congleton and Calhoun (1993) interviewed two groups of women who experienced elective abortions. One group expressed emotional distress after their abortion, and the second group described no distress about their abortion. From qualitative analysis of the interviews from both groups, researchers identified six themes: (a) influences regarding the decision to abort, (b) personal response to the abortion experience, (c) feelings of being treated inappropriately by medical personnel, (d) physical response to the abortion procedure, (e) reluctance in having an abortion in the future, and (f) desire to help others who are facing the decision to abort.

These researchers also utilized the Impact of Event Scale (IES) to evaluate symptoms related to traumatic stress by having women complete one IES form based on the week prior to the abortion (IES-1) and one reflective of the week they deemed the most emotionally intense following the abortion (IES-2). The IES-2 scores were found to be significantly different between the distressed group and the non-distressed group [F (1, 42) =7.72, p<.008 and F (1, 42) =8.44, p<.006, respectively]. The within groups differences were also found to be significantly different between the IES-1 and IES-2 scores, with the distressed group being [F (1.19) =118.72,

p<.000] and the non-distressed group being [*F* (1.20=44.22, *p*<.000] (Congleton and Calhoun, 1993).

Data obtained from Congleton and Calhoun's (1993) researcher-developed seven-point Likert-type scale, which reviewed the participants' religious and political views related to abortion, revealed that the distressed and non-distressed groups were significantly different in the area of religious association [*X*2(*df*=3,*N*=50) =16.91, *p*<.001]. Furthermore, the group describing distress reported involvement with nondenominational church organizations, while the non-distressed group reported minimal to no association with churches. Other statistically significant differences between the groups were the areas of social support at the time of the abortion [*X*2(*df*=2, *N*=50) =6.15<.046] and confidence in the decision to abort [*X*2(d*f*=2, *N*=50) =6.22, *p*<.045], with the distressed group reporting lack of social support and lack of confidence in their abortion decision. The final area of significant difference between the two groups was that of the non-distressed group's continued confidence in the abortion decision and the distressed group's ambivalence about the abortion decision [*X*2(*df*=2, *N*=50=34.76, *p*<.001].

Based on these findings, Congleton and Calhoun (1993) concluded that clinicians should consider the abortion process a stressful experience and review with clients who have undergone an abortion their thoughts and feelings regarding the fetus at the time of the abortion and at the time of the clinic visit. Finally, when treating women with depression, clinicians should obtain a pregnancy history regarding unresolved feelings resulting from an abortion and any related recent events that might have re-focused them on the abortion experience, such as subsequent childbirth, illness of living children, or inability to become pregnant.

While findings from these studies supported the idea that some women experience post-abortive negative outcomes, there are noted limitations, such as high sample attrition rate, small

samples, poor methodology, assessment of outcomes limited to 1 to 5 years post-abortion, and use of researcher-developed tools with no reported reliability and validity. The strengths of some of these research reports were that some of the later studies were able to maintain sample size and utilize several well-established instruments. However, even with the identified limitations, the literature clearly supports the idea that some women experience negative outcomes following an abortion experience and need assistance in dealing with these negative outcomes.

Description of Negative Post-Abortion Outcomes

Through the use of a questionnaire derived from sections of the Jackson Interview, a revised Impact of Event Scale, and the Million Clinical Multiaxial Inventory, Barnard (1990) reported that of 80 women who were examined, 20% recognized they were dealing with extreme stress and described symptoms that could be diagnosed as PTSD. Furthermore, 30% of the participants identified feeling negative about the decision to abort at the time of the procedure and continued to describe negative feelings about the abortion experience 3 to 5 years later. Finally, a significant difference ($p<.01$) was found between participants' Million Clinical Multiaxial Inventory scores and the norm score, which suggested that the participants were experiencing high levels of depression and anxiety 3 to 5 years following their abortion experience or experiences.

To explore the use of alcohol and drugs by women who have experienced an elective abortion, Reardon and Ney (2000) utilized a sample of 4,929 women selected from a United States national data base women between the ages of 24 and 44 years. Of these initial surveys, 700 women returned the survey, and 152 reported having had an abortion. The percentage of the women who reported having an abortion was 14.6%, which was below the national average of

25%. The researchers reported that this low percentage was due either to women concealing their abortions or to women who had aborted not returning the surveys.

In order to have a homogenous sample, Reardon and Ney (2000) utilized the previous identified sample and selected data from 536 Caucasian participants. They found that the Caucasian women who had at least one pregnancy and an abortion had a significant association with alcohol and drug use [$X2(28.47, N=441), p<.0000001$]. Upon limiting this same sample to women who had completed only one pregnancy, the association of an abortion experience to substance abuse was found to be [$X2(16.6, N=491), p<.00005$]. However, it must be noted that of this sample group, 65% reported being substance abusers prior to the pregnancy. The survey did not illicit information related to changing habits of substance abuse following the abortion. In an attempt to control for past history of drug and alcohol abuse, the investigators removed from the sample those women with a prior reported history of abuse. The remaining women who aborted their first pregnancy were five times more likely to abuse drugs and alcohol than the women who had never had an abortion [$X2(19.6, N=441), p<.00001$]. These same women were found to have a four times greater chance of abusing drugs and alcohol than women who experienced a miscarriage of their first pregnancy.

Reardon (2001b) examined the recognition of negative outcomes by 260 women who had experienced an elective abortion or abortions and were seeking assistance in dealing with the outcomes. He reported that teens described the following negative outcomes: (a) flashbacks of the procedure; (b) uncontrolled emotional periods; (c) lack of forgiveness of a person related to the abortion experience; (d) fear of God punishing them personally or by harming their living children; (e) consuming thoughts of the aborted child, pregnant women, or babies; and (f) increased negative feelings during contact with abortion-related information or at anniversary

dates of the abortion and/or due date of the aborted child. It was found that women who had experienced multiple abortions frequently described an inability to establish significant relationships, a consumption with a variety of fears, and a development of self-destructive behaviors.

Two studies conducted in countries outside of the United States linked abortion to emotional distress in women. Gissler and Hemminki (1996) examined the association of abortion and suicide in a retrospective descriptive study in Finland involving the deaths of 9,192 women between the years 1987 and 1994. It was determined that, of these deaths, 1,347 were related to suicide. Through matching birth and abortion records with these reported suicides, it was determined that 30 suicidal deaths were associated with women who had given birth, 29 suicidal deaths were associated with women who had aborted, and 14 suicidal deaths were associated with women who had miscarried. The overall suicide rate of women in Finland annually was 11.3 per 100,000 women. Women who delivered a child had a suicide rate of 5.9 per 100,000 births, with an odds ratio of 5.9. In this study, the suicide rate among women who had experienced abortion was three times greater than the overall suicide rate for women in general and six times greater than that for women who experienced deliveries. Thus, it was concluded that women who experienced an abortion were at risk for committing suicide, and it was also concluded that this increased risk of suicide might also be influenced by other factors, such as the women's social class, income, social support, and/or other stressful life events.

A Swedish study was conducted to identify possible risk factors associated with negative outcomes experienced by 854 women following an elective abortion (Soderberg, Janzon and Sjoberg, 1998). Data were collected by one interviewer through use of a semi structured interview guide from one year post-abortion. These researchers found that 354 women

experienced no negative outcomes, 467 women experienced varying degrees of grief and distress, 138 women reported emotional difficulties at the time of the interview, and 33 women expressed having severe depression at the time of the interview.

The research findings reviewed in this section provide support for the notion that some women might experience negative post-abortion outcomes. Further, these negative outcomes, if not identified and treated, could lead to severe health outcomes and even death. However, as in previously discussed studies, these findings also had the following limitations: researcher-developed instruments with no reported reliability and validity, high sample attrition rate, and secondary analysis of established data bases.

Risk Factors Related to Negative Outcomes

As early as 1976, Evans et al. documented potential risk factors for developing negative outcomes following an elective abortion. This group of researchers concluded that young girls who reported ambivalent feelings toward abortion during a pre-abortion interview were found to be at risk for continuing to experience further negative feelings about their decision to abort. Soderberg et al. (1998) also concluded that teenage women and older women who were unsure of the decision to abort were at risk for developing negative outcomes following elective abortions. In addition, they identified the following as high risk factors: (a) women who live alone, (b) women who have limited social support; (c) women who have an unstable relationship with the baby's father; and (d) women who have strong religious beliefs. One of the more recent studies that identified risk factors was that of Major et al. (2000), in which 442 women were studied over a 2-year period following elective abortions. The researchers' findings supported the belief that teens were at risk for poor outcomes and that women who had living children at

the time of the abortion and women with a history of depression had a greater chance of experiencing negative outcomes.

An earlier study by Major et al. (1985) found that women who blamed themselves for the pregnancy were at risk for developing negative outcomes. This finding was established through examination of the outcomes of women who blamed their unwanted pregnancy on their personal character or personal behavior/coping skills and women who believed they could cope with the abortion procedure and tried to find purpose in the abortion experience. This study involved 247 participants who were evaluated 1 hour prior to the abortion with a researcher-developed 18-item blame scale and three additional questions. Both the scale and the questions utilized semantic differential-type scoring. Women who reported blaming their pregnancy on their personal character had significantly more difficulty in coping with the abortion than women who did not blame their personal character [F=2.43,p<.05]. Thirty minutes following the abortion, individually or in groups of two to three, the participants completed a short version of the Beck Depression Scale along with a researcher-developed semantic differential-type scale regarding coping. Of the initial participants, 99 returned for their follow-up visit and completed these same instruments at that time. From these data, the researchers reported the participants who blamed themselves were found to be experiencing more depression [F=5.03, p<.05], and participants who blamed others were found to expect negative outcomes [F=5.42, p<.05]. Furthermore, women who anticipated having difficulty coping experienced more depression [F=36.78, p<.001] and expected more negative outcomes [F=6.45, p<.05].

Utilizing a Likert-type survey, Reardon (2001b) examined the thoughts and feelings of 259 women who had experienced abortion. Women who had an abortion as a teen were more likely to identify negative signs and symptoms associated with PASS. In addition to the negative

teen outcomes, the researchers found that women in general who reported having had multiple abortions also reported (a) experiences of abuse as a child, (b) inability to maintain significant relationships with men, (c) self-destructive behaviors, (d) anxiety disorders, and (e) periods of total dysfunction.

These findings support the notion that women who are at risk of developing negative post-abortion outcomes can be identified during pre-abortion counseling by nurses and can be provided with anticipatory teaching and information regarding various options. Nurses and other health care providers should further incorporate this knowledge of risk factors when assessing all women. In general, studies regarding risk factors for developing poor post-abortion outcomes had the following weaknesses: high attrition sample rate, use of researcher-developed tools with no reported validity or reliability, and limited data collection time frames (which continued to be no greater than 2 years following the procedure).

Summary

Research on post-abortion outcomes since the time of legalization of abortion in 1973 has been critically examined. Literature from the fields of medicine and psychology were predominant. Some literature reflected findings that support the belief that women for the most part do not experience any type of ill effect from having an abortion. While other research strongly supports the view that women do experience difficulties in physical, emotional, and spiritual areas of their lives following an elective abortion.

Despite disagreement regarding the number of women who experience negative outcomes following an elective abortion, the fact is made that some women experience negative post-abortion outcomes. It is also established that these negative outcomes may occur as late as 8 to 10 years post-abortion.

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