

PONTIFICAL ACADEMY FOR LIFE



POST-ABORTION TRAUMA



PONTIFICAL ACADEMY FOR LIFE

## POST-ABORTION TRAUMA

POSSIBLE PSYCHOLOGICAL AND  
EXISTENTIAL AFTERMATHS

ISBN 978-88-97830-27-6

2014





Pontifical Academy for Life



# **POST-ABORTION TRAUMA**

POSSIBLE PSYCHOLOGICAL AND  
EXISTENTIAL AFTERMATHS

Rome 2014

*All right reserved*

© Pontifical Academy for Life

ISBN 978-88-97830-27-6

## CONTENTS

Presentation of the Volume.....	7
---------------------------------	---

VINCENT M. RUE, Ph.D.

<i>Clinical dimensions of post-abortion trauma</i> .....	19
Introduction.....	21
1. The Many faces of trauma .....	26
2. Abortion as trauma .....	30
3. Abortion's aftermath: clinical realities .....	36
4. Grief & trauma .....	46
5. Post-traumatic stress disorder .....	57
6. Post-abortion syndrome.....	65
7. Special considerations .....	92
8. Prevention & Conclusion .....	98
Table 1 .....	104
Table 2 .....	107
References .....	108

PRISCILLA K. COLEMAN, Ph.D.

<i>Women at risk for post-abortion mental health problems and abortion associated relationship challenges</i> .....	147
1. Review of Academic Literature on Risk Factors for Post-Abortion Mental Health Problems .....	149
2. Review of Academic Literature on the Relational Consequences of Abortion .....	156
Table 1 .....	160
Appendix A: Full Citations of Studies listed in Table 1	180
References .....	190

## CONTENTS

JUSTO AZNAR, MD. PH.D. AND GERMÁN CERDÁ, MD. PH.D.	
<i>Abortion and women's mental health</i> .....	195
Introduction.....	197
Results.....	198
Discussion .....	204
Conclusions .....	206
References .....	207

## PRESENTATION OF THE VOLUME

### 1) Choosing the Topic

The collection of studies contained in this volume was born out of the widely shared awareness that having an abortion leaves remnants of a profound suffering, and which in not a few cases leads to real psychological damage. The problem of post-abortion trauma today is of both a scientific and human relevance and we can no longer ignore it on account of the enormous spread of abortion in many countries of the world.

We see that in the current state of things, the debate regarding the existence and characteristics of post-abortion trauma often appears to be conditioned by an ethical approach present in various cultures, an approach that can vary between considering abortion to be essentially a means of birth control (by now the most common) and condemning it as a severely grave violation of the sacredness of unborn human life. In many of the studies conducted up until our current day – the collection, analysis and interpretation of data – the results are strongly influenced by the position assumed prior to any undertaken research. According to some individuals, easy access to abortion is a kind of modern success and otherwise abortion is seen above all as the deprivation of the future life of a being not yet born. In the latter case it is easier to recognize, in addition to the harm done to the baby, the damage inflicted upon the woman which continues to unfold after the fact.

The main objective of any emphasis on the damage done to one's psychological health by procuring abortion is generally to provide potential deterrents to abortion, both in



legislation as well as, and above all, in the context of practical decision-making. In other words, the existence and gravity of post-abortion trauma would only be a further reason to seriously consider the prevention of abortion.

In relation to the perspective of the studies undertaken by the authors of the present volume, it is important to clarify that when one speaks of abortion, this may be in reference to one of many very different kinds of situations. There is abortion defined as “spontaneous” inasmuch as the death of the conceived occurs despite the will of any person – that is, it occurs for some medical reason pertaining to the mother or the fetus which renders the continuing development of the conceived unto birth impossible. The so-called “voluntary” abortion, inasmuch as it is procured intentionally, is thereby the consequence of deliberate choice. In this case, an abortion has a direct connection to the responsibility of the person who chooses it. Yet in the current social context there is often a third kind of abortion. It is generally not considered to be distinct from voluntary abortion, but it nonetheless appears worthy of its own separate space in that there are implications of this kind of abortion that are very much related to the intention behind the work found in this volume. We speak of situations of voluntary abortion, in which the conditioning endured by the woman through external factors results as particularly important. Here one thinks above all of the prenatal diagnoses that show positive results for the presence of certain developmental anomalies or other health problems in the newborn – today this situation almost inevitably yields to the practical application of abortion, an imposition that the woman is rarely able to resist.

These three situations exert a very different impact on the psychological condition of the woman and most certainly on the path leading up to the event of an abortion. In the case of spontaneous abortion, a desired and willed pregnancy ends itself. On an existential level such an abortion almost

always means the loss of a child, one's son or daughter. In this case one experiences the harm inflicted on account of the loss of someone important whom the woman and the family expected to welcome. Nevertheless, since the spontaneous abortion comes entirely as a fact simply to be endured, wherein the woman is rendered a passive subject in relation to the determination of the event, one can expect this type of abortion to follow the ordinary course of unfolding grief.

On the contrary, voluntary abortion implies accepting responsibility for the interruption of the development of the conceived, a responsibility that one may try to hide yet cannot erase. Lastly, in the case wherein the decision to abort positions itself as a consequence of pressure and conditioning, the woman might live through the sensation of the unavoidable sense of the decision to abort. Yet at the same time there are the marks of the presence of an element of a personal decision that cannot be denied. Voluntary abortion – more or less conditioned in the final decision – leads to a more difficult kind of mental processing, bringing with it a serious state of suffering that sometimes lasts for a lifetime. For this reason the efforts of the scholars in this volume are above all concentrated on the subsequent psychological damage in this kind of abortion, with the aim of investigating the preparatory or supporting factors, of studying the clinical characteristics of this kind of abortion (some theorize the existence of a true and proper syndrome correlative to the event of voluntary abortion), always intent on uncovering adequate courses of action with respect to assisting women who are living through this experience.

## **2) The Significance of the Problem**

As expected, the phenomenon of post-abortion trauma shows itself to be particularly relevant to the continuing spread of the practice of abortion, something that is also

encouraged by the legalization or removal of penalties for such an act in nearly every country of the world. If it is true that every single abortion deeply presses upon society insofar as it is the intentional killing of an human individual even before he or she is born, the vast dimensions of this phenomenon in our day cannot but be reasons for a greater reflection<sup>1</sup>, a sign of the attitude of systematic denial of the dignity proper to each and every human being, including the child who is not yet born.<sup>2</sup> The situation of abortion in modern society is therefore a challenge to the very meaning of our living in community and urges us to deeply press upon ourselves the responsibility of each and everyone of us when faced with the safeguarding of human life at its beginnings.

The foremost and essential aspect which calls for consideration is that abortion – as is every form of suppression of human life – constitutes a serious act of injustice committed against a human being. Taking a life, we deprive a person not only of a useful good, maybe even pleasant, but also of his fundamental good. That is, we take away his very existence – taking a life means we erase the person. This evident fact should of itself be sufficient for the understanding that it is not possible to coherently develop any discourse on human rights if we do not admit the priority of the right to life,

---

<sup>1</sup> Some statistics indicate that each year there are around 44 million abortions performed throughout the world. To this one can add the continually growing efforts to legalize and extend this practice to all places in the world (cf. the article of V. Rue in this volume).

<sup>2</sup> John Paul II, in his Encyclical *Evangelium vitae* clearly underlines that “the ‘moral conscience’ of society: in a way it too is responsible, not only because it tolerates or fosters behaviour contrary to life, but also because it encourages the ‘culture of death’, creating and consolidating actual ‘structures of sin’ which go against life. The moral conscience, both individual and social, is today subjected, also as a result of the penetrating influence of the media, to an extremely serious and mortal danger: that of confusion between good and evil, precisely in relation to the fundamental right to life.” (N. 24).

inasmuch as it is an essential condition for the development of any and all other dimensions of the person.

Nevertheless, it is theological literature that allows us to go yet further with our understanding of the dignity of the person and the good of human life. Human beings – as God Himself has revealed – are the most precious reality existing in the world, the only beings whom God desires for themselves, the only beings who possess not only “value”, but also “dignity”, for they are created to live in communion with God. The call to a relationship with God as sons and daughters – the very foundation of human dignity – is inseparable from the call to be alive, to existence, and hence it is a vocation which is intrinsic to man, unconditional and inalienable. This means that every human being from the first to the last moment of his existence is always a being who is “worthy”, and is always “someone”. That is, a human being is never simply “something”.

Precisely because dignity is co-natural to human beings and is unconditional – that is, always and fully present, independent from the concrete circumstances of the existence of any individual – the norm that prohibits abortion is always of an “absolute” character, an obligation *semper et pro semper* that does not recognize exceptions, as would apply to the violation of the human life of any innocent person. No situation can *ever* be considered a valid exception to the norm that forbids direct or voluntary abortion, for no circumstance can *ever* justify (nor render just) the elimination of an innocent human life. Each and every human being *always* bears in himself or herself the *fullness* of human dignity, and so to intentionally deprive an individual of his or her life *always* means to choose not to recognize the human dignity that is proper to that individual. It means to *always* commit a grave injustice against that person. Every single abortion, therefore, *always* objectively constitutes an act of incalculable gravity. Every single abortion *always* deeply cuts down the social and

personal good. Indeed, abortion constitutes an injustice not only with respect to the child victim, but is also an injustice against society as a whole, for each human being represents a good not only for himself or herself, but for all other human beings as well.

Next to any recognition of the intrinsic dishonesty of any act of abortion, today it is necessary to give particular attention to the role of abortion laws. It is certainly a fact that removing all penalties and legalizing abortion – at this point a reality in the majority of countries – undermine so as to dull the perception of the serious illicit nature of this act, and in fact move one to have recourse to abortion. The law, as is well noted, plays an important “educative” role in relation to the perception of that which is good and just on the part of citizens, and the acknowledgement in a juridical sense of abortion is found at the basis of the widely spread consideration today which holds that abortion must be justified – at least in some cases – because the law itself seems to say so.<sup>3</sup>

In reality, nor is it easy for positive law to state the existence of a “right” to abortion – that is, the “right” for anyone to extinguish the life of another. The justification in the majority of current legislation relies on the presumed “therapeutic” value of abortion with respect to the health of the woman. In other words, from a juridical perspective, abortion would derive its licit nature from the fact of being the only practical solution to preserve the physical health or,

---

<sup>3</sup> Again, John Paul II warns that the attacks “affecting life in its earliest and in its final stages, attacks which present new characteristics with respect to the past and which raise questions of extraordinary seriousness. It is not only that in generalized opinion these attacks tend no longer to be considered as ‘crimes’; paradoxically they assume the nature of ‘rights’, to the point that the State is called upon to give them legal recognition and to make them available through the free services of health-care personnel” (*EV*, 11).

more often, the psychological health of the woman from the harm that one claims would result from the birth of the child. As one can see, the inviolability of human life represents one crucial ethical point, though certainly not the only one, of a truly complex question as is that of abortion.

Though not wishing to enter into the merit of the appropriateness of calling the killing of a human being “therapy”, it is nonetheless necessary to call attention to the fundamental scientific error at the base of the agenda of justification behind the majority of abortion laws in force. In reality, it is not only the formal agenda of these laws that is constructed upon a false scientific premise – that which states that abortion is a means of safeguarding the psychological health of the woman – but the common praxis facilitated by these laws also results in a series of enormous scientific errors, such as the claim that the benefit deriving from abortion is yet more significant in younger women, in adolescents, or in women with previous psycho-affective instability. And so today it is the women with these characteristics who are more encouraged to consider abortion.

The common idea, then, is not that abortion might destroy the woman who lives through it, rather that it eliminates a problem that might pose seriously damage to the woman and her well-being. This is the idea that leads the woman or the couple to ask for an abortion. This is the idea of many doctors and health care workers who not only carry out abortions, but even “suggest” or “prescribe” abortion as a “therapeutic” remedy. This idea, at bottom, has been accepted by the legislator who accepts the “sacrifice” of the life of the child so as to protect the health – and on the whole the psychology – of the woman. Against such a claim, the common report of the women who have lived through the experience of an abortion – and of many of those of differing roles accompany these women afterwards – clearly indicate that the event of an abortion, far from procuring the benefit

of the woman, is actually the cause of a great personal and relational disadvantage, or handicap, one which continues to mark the life of that woman for many years to come, though sometimes even persisting for her entire life, and in some cases reaching the point of provoking true and proper psychiatric pathologies.

We therefore find ourselves in a paradoxical situation in which abortion reveals itself to be the cause of a kind of damage that one is trying to prevent by having recourse to abortion. The importance of adequately recognizing this aspect of the problem, in the interest of the subjects directly involved in abortion and the society as a whole which aims to be evermore “just”, and to find “real” solutions which are continually more appropriate to the good of the person, has urged the Pontifical Academy for Life to initiate a group study on “post-abortion trauma” which is in part given in this present volume.

### **3) The Relationship Between Moral Fault and Physical-Psychological Harm**

A further aspect is worthy of consideration as one sets out to study post-abortion psychological damage. This has to do with the relationship that exists between moral fault and physical evil, a relationship which throughout the course of history has often been read according to a paradigm of divine punishment for some evil committed. The Magisterium of the Catholic Church invites us to be very cautious with this particular interpretation, for example in the case of sickness.<sup>4</sup>

---

<sup>4</sup> If it is true that suffering can be related to the experience of fault, it is not true, rather, that all suffering is the consequence of sin and bears the character of punishment. The figure of the just man Job is especially representative of this in the Old Testament. Revelation, the very word of God, frankly poses the problem through the vision of the suffering of the

One will need, instead, to recall how it is in man that moral fault is not constituted simply by the transgression of some norm, rather moral fault always bears direct aggression against some significant human good. Hence, every sin contradicts one of God's commands and thereby breaks off communion between a created being and the Creator, and directly undermines the good of that person, facilitating concrete harm to an essential dimension of his existence.

Physical-psychological harm that at times follows – even in a direct way – certain moral behavior, is nonetheless not to be interpreted as chastisement, instead it is the “natural” expression of the violation of the human good that has been assaulted.

The serious psychological handicap and even the development of some psychosomatic disturbance in the woman who has had recourse to abortion, should in no way constitute a stigma for the committed misdeed. Therefore, though remaining firm and steadfast in the affirmation of the intrinsic and serious moral nature of procured abortion, recourse to abortion should never yield the condemnation of that person, or marginalization of that person by civil society, and this is especially true for the Christian community. On the contrary, the moral and physical condition in which the woman finds herself after having had recourse to abortion renders her in greater need of care and attention in the hope of healing her of the physical damage, and certainly rebuilding her moral life.<sup>5</sup>

---

innocent man – suffering yet without sin. Job was not punished as there was no basis for the infliction of any penalty, even though he was subjected to a most difficult test (cf. *Salvifici doloris*, n. 11). One sees this as well in the teachings of Jesus regarding the “man born blind” (cf. *Jn* 9:1-41).

<sup>5</sup> One thinks of the “medicinal” character, considered in the *latae sententiae* excommunication in the event of a procured abortion, as contained in the Code of Canon Law, canon 1398.



The impossibility of giving a certain interpretation of post-abortion trauma as chastisement for one's sins nonetheless does not mean that such manifestations are totally without relevance to the moral life of the subject. Indeed, the voice of one's conscience constitutes a continuous call to that which is good, as it is naturally man's tendency to strive for the good inasmuch as he has been created by God.

Every time, then, an individual resists the prodding of his conscience and through some act distances himself from it, he will inevitably live out the deep conflict between his own nature and the unsurpassable inclination towards the good, and his willful acting against the good as it has been shown to him by his conscience. The voice of one's conscience can be silenced, yet it can never be eliminated. For it is a constitutive part of man's being – the vocation by which God calls each and every human being towards the good is the very same vocation by which God calls him into existence. Hence, that which is normally experienced as remorse, and what might lead as well to clinical signs and manifestations, and which is nothing less than the voice of one's conscience, gravely wounds a person in his or her desire for the what is good.

#### **4) The Intention and Audience of This Volume**

On the basis of these premises, the present volume means to present the current information and data available with respect to the fact and characteristics of the psychological handicap tied to the experience of abortion, with the scope of mapping out means of intervention and prevention, to the extent possible, or therapeutic, rehabilitating and supportive measures for men and women who live out the consequences and wounds of voluntary abortion. Yet this does not exclude that from an analysis of the data presented herein there will emerge elements and considerations which are also useful for an approach to other forms of abortion.

The research has been entrusted to Prof. Vincent Rue, at the *Institute for Pregnancy Loss* (Jacksonville, Florida, USA); Prof. Priscilla Coleman, Professor of Human Development and Family Studies, Bowling Green State University (Ohio, USA); Director, World Expert Consortium for Abortion Research and Education (CARE); Prof. Justo Aznar, Director of the Institute of Life Sciences, Catholic University of Valencia (Spain) and Prof. Germán Cerdá, Dean of the Faculty of Medicine, Catholic University of Valencia (Spain).

This volume is meant for the wider public interested in the arguments presented here, but also and in particular the doctors and social and health workers who today are not always aware of the negative consequences of abortion on the health of the woman. As Benedict XVI reminds us in his audience with the General Assembly of the Pontifical Academy for Life in 2011: "Against a cultural background characterized by the eclipse of the sense of life, in which the common perception of the moral gravity of abortion and of other kinds of attacks on human life, special fortitude is demanded of doctors so that they may continue to assert that abortion resolves nothing but kills the child, destroys the woman and blinds the conscience of the child's father, all too often ruining family life."

We very much hope and expect that the information herein provokes an attentive reflection as well in those who claim responsibility for legislation. And last but not least, that this information might constitute a valid contribution to the articulation of health care and pastoral assistance specifically designed for subjects who, having participated in some form of abortion, have been "victimized" by it as well. Indeed, once again in the words of Benedict XVI, we have the task of proclaiming the truth of the human good, and the "scientific" truth is an important part of this. "It will likewise be necessary...to provide women who having unfortunately already had an abortion are now experiencing the full moral and existential tragedy of it."





VINCENT M. RUE, Ph.D.

Institute for Pregnancy Loss  
Jacksonville, Florida  
USA

## CLINICAL DIMENSIONS OF POST-ABORTION TRAUMA



## INTRODUCTION

*I went in scared to death. I paid my money, filled out forms, had a pregnancy test ... they asked me a few questions and then took me into the procedure room. Part of me never came out. I've never told anyone about my abortion. Mostly I just feel numb except when I see babies. Then the tears come and I wonder if they'll ever leave.*

One woman's voice, combined with many others like it, evokes a chorus of suffering resulting from an abortion decision. These pained, individual expressions are largely dismissed in a global culture that affirms reproductive rights. This report addresses those women and men whose voices have been drowned out by political correctness, but who are no longer willing to remain silent.

Various global estimates indicate that there are some 44 million elective abortions obtained annually with efforts continuing to both legalize and expand these services worldwide.<sup>1</sup> Given the enormous number of these surgical/medical interventions, one would expect that the benefits for the patient/consumer should be clearly examined under the highest of scientific standards and that such findings be widely known and accepted in the medical/professional literature. This has not been the case.

Despite widespread use of abortion, the paucity of research identifying abortion's health benefits is of great concern. It is well established in medicine and the helping professions that

---

<sup>1</sup> Elective abortion here refers to any surgical and or medical/pharmaceutical means which are used to terminate human fetal life. Elective abortion also includes manual vacuum aspiration but does not include spontaneous abortion, i.e., miscarriage.

without compelling evidence of a clear benefit of a medical/surgical/psychological intervention, there is no justifiable indication for the intervention. As a corollary, a vital question is whether or not abortion ameliorates pre-existing trauma or psychological disorders. Existing research suggests that those women with pre-existing mental health problems are at increased risk of adverse psychological sequelae following their abortion (National Collaborating Centre for Mental Health, 2011). Elective abortion then remains an ethical anomaly in medicine.

Considerable controversy continues to center on whether or not abortion is injurious to a woman's (or her male partner's) mental health despite increasing evidence that elective abortion is associated with mental health disorders. Whether or not abortion *causes* mental health disorders remains the most contentious. And yet, causation is rarely and conclusively determined in psychological and psychiatric research. Paradoxically, prior to legalization in the U.S., a woman's mental health was used as justification for an abortion. Today this justification remains in 23 countries,<sup>2</sup> yet increasing evidence suggests abortion places a woman's mental health at risk.

Recent reports by the American Psychological Association (2008) and the Royal College of Psychiatrists (National Collaborating Centre for Mental Health, 2011) in the U.K. have promulgated a repetitive theme that a single first trimester abortion places a woman at no greater mental health risk than if she were to choose childbirth. These biased reviews and "politically correct" assessments stand in stark contrast to two recent meta-analyses of the best research available which objectively and dispassionately found that women

---

<sup>2</sup> Singh, W. Wulf, D., Hussain, R., Bankole, A. & Sedgh, G. (2009). *Abortion Worldwide: A Decade of Uneven Progress*. New York: Guttmacher Institute.

with an abortion history experienced a 36-81% increased risk for mental health problems overall (Coleman, 2011 and Fergusson, Horwood & Boden, 2011). Indeed, a recent study (Mota, Burnett & Sareen, 2010) reported that between 5.8%-24.7% of the lifetime prevalence of certain mental disorders in the United States could be prevented if women did not elect abortion.<sup>3</sup>

In 1987, Rue, Speckhard, Rogers & Franz provided a systematic review of the mental health and abortion literature and a meta-analysis. They concluded: (1) negative psychological aftereffects of abortion exist on a continuum from mild to severe; (2) meta-analysis of the best studies (those with sufficient sample size, use of comparison group, standardized instrumentation, and control for confounding variables) suggested more negative psychological sequelae were associated with women electing abortion than control group women who delivered; (3) all psychological studies of abortion evidenced some negative sequelae for at least a proportion of women studied; and (4) that the clinical literature is more convergent than divergent in identifying the reality of post-abortion trauma for some women. Two recent meta-analyses by Coleman (2011) and by Fergusson, Horwood & Boden (2011) identified increased mental health risks for anxiety disorders, substance misuse/abuse, and suicide. Coleman (2011) also found increased mental health risks for depression after abortion.

Resistance to the reality that some women and men are psychologically harmed following their abortion is considerable. Those advocating reproductive freedoms and

---

<sup>3</sup> For additional online scholarly examination of the mental health complications associated with abortion for both women and men, see: the Alliance for Post-Abortion Research & Training (APART) at: <http://www.standapart.org>; the Elliot Institute at: <http://www.afterabortion.org>; and WE CARE at: <http://www.wecareexperts.org>.



abortion rights are hesitant to acknowledge any negative emotional aftereffects of abortion for fear that this might buttress arguments to restrict abortion. Consequently, clinical exploration, public disclosure, private acknowledgement and/or policy-oriented research in this area have been impeded and are considered “politically incorrect.”

In the medical, legal and mental health communities, acknowledging the profound effects of human trauma has all too often been met with substantial resistance. This is particularly the case regarding induced abortion. Some clinicians are simply unfamiliar with the post abortion literature and others are reluctant to examine or affirm post-abortion psychological harm for fear of lending support to a political position in opposition to their own and potentially being shunned by colleagues. Still others in their practice never “see” any symptoms of post-abortion trauma because they either do not believe it exists and minimize any reported associations with the abortion, or they never question the client about past pregnancy losses (including abortion) and any possible resulting behavioral, cognitive and/or emotional changes. For these health care and mental health practitioners, post-abortion trauma does not exist.<sup>4</sup>

In general, it is also difficult for women who have had an abortion to acknowledge the reality of their abortion experience. For some women, acknowledging their abortion experience may simply be too painful and threatening. These women believe feelings buried by design are best left buried. For this reason, denial is common among women who have elected abortion. In particular, some women may minimize

---

<sup>4</sup> Long-time opponent of post-abortion trauma, psychiatrist Nada Stotland recently affirmed that abortion can now be considered a *symptom* of a mental health problem in young women. Stotland, N. (2011). Induced abortion and adolescent mental health. *Current Opinion in Obstetrics and Gynecology*, 23: 4.

or deny: (a) that they have experienced any emotional injury, especially when they “chose” to have the procedure; (b) that they feel grief and/or were traumatized; (c) the extent of their emotional suffering from the abortion, particularly when this is minimized by society, friends, and family; (d) that they have had multiple abortions because of the shame and guilt attached to these repetitive experiences; (e) the extent of psychological disruption the abortion caused in their psyches and lives because they “deserved” it as warranted punishment; and (f) the need for treatment because the media and many professionals minimize the painful reality of post-abortion trauma.

Consequently, acknowledgement of the psychological aftermath of abortion is largely avoided or denied. While largely appearing “invisible” at the societal level, this clinical phenomenon is very visible at the personal level where rhetoric collides with reality and where women live out the consequences of their reproductive decision making. In an exposé of the abortion decisions of 23 famous “pro-choice” women, Bonavoglia acknowledged after lengthy interviews:

*Most of the women kept their pregnancies and abortions a secret from their parents. Some feared physical retaliation, but most wanted to spare their parents stress, worry, or shame. These women kept the silence (some to this day) so that their parents' dreams would not be dashed... By and large, women were more afraid to reveal that they had a legal than an illegal abortion... Some had never spoken publicly before about their experiences with abortion, and unexpected feelings welled up in them, provoking tears or anger or silence.<sup>5</sup>*

Nevertheless, Bonavoglia concluded: “no woman in the book described herself as suffering lifelong psychological damage as a result of her abortion” even though “the

---

<sup>5</sup> Bonavoglia, A. (1991). *The Choices We Made*. New York: Random House, p. xxxi ff.

emotional reactions postabortion ranged from terror and confusion to resignation and relief.”<sup>6</sup>

Given the above, it is likely that the debate on the prevalence, causation, and degree of mental health injury associated with elective abortion will continue into the foreseeable future. Studies and counter-studies rife with methodological criticisms and alleged methodological superiority will continue to dominate the scientific and public policy domain. The focus here however is narrower and one on which there is little controversy. Regardless of the research selected, or investigator bias, it remains incontrovertible that *some* women experience serious and lasting mental health injury following abortion (Wilmoth *et al.*, 1992).<sup>7</sup> Various estimates range from 10 to 30 percent or more of women are at risk of adverse psychological and relational outcomes, depending upon the study (Bradshaw & Slade, 2003). Beneath these statistics, the very human face of post-abortion trauma emerges and requires greater understanding and compassionate clinical attention. It is this clinical dimension that is the focus of this report.

## 1. THE MANY FACES OF TRAUMA

How humans respond to psychological trauma is one of the most pressing public health concerns in the world. Trauma not only impacts individual and relationship functioning, it also places women and men at increased risk for mental and physical health declines, including the development of alcoholism, depression, drug abuse, smoking, sleep disorders, suicide, anxiety, sexual acting out, physical inactivity and

---

<sup>6</sup> *Ibid.*, p. xxvii.

<sup>7</sup> Numerous studies identifying adverse psychological outcomes are listed in the Reference section of this report.

obesity, ischemic heart disease, cancer, chronic lung disease, skeletal fractures, hepatitis, stroke, diabetes, and liver disease. The role of psychological trauma as an etiological factor in mental disorders was anticipated by Janet, Freud, and Breuer in the 19<sup>th</sup> century and was “rediscovered” by Kardiner, Lifton & Horowitz in the act and aftermath of repetitive 20<sup>th</sup> century warfare.<sup>8</sup>

In clinical practice as well as in the psychological and psychiatric research literature, “trauma” is defined differently from how it is commonly used in society. For an event or series of events to be considered clinically traumatic, there must be an identifiable stressor event which exceeds the adaptive capacity of an individual. It is estimated that approximately one half of all individuals will be exposed to at least one traumatic event in their lifetime, with the majority being able to absorb the trauma over time. Unsuccessful coping with trauma centers around: (1) an inability to process and resolve feelings or experiences that overwhelmed coping abilities; (2) involuntary preoccupation with the traumatic incident because it was so painful and triggered feelings of helplessness and horror in an attempt to make sense of it and achieve some control over it; (3) unsuccessful attempts to avoid its toxic sensory and emotional overload; (4) avoidance of people, actions or events that evoke reminders of the traumatic event and withdrawal from loved ones, friends or activities that provided some relief; (5) the inability to be present, focused and engaged as the index trauma intrudes and excludes adaptability and resilience; and (6) the development of dysfunctional patterns of functioning that may provide short term relief and long term impairment. According to van der Kolk, posttraumatic stress disorder (PTSD), full or partial, can develop and is itself a manifestation of the individual’s

---

<sup>8</sup> Van der Kolk, B. (2000). Posttraumatic stress disorder and the nature of trauma. *Dialogues in Clinical Neuroscience*, 2(1): 7-22.

inability to be rid of or finished with the traumatic incident. Traumatic intrusions with PTSD are horrifying; these recurrent unbidden visual images are relived relentlessly in visual images, emotional states or nightmares producing continual reexposure to the terror of the trauma. While trauma has a beginning, a middle and an end, the symptoms of PTSD are of a timeless nature obstructing the path of healing the past, and distracting from addressing the responsibilities of the present.

Estimates of those who will develop PTSD vary from 8-28% depending upon the nature and severity of the trauma. Many more will develop sub-threshold PTSD, where symptoms do not reach the full criteria for diagnosis. Many survivors currently living with PTSD experience symptoms that are both chronic and severe, including: nightmares, insomnia, somatic disturbances, difficulty with intimate relationships, fear, anxiety, anger, shame, aggression, suicidal behaviors, loss of trust, and isolation. PTSD comorbid conditions, i.e., depression, anxiety, suicidality, and alcohol/substance abuse problems, are commonplace.

Of course not all adverse or painful events are traumatic. Yet trauma commences with one's perception of it, a cognitive and emotional process identified as one's appraisal. The American Psychiatric Association's (1994) *Diagnostic and Statistical Manual of Mental Disorders IV* (DSM-IV) identifies a traumatic stressor as having two criteria: (A1) traumatic events "involve actual or threatened death or serious injury, or a threat to the physical integrity of oneself or others;" (A2) "the individual's response must involve an intense emotional reaction such as fear, helplessness, or horror." (p. 427-8) What is noteworthy in this clinical definition of trauma is the life losing, life threatening or life incapacitating aspect. The DSM-IV criteria clearly focuses on death or serious injury rather than disappointing, stressful, or sad and difficult events.

Trauma does not negatively impact all individuals in the same way. The impact of trauma on an individual's functioning is highly individualized and contextualized with a number of variables accounting for this: (1) the resiliency of the individual; (2) exposure to prior trauma(s); (3) the nature, duration, intensity, chronicity, and severity of the trauma; (4) lack of support; (5) psychosocial functioning; (6) age; (7) coping abilities and expectancies; and (8) cultural, socio-moral context.

PTSD is based upon trauma theory which represents a fundamental conceptual shift in thinking from the idea that those who have experienced psychological trauma are either "sick" or deficient in moral character to the reframe that they are "injured" and in need of healing.

Many people do not realize the degree to which they are experiencing symptoms related to trauma. Untreated trauma can be the cause of one's anxiety, depression or just general unhappiness or dissatisfaction with life with detrimental consequences in their primary relationships and family life. Some seek and benefit from treatment with many of their traumatic stress symptoms remediated. It is estimated that approximately one out of three individuals with PTSD will fail in their recovery though despite psychotherapy and pharmacological intervention, and continue suffering the adverse effects of trauma throughout their lifetime.<sup>9</sup>

Research suggests women are twice as likely to develop PTSD, experience a longer duration of posttraumatic symptoms, and display more sensitivity to stimuli that remind them of the trauma. Many will hesitate to seek mental health treatment, delay treatment for years, with others never

---

<sup>9</sup> Kessler, R., Sonnega, A., Bromet, E. & Nelson, C. (1995). Posttraumatic stress disorder in the National Comorbidity Survey. *Archives of General Psychiatry*, 52(12): 1048-1060.

receiving treatment at all. Untreated posttraumatic symptoms not only have serious mental health implications, but can also lead to adverse effects on physical health including headaches, gastro-intestinal problems, and sexual dysfunction.

## 2. ABORTION AS TRAUMA

*A lot of people say they're killing their baby. You get a lot of that. Some people afterwards get very upset and say 'I killed my baby.' Or even before, they say 'My circumstances are such that I can't keep it, but I'm killing my baby.' They wouldn't rather have the baby, and give it up for adoption either. If you go into that with them they will say that they could never do that...and yet they still consider it killing the baby...well, they are killing a baby.<sup>10</sup>*

In 1960, Dr. Mary Calderone, a U.S. pro-abortion pioneer in sex education, candidly acknowledged what is increasingly realized today but still obfuscated by the politics of abortion: "I am mindful of what was brought out by our psychologists... that in almost every case, abortion whether legal or illegal, is a traumatic experience that may have severe consequences later on."<sup>11</sup> In 2006, David Fergusson and colleagues examined abortion history across a 25 year period for young women age 15-25 years old. They concluded: "...the present research raises the possibility that for some young women, exposure to abortion is a traumatic life event which increases longer-term susceptibility to common mental disorders." (p. 22) The traumagenic nature of abortion has also been reported by Bradshaw & Slade (2003) and Miller (1998).

Abortion is typically defined as the "termination of pregnancy," as opposed to the "termination of fetal life,"

---

<sup>10</sup> Denes, M. (1976). *In Necessity & Sorrow*. New York: Basic Books, p. 77.

<sup>11</sup> Calderone, M. (1960). Illegal abortion as a public health problem. *American Journal of Public Health*, 50, p. 951.

i.e., ending the life of a unique, genetically complete, human being. The latter connotes fetal death, which implies killing a living fetus who would be born without any intervention. Contrast this with “termination of pregnancy” which simply means prematurely causing the conclusion of the pregnant state of a fertile female. While definitions may be debated *ad nauseum*, there is little argument among the practitioners of abortion: “It [abortion] is a form of killing. You’re ending a life.”<sup>12</sup> For those who have elected abortion and experienced it as traumatic, this conceptual debate is irrelevant and dismissive of a woman’s pain and suffering at the loss of her unborn child.

Direct and indirect killing of a human being carry a significant psychological price. 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, 1989, 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, 1987). 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.” According to Slade *et al.*, (1998), women who elect abortion and who see their dead fetus afterwards are more likely to experience posttraumatic symptoms of intrusion.

Because abortion is unique in medicine, and because it embraces the complexity of life and death, and one’

---

<sup>12</sup> Ron Fitzimmons, the executive director of the National Coalition of Abortion Providers, in David Stout, “An Abortion Rights Advocate Says He Lied about Procedure” *New York Times*. February 26, 1997; A-12.



personal agency, conflict and confusion are normative. The collision of opposing attitudes and emotional states can be “resolved” with the use of “cognitive dissonance” developed more than a half century ago. This theory comes in to play when two simultaneously held attitudes are inconsistent, resulting in psychological conflict, assuming there is a human drive towards cognitive consistency to reduce psychological discomfort. Cognitive dissonance enables an individual to resolve conflicting information into one consistent opinion which is more psychologically acceptable/comfortable. This can help explain how some post-abortive women see themselves as both good persons on the Rosenberg Self-Esteem scale, while at the same time hold the beliefs that abortion is killing and that they are “bad mommies.” According to Dykes, Slade & Horwood (2010), “women reported knowing that the TOP (abortion) was the ‘the right thing to do,’ but maintained a negative perspective of the self as ‘bad’ or ‘guilty.’” For some this might even rise to the level of dissociation and splitting, depending on the degree of the abortion traumatization.

The American Psychological Association (2008) has acknowledged that multiple conceptual frameworks assist in the examination of abortion and mental health, including the stress and coping perspective and the trauma psychology perspective. Trauma psychology focuses on the nature of trauma from the victim’s perspective and examines interventions for immediate, short-term, long-term or delayed traumatic responses caused by a single event or ongoing, longer-term events.<sup>13</sup> It is this latter perspective which is employed here. From this perspective, abortion is viewed as a uniquely traumatic experience involving an intentionally caused death experience of one’s unborn child,<sup>14</sup> the witnessing

---

<sup>13</sup> See: Carll, E. (2007). *Trauma Psychology: Issues in Violence, Disaster, Health and Illness*. Vol. 1 & 2. Greenwood Publishing.

<sup>14</sup> The term fetal or unborn child is used throughout this paper to

of a violent death, with immediate or delayed responses involving fear, terror or helplessness (e.g., Coleman, Reardon, Strahan, & Cougle, 2005; MacNair, 2005; Speckhard & Rue, 1992).

Rue (1991, 1995) and Speckhard and Rue (1992) posited that the traumatic experience of abortion can lead to serious mental health problems across a continuum of harm from adjustment disorders to psychotic disorders and suicide. Rue originated the term Post-Abortion Syndrome (PAS) as a type of posttraumatic stress disorder (PTSD), which will be discussed later on. Abortion then is capable of acting as a traumatic stressor and the generalized nature of grief and trauma responses are universal for those who experience post-abortion distress (Speckhard & Rue, 2012).

## **Men and Abortion**

The focus in this report has largely been on the impact of abortion on women. Too often the world forgets that a pregnancy does not occur in a relational vacuum, but rather involves both woman and man. Even though the research is limited in this domain, existing evidence suggests that some men too are emotionally injured from their abortion experience. Coyle (2007) and Coyle & Rue (2010) provide a substantive review of this literature.

---

indicate the differing stages of development, embryo to fetus, in which abortion occurs. This term is used in deference to the perceptions of the woman distressed by the loss of her psychological attachment to what she generally refers to as "my baby." Clinical experience suggests that such a distressed woman must be allowed to openly grieve her loss no matter how others may refer to the fetal stage of development or the length of gestation. The use of the feminine pronoun throughout this article is not intended to be considered exclusive of men, since men can also be negatively impacted by traumatic abortion experiences.

While the research on men and abortion is limited, existing evidence suggests that most men who experience abortion do not perceive it to be a benign experience<sup>15, 16, 17</sup> and may need, desire, and/or benefit from counselling.<sup>18, 19, 20, 21</sup> Similar to the responses of women, men may experience ambivalent emotions concerning abortion including relief, anxiety, grief, depression, guilt, powerlessness and anger<sup>22, 23, 24</sup> but often tend to repress their emotions in an attempt to support their partners.<sup>25, 26, 27</sup> For some men, their very masculine

---

<sup>15</sup> Shostak, A. (1979). Abortion as fatherhood lost: Problems and reforms. *Family Coordinator*, 28 (4), 569-574.

<sup>16</sup> Shostak, A. (1983). Men and abortion: Three neglected ethical aspects. *Humanity & Society*, 7 (1), 66-85.

<sup>17</sup> Shostak, A. & McLouth, G. (1984). Men and abortion: Lessons, losses and love. New York: Praeger.

<sup>18</sup> Rothstein, A. (1977). Men's reactions to their partners' elective abortions. *American Journal of Obstetrics and Gynecology*, 128 (8), 831-837.

<sup>19</sup> Lauzon, P., Roger-Achim, D., Achim, A. & Boyer, R. (2000). Emotional distress among couples involved in first-trimester induced abortions. *Canadian Family Physician*, 46, 2033-2040.

<sup>20</sup> Gordon, R.H. (1978). Efficacy of a group crisis-counseling program for men who accompany women seeking abortion. *American Journal of Community Psychology*, 6 (3), 239-246.

<sup>21</sup> Coyle, C.T. & Enright, R.D. (1997). Forgiveness intervention with post-abortion men. *Journal of Consulting and Clinical Psychology*, 65 (6), 1042-1046.

<sup>22</sup> Gordon, R.A. & Kilpatrick, C. (1977). A program of group counseling for men who accompany women seeking legal abortions. *Community Mental Health Journal*, 13 (4), 291-295.

<sup>23</sup> Coleman, P.K. & Nelson, E.S. (1998). The quality of abortion decisions and college students' reports of post-abortion emotional sequelae and abortion attitudes. *Journal of Social and Clinical Psychology*, 17 (4), 425-442.

<sup>24</sup> Kero, A., Lalos, A., Hogberg, U. & Jacobsson, L. (1999). The male partner involved in legal abortion. *Human Reproduction*, 14 (10), 2669-2675.

<sup>25</sup> Gordon, R.A. & Kilpatrick, C. (1977).

<sup>26</sup> Robson, F.M. (2002). "Yes! - A chance to tell my side of the story. "A case study of a male partner of a woman undergoing termination of pregnancy for foetal abnormality. *Journal of Health Psychology*, 7 (2), 183-193.

<sup>27</sup> Shostak, A. & McLouth, G. (1984).

identity may be threatened by abortion<sup>28, 29, 30</sup> and may experience sexual problems as a consequence of their abortion experience.<sup>31, 32, 33</sup>

In a large study comparing the psychological consequences of abortion and fatherhood, Buchanan and Robbins (1990) reported that men who experience abortion may be more stressed than men who experience unplanned pregnancy and fatherhood.<sup>34</sup> In addition to increased stress following abortion, some men also experience symptoms of PTSD and relationship problems.<sup>35</sup> With more awareness of the painful realities of abortion for men, it is likely that there will be significantly increased need for specialized programs addressing the psychological and pastoral concerns of these "forgotten fathers."

Induced abortion can reinforce defective problem solving on the part of the male by encouraging detachment, desertion and irresponsibility. The death imprint of abortion can be

---

<sup>28</sup> Speckhard, A. & Rue, V. (1993). Complicated Mourning: Dynamics of impacted post abortion grief. *Journal of Prenatal and Perinatal Psychology*, 8 (1), 5-32.

<sup>29</sup> Holmes, M.C. (2004). Reconsidering a "woman's issue:" One man's postabortion experiences. *American Journal of Psychotherapy*, 58 (1), 103-115.

<sup>30</sup> Rue, V.M. (1996). The effects of abortion on men. *Ethics and Medics*, 21 (4), 3-4.

<sup>31</sup> Rothstein, A. (1977). Abortion: A dyadic perspective. *The American Journal of Orthopsychiatry*, 47 (1), 111-118.

<sup>32</sup> White-van Mourik, M.C., Connor, J.M. & Ferguson-Smith, M.A. (1992). The psychological sequelae of a second-trimester termination of pregnancy for fetal abnormality. *Prenatal Diagnosis*, 12 (3), 189-204.

<sup>33</sup> Berger, J. (1994). The psychotherapeutic treatment of male homosexuality. *American Journal of Psychotherapy*, 48 (2), 251-261.

<sup>34</sup> Buchanan, M. & Robbins, C. (1990). Early adult psychological consequences for males of adolescent pregnancy and its resolution. *Journal of Youth and Adolescence*, 19 (4), 413-424.

<sup>35</sup> Coyle, C.T., Coleman, P.K. & Rue, V.M. (2010). Inadequate preabortion counseling and decision conflict as predictors of subsequent relationship difficulties and psychological stress in men and women. *Traumatology*, 16 (1), 16-30.

felt in role conflict and personality decompensation. Whether or not the male was involved in the abortion decision, his inability to function in a socially prescribed manner, i.e., to protect and provide, leaves him wounded and confused. Abortion rewrites the rules of masculinity. While a male is expected to be strong, abortion can make him feel weak. A male is expected to be responsible, yet abortion can encourage him to act without concern for the innocent and to destroy any identifiable and undesirable outcomes of his sexual decision-making and/or attachments. A male is expected to protect, but by law he is discouraged from doing so in the abortion decision.

When grief and trauma are denied, maladaptive behaviors and feelings are more likely. Typical male grief responses include remaining silent and grieving alone. In the silence, a man can harbor guilt and doubts about his ability to protect himself and those he loves. These “silent sufferers” who feel they must not talk or cry may appear tough, but inside they crumble under the crushing weight of their own conscience and shame. Men who have experienced abortion death can become traumatized by this significant loss. Some become depressed and/or anxious, others compulsive, controlling, demanding and directing. Still others become enraged, and fail in relationships triggering repressed hostility from their disenfranchised abortion grief. To mask or substitute the need to grieve with avoidant behaviors and addictions typically foster denial and force men to become “fugitives” from intimacy and life.

### 3. ABORTION’S AFTERMATH: CLINICAL REALITIES

*When I had my abortion four years ago, I bruised my heart, not my knee. Sure you can put a band-aid on a knee, and air still gets in to heal the wound. But the wound from my abortion has been covered over and over by all the times I ran from it, wouldn't let*

*myself feel it, and lied to myself that it was no big thing. I tell you what, time doesn't heal everything, especially an abortion that has been sealed up inside.*

One of the great ironies of elective abortion is the widespread attention this social issue garners in the public domain, contrasted with the near silence of so many of those who have personally experienced or participated in abortion in some way. In the United States, abortion has been described as "America's New Civil War" – divisive in every way. Yet, in the affective and cognitive domains of those who have chosen abortion, a pregnant silence remains. This is true regarding abortion non-disclosure to parents, relatives, friends, physicians, priests and ministers, and counselors. A communicational chasm forms between living with the personally traumatic experience and the public persona, or the inner and outer self. There are a number of reasons why this is so.

Clinical evidence suggests abortion can act as both a stress reliever and a stress producer. The foundation for this perspective rests largely upon the individual's perception of trauma and research which has reported significant associations between abortion and negative psychological sequelae. For those women who define their fetuses as human and who may have formed some level of attachment, abortion is more likely experienced as a psychosocial stressor (Conklin & O'Connor, 1995; Speckhard & Mufel, 2003). Very often these women believe they were ill-informed beforehand and consequently felt ill-prepared afterwards to cope with their overwhelming feelings of loss, guilt, and grief (Congleton & Calhoun, 1993; Franz & Reardon, 1992). A subsequent shift in perception of the fetus as human at some point after the abortion may also redefine the experience for some women as traumagenic (Speckhard & Rue 1992).

Earlier clinical texts on the psychological aftereffects of abortion are illustrative of the emotional injury some women have encountered following abortion (Burke & Reardon, 2002;

Crawford & Mannion, 1989; Doherty 1995; Freed & Salazar, 1993; Mall & Watts, 1979; Mannion, 1994; Michels, 1988; Reardon, 1987; Selby, 1990; Speckhard, 1987; Stanford-Rue, 1986; Reisser & Reisser, 1989; Winkler, 1992). Both review and research articles have also documented psychological risks of induced abortion (Angelo 1992; Bradshaw & Slade, 2003; Campbell, Franco, & Jurs, 1988; Coleman, Reardon, Rue, & Cougle, 2002a; Coleman, Reardon, Rue & Cougle, 2002b; DeVeber, Ajzenstat, & Chisholm, 1991; El-Mallakh & Tasman, 1991; Franz & Reardon, 1992; Hittner, 1987; Ney & Wickett, 1989; Ostbye, Wenghofer, Woodward, Gold, & Craighead, 2001; Reardon & Cougle, 2002; Rogers, Stoms & Phifer, 1989; Rue, 1986; Rue & Speckhard, 1991; Soderberg, Janzon, & Slosberg, 1998; Speckhard & Rue 1992, 1993; Zakus & Wilday, 1987).

Not surprisingly, because abortion carries significant stigma and shame, women who have elected this procedure and lived with the silence these feelings create are often likely to make choices in their adult relationships that reinforce their damaged sense of self-esteem and further exacerbate their feelings of inadequacy and worthlessness. These women (and men) who feel victimized by their abortion experience are at much higher risk for a variety of psychological problems, including depression, anxiety, posttraumatic stress disorder (PTSD), suicide attempts, and drug and alcohol problems (Coleman, Coyle, Shuping & Rue, 2009a; Coleman, Coyle, Shuping & Rue, 2011; Coleman, 2011). Moreover, they are much more likely to be hospitalized in a psychiatric facility and have more extensive utilization of health services than women without a history of abortion (Reardon, Cougle, Rue, Shuping, Ney & Coleman, 2003; Ostbye *et al.*, 2001; David, Rasmussen & Holst, 1981).

## **Depression and Abortion**

It is commonly accepted in trauma psychology that trauma involves significant loss and grief. Because of this, depression

may also be experienced. It may be mild or severe. Trauma in general and PTSD in particular often occur in conjunction with affective disorders, including bipolar and unipolar depression and major depressive disorder. Typical symptoms of major depressive disorder occurring nearly every day include: (1) depressed mood most of the day; (2) diminished interest or pleasures in all or most activities; (3) significant weight gain or loss; (4) sleep problems; (5) feelings of restlessness or being slowed down; (6) fatigue; (7) feelings of worthlessness or excessive or inappropriate guilt; (8) diminished ability to think or concentrate; and (9) recurrent thoughts of death and suicidal thinking. Normal bereavement is identified in the DSM-IV as excluding the symptoms of a major depressive episode. While the duration of "normal" bereavement varies considerably, generally it may not extend beyond two months after the loss.

In a meta-analysis of the mental health literature, Coleman (2011) concluded there was a 37% increased risk of suffering depression following abortion compared to women who have not had an abortion. Numerous other researchers and clinicians have identified depression associated with elective abortion: Bradley, 1984; Broen *et al.*, 2006; Broen *et al.*, 2005a; Broen *et al.*, 2004; Burnell & Norfleet, 1987; Cohen & Roth, 1984; Coleman 2011; Coleman, Coyle, Shuping & Rue, 2009 & 2011; Coleman *et al.*, 2002; Coleman & Nelson, 1998; Congleton & Calhoun, 1993; Cougle *et al.*, 2003; Cozzarelli, 1993; Dingle *et al.*, 2008; Fayote *et al.*, 2004; Fergusson *et al.*, 2009; Fergusson *et al.*, 2008; Fergusson *et al.*, 2006; Hamama *et al.*, 2010; Harlow *et al.*, 2004; Hemmerling *et al.*, 2005; Henshaw *et al.*, 1994; Kero *et al.*, 2004; Lazarus, 1985; Lyndon *et al.*, 1996; Major *et al.*, 2000; Major *et al.*, 1990; Major *et al.*, 1985; Miller *et al.*, 1998; Mota *et al.*, 2010; Pope *et al.*, 2001; Pederson, 2008; Pederson, 2007; Reardon & Cougle, 2002; Reardon *et al.*, 2003; Rees & Sabia, 2007; Russo & Denious, 2001; Schmiede & Russo, 2005; Slade *et al.*, 1998; Soderberg *et*



*al.*, 1998; Speckhard & Mufel, 2003; Steinberg & Finer, 2011; Steinberg *et al.*, 2011; Suliman *et al.*, 2007; Suri *et al.*, 2004; Taft & Watson, 2008; Urquhart & Templeton, 1991; Warren *et al.*, 2010.

Depression following abortion can be triggered by a number of factors or combinations thereof: hormonal changes, awareness of the loss of one's unborn child, loss of one's primary relationship, and significant feelings of guilt and shame related to one's participation in the abortion. Depression is a persistent clustering of symptoms that can be overwhelming and disabling. Its constancy is a hallmark of this mental affliction. Depression robs an individual of motivation and hope while extinguishing interest in usual or typical activities, including pleasure-filled ones. Untreated depression for post-abortive women and or men can manifest as an inability to balance negative thoughts and emotions with positive ones. It means personal isolation and hopelessness, wherein the self is both alienated from itself and from others who otherwise could nurture and help engage life. Feelings of sadness and emptiness permeate one's existence, and account for a downward cycle of more depression, desperation and isolation.

Individuals with depression also experience dysregulation in eating and the maintenance of their physical health. Instead of being restorative, difficulty with sleep becomes normative. During the day, exertion is countered with lethargy, fatigue, and feelings of futility. Depression compounds low self-esteem and acts as a psychological escalator of personal unworthiness and worthlessness. Mental processes become labored, difficult, and confusing, resulting in feelings of not fitting in and being different than others because of aborting one's offspring. Decision making becomes nearly impossible and the self is flooded with indecision, anxiety, and tortuous temptations that life would be better if one were dead.

## Anxiety and Abortion

Interactions among the following factors are generally recognized in the genesis of anxiety disorders: (1) negative affectivity or neuroticism; (2) involuntal vigilance and narrowing attention to stimuli/signals of potential threat; (3) a tendency toward interpreting ambiguous situations as threatening; (4) passive avoidance, overcautiousness, or procrastination; (5) perceptions of uncontrollability and unpredictability; and (6) cognitive avoidance, distraction, or other active efforts to resist or neutralize worrying. Anxiety includes cognitive, physiological, emotional and behavioural facets. Anxiety can be mild, moderate or severe. Moderate or severe anxiety can be significantly impairing for individuals. Post-abortion anxiety may be transitory or chronic, and was not present prior to the abortion.

As a precipitating stressor, a traumatic abortion experience can overwhelm one's capacities to control and result in feelings of helplessness, loss and grief. Having once experienced a circumstance with attendant loss of control feelings, anxiety becomes a coping mechanism that helps prevent future anticipated losses or injury in related situations. In this sense, anxiety keeps the post-abortive individual in a steady state of alert, protection and control by anticipating harm, yet the functional price of excessive worry and being hyperalert is clearly burdensome and can become overwhelming.

Feelings of anxiety and nervousness are often associated with pregnancy loss and abortion in particular. Ashton (1980) reported 44% of his sample complained of nervous symptoms. Coleman (2011) reported a 34% increased risk for anxiety for women electing abortion compared to women with no abortion history. Other studies examining anxiety and abortion include: Broen *et al.*, 2006; Broen *et al.*, 2005a; Broen *et al.*, 2004; Burnell & Norfleet, 1987; Cohen & Roth, 1984; Coleman & Nelson, 1998; Coleman *et al.*, 2002; Coleman, Coyle, Shuping & Rue,

2009 & 2011; Cougle *et al.*, 2005; Dingle *et al.*, 2008; Fayote *et al.*, 2004; Fergusson *et al.*, 2006; Fergusson *et al.*, 2008; Fergusson *et al.*, 2009; Hemmerling *et al.*, 2005; Henshaw *et al.*, 1994; Kero *et al.*, 2001; Russo & Denious, 2001; Slade *et al.*, 1998; Steinberg & Finer, 2011; Steinberg & Russo, 2008; Urquhart & Templeton, 1991; Williams, 2001.

## **PTSD and Abortion**

PTSD and abortion will be discussed later on in greater detail. PTSD is a human response to a markedly abnormal situation, i.e., an abortion. Empirical evidence of a link between abortion and PTSD symptoms has accumulated in recent years (Bradshaw & Slade, 2003; Mufel *et al.*, 2002; Rue *et al.*, 2004; Suliman *et al.*, 2007; Coleman *et al.*, 2009). It is estimated that 12–20% of women with an abortion history may meet the full diagnostic criteria for PTSD with considerably higher percentages of women experiencing some trauma symptoms, while not meeting the full criteria (Rue *et al.*, 2004; Suliman *et al.*, 2007; Coleman *et al.*, 2009). Even when the full criteria are not met, the more PTSD symptoms present, the greater the risk of psychological impairment and suicidal ideation (Marshall *et al.*, 2001).

Posttraumatic stress disorder symptoms following abortion have been reported by a number of clinicians and investigators: Bagarozzi, 1993; Bagarozzi, 1994; Baker *et al.*, 2011; Barnard, 1990; Boulind & Edward (2008); Broen *et al.*, 2004; Broen *et al.*, 2005a; Broen *et al.*, 2005b; Broen *et al.*, 2006; Coleman, Coyle, Shuping & Rue, 2009 & 2011; Coleman *et al.*, 2010; Congleton & Calhoun, 1993; Coyle *et al.*, 2010; Denis *et al.* (2011); Erikson (1993); Fergusson *et al.*, 2006; Fisch & Tadmor (1989); Kelly *et al.* (2010) Lavín & Garcia, 2005; Hamama *et al.*, 2010; Hemmerling *et al.*, 2005; Kersting *et al.*, 2004; Kersting *et al.*, 2005; Major & Gramzow, 1999; Major *et al.*, 2000; Mufel *et al.*, 2002; Pope *et al.*, 2001; Rousset *et al.* (2011); Rue, Coleman, Rue

& Reardon, 2004; Slade *et al.*, 1998; Speckhard & Mufel, 2003; Steinberg & Finer, 2011; Steinberg & Russo, 2008; Suliman *et al.*, 2007; Toledano (2004).

For some young women, exposure to abortion is a traumatic life event which increases longer-term susceptibility to common mental disorders (Fergusson *et al.*, 2006). Compared to control group women who underwent comparable surgical procedures, PTSD was found to be more prevalent in the post-abortion group and these women also exhibited longer response latencies for abortion/trauma-relevant stimuli (Toledano, 2004). Using data from the National Comorbidity Survey in the U.S., Coleman, Coyle, Shuping & Rue (2011) reported a 95% increased risk of women developing PTSD following abortion compared to women with no history of abortion.

In a recent study of 405 women who had experienced a prior elective or spontaneous abortion, 32.6% ( $n = 132$ ) rated it as their index trauma (i.e., their worst or second worst lifetime exposure); among these women, the rate of PTSD during the subsequent pregnancy was 12.6%, the rate of depression was 16.8%, and 5.4% met criteria for both disorders (Hamama *et al.*, 2010). Kersting and colleagues (2005) concluded that after an abortion, a degree of enduring posttraumatic stress response is still detectable several years after the event and that this degree of grief did not differ from that of women 14 days after abortion. Borins & Forsythe (1985) found that abortion and trauma were significantly correlated. In a Belarussian sample, Speckhard & Mufel (2003) reported that 50% of women who had abortions met the threshold criteria for PTSD. In a comparison of American and Russian women with a history of abortion, PTSD was more prevalent in American women (Rue, Coleman, Rue & Reardon, 2004). Examining symptom domains preabortion and 1 and 3 months later in a South African study, nearly one fifth of the sample met criteria for PTSD. The percent

of women who met PTSD criteria increased by 61% from pre-abortion baseline to 3 months post-abortion (11.3 to 18.2) (Suliman *et al.*, 2007). And finally, in two French studies, up to 5% of women who experienced an abortion reported PTSD (Denis *et al.*, 2011), and 38% in another study six weeks after an abortion (Rousset *et al.*, 2011).

## **Alcohol & Drug Use and Abortion**

Alcohol/substance dependency has been linked to abortion. Drinking, drugs, or eating disorders may be engaged as attempts to calm hyperarousal states and physiological reactivity (Coleman *et al.*, 2002; Coleman *et al.*, 2005; Coleman, Coyle, Shuping & Rue, 2009 & 2011; Coleman *et al.*, 2009; Coleman, 2006; Dingle *et al.*, 2008; Fergusson *et al.*, 2006; Fergusson *et al.*, 2008; Fergusson *et al.*, 2009; Hope *et al.*, 2003; Mota *et al.*, 2010; Pederson, 2007; Reardon & Ney, 2002; Reardon *et al.*, 2004; Steinberg & Finer, 2011; Yamaguchi & Kandel, 1987). In her meta-analysis, Coleman (2011) found a 110% increased risk of alcohol dependence and 250% increased risk for marijuana use following abortion. The high association between abortion and alcohol and substance use/misuse was also reported by Fergusson *et al.*, 2011).

Substance abuse involves the misuse of alcohol, tobacco, illegal and legal drugs, and/or other mood-altering substances which are associated with numerous mental and physical health problems. Research published in both the U.S. and internationally has shown a consistent and statistically significant association between abortion and substance abuse of various forms. The increased risk of substance abuse is estimated to be as high as 6 times greater among women who have aborted compared to women who have not aborted. Several of the studies comprising the world literature used pregnant women who delivered as the comparison group, with a few studies employing unintended pregnancy carried

to term as the comparison group (Coleman, Reardon, Rue & Cogle, 2002; Coleman, 2005; Coleman, Reardon & Cogle, 2005).

Abortion decision-making often involves conflicting values and pressures which can result in considerable ambivalence. Women often describe this difficult decision making process and regret their abortion. When women feel their abortion decision was not their own, and that they were inadequately prepared for their abortion, significant symptoms of guilt, anxiety, and shame arise. Substance use can be a dysfunctional coping mechanism in which women self-medicate to numb intrusive and painful feelings of loss, grief and traumatic stress. If untreated, these women may increasingly rely upon avoidance as their primary defense mechanism which in turn is more likely to decrease the probability of abortion trauma resolution and reconciliation. As addictive disorders characteristically rely upon denial and rationalizations, post-abortion trauma can be compounded by the profound aftereffects of substance abuse and the significant personal and interpersonal toll they can exact.

### **Suicide and Abortion**

A number of researchers have examined the relationship between induced abortion and suicidal ideation/suicide: Coleman, 2011; Coleman, Coyle, Shuping & Rue, 2009 & 2011; Congleton & Calhoun, 1993; Fergusson *et al.*, 2006; Fergusson *et al.*, 2008; Fergusson *et al.*, 2009; Gilchrist *et al.*, 1995; Gissler & Hemminki, 1999; Gissler *et al.*, 1996; Gissler *et al.*, 2004; Gissler *et al.*, 2005; Mota *et al.*, 2010; Reardon *et al.*, 2002; Rue *et al.*, 2004; Russo & Denious, 2001; Speckhard & Mufel, 2003; Steinberg *et al.*, 2011.

In a longitudinal study conducted in New Zealand, Fergusson *et al.*, 2008 found a 61% increased risk of suicidal ideation compared to women whose unintended pregnancy

was delivered. Coleman (2011) reported a 155% increased risk of suicide/self-harm after an abortion compared to women with no abortion history, and a population attributable risk of 34.9%. Similar findings have been reported elsewhere. From the Finnish national health and death registries, Gissler and colleagues (1996, 2004, 2005) acknowledged that their data clearly showed that women who have experienced an abortion have an increased risk of suicide. They found the suicide rate associated with induced abortion was over three times higher than in the general population and almost six times higher than among women who gave birth.

According to Jamison, a survivor of multiple suicide attempts: "In short, when people are suicidal, their thinking is paralyzed, their options appear sparse or non-existent, their mood is despairing, and hopelessness permeates their entire mental domain. The future cannot be separated from the present, and the present is painful beyond solace." In short, it is a life marked by unbearable torment, no hope of relief, and an acceptance that even death could not be worse.<sup>36</sup>

#### 4. GRIEF & TRAUMA

A number of clinicians and researchers have examined and reported on grief reactions following abortion: Angelo, 1992; Angelo, 1995; Broen *et al.*, 2005; Congleton & Calhoun, 1993; Fergusson *et al.*, 2009; Freed & Salazar, 1993; Kero *et al.*, 2000; Kero *et al.*, 2001; Kero *et al.*, 2004; Kersting *et al.*, 2005; Massé & Phillips, 1998; Ney *et al.*, 1993; Peppers, 1987-88; Prommanart *et al.*, 2004; Ring-Cassidy & Gentles, 2002; Shuping & McDaniel, 2004; Soderberg *et al.*, 1998; Williams, 2001.

---

<sup>36</sup> Jamison, K. (1999). *Night Falls Fast: Understanding Suicide*. New York: Alfred A Knopf, pp. 92-93.

Grief is a universal emotional response to loss and/or death. Mourning is the process whereby grief is resolved.<sup>37</sup> Mourning responses to loss and death, however, are not universal, and are subject to considerable cultural, familial and individual differences.<sup>38</sup> In most cultures, taboos surround the discussion of death as well as induced abortion. In the Buddhist tradition, Rand acknowledged: "I see remarkable grief in people as an aftermath to abortions and miscarriages and no container in which to heal that grief."<sup>39</sup>

While grief may be culturally proscribed, it is always a uniquely individual experience and its resolution ultimately rests upon the individual. Because the nature of grief is highly personal and subjective, the process and timing of grief resolution is likewise individually determined. Typically, when symptoms of grief persist longer than one year, pathological or complicated grief is evident.

## Complicated Mourning

After an abortion, if women and/or men begin to feel sadness and loss, they are most often left alone to deal with their conflicted feelings (i.e., relief that the crisis is over but sadness and guilt over their involvement). The interpersonal, sociocultural, and symbolic network through which an

---

<sup>37</sup> Raphael, B. (1983). *Anatomy of Bereavement*. New York: Basic.

<sup>38</sup> For example: in China the early April *Qing Ming Jie* "bright and clear" festival occurs in which ancestors are remembered. For some this mourning ritual includes "the unborn one" from an induced abortion. Mosher, S. (1983). *The Broken Earth: The Rural Chinese*. New York: Free Press, 261; in Taiwan, the ritual is *yingling gongyang*. Moskowitz, M. (2001). *The Haunting Fetus: Abortion, Sexuality and the Spirit World in Taiwan*. Honolulu: University of Honolulu Press; in Japan the ritual is "Mizuko kuyō." LaFleur, W. (1999). *A comment concerning abortion rites in Japan*. *Journal of Japanese Studies*, 25:2, 493-498.

<sup>39</sup> Rand, Y. (1994). The Buddha's way and abortion – loss, grief and resolution. *Mind Moon Circle*, Autumn, 5-8.



individual's relationship to mortality is mediated in her or his society is described by Kastenbaum as "the death system."<sup>40</sup> Unlike other deaths, abortion is shrouded in silence with the "death system" failing to recognize or legitimize the loss. Abortion, as a type of pregnancy loss, is often unspeakable because there is no funeral, death certificate, or designation of mourner status. In the case of spontaneous or induced abortion, legally the unborn child was never a human being. Rando and Worden noted however that "regardless of the type of abortion, there is still the loss of a child involved,"<sup>41</sup> and because this involves the "loss of a person, grief work must be done."<sup>42</sup> Husbands, families, friends, physicians, professional counselors, judges and juries find it difficult to comprehend how such early losses can have such enormous emotional impact. When an abortion is traumatic, and cannot be openly acknowledged, publicly mourned or socially supported, the woman or man lives in isolation and consuming silence. For such an individual, grief is "disenfranchised."<sup>43</sup>

The resolution process for this kind of grief is described as "complicated mourning" and can be further compounded by traumatic reexperiencing and intrusiveness followed by efforts to deny and avoid any pregnancy meaning and attachment memories.<sup>44</sup>

---

<sup>40</sup> Kastenbaum, R. (1977). *A larger perspective: The death system*. In *Death, Society & Human Experience*. St. Louis, Mo.: C.V. Mosby, 76-97.

<sup>41</sup> Rando, T. (1984). *Grief, Dying and Death: Clinical Interventions for Caregivers*. Champaign, Ill.: Research Press, 132-133.

<sup>42</sup> Worden, W. (1991). *Grief Counseling and Grief Therapy*. New York: Springer, 104.

<sup>43</sup> Doka, K. (1989). *Disenfranchised Grief*. New York: Harbinger.

<sup>44</sup> "Complicated bereavement or mourning" is not identified in the DSM-IV. While uncomplicated bereavement is included, the non-linear process of grief resolution is well documented. With accompanying symptom re-experiencing and mood disorder, the question arises whether the mood disorder would have ever occurred without the loss. See Hartz, G. (1986). Adult grief and its Interface with mood disorder: Proposal of a new diagnosis of complicated bereavement. *Comprehensive Psychiatry*, 27, 60-64.

If elective abortion is nothing more than the removal of nondescript cells or tissue, then it would be highly unlikely that such a procedure could cause any significant psychological harm, much less be traumatic or grief inducing. On the other hand, if elective abortion is an intentionally caused human death experience, then it is likely that *some* women, men and significant others could manifest profound symptoms of depression, grief and traumatic loss.

### *Self-Disenfranchisement & Abortion*

Even in research where identifying information is unavailable and the respondent is anonymous, there is clear evidence that women are uncomfortable acknowledging a past abortion. This may be largely driven by guilt, shame and stigma (Illsley & Hall, 1976; Major & Granzow, 1999). This reluctance to disclose is evident in relationships with loved ones, friends, pastors, attorneys, psychotherapists, health care providers and researchers. This underreporting is a chronic and unresolved issue that significantly limits our knowledge of post-abortion adjustment. It also significantly impacts the likelihood a woman or man will acknowledge their abortion experience to another and become appraised that they are not alone and that helping services are available.

One of the reasons women and men face a difficult time in acknowledging their abortion experience concerns the intrapsychic aspect to the sociological reality of disenfranchised grief, namely, self-disenfranchisement.<sup>45</sup> Self-disenfranchisement employs a perception of a "damaged self." In so doing, one's belief and trust in the self and the self in relation to others is compromised. The interaction between societal and self-disenfranchisement can be both cause and effect and can result

---

<sup>45</sup> Kauffman, J. (1989). Intrapsychic dimensions of disenfranchised grief. In Doka, K. (ed.). *Disenfranchised Grief*. Lexington, MASS: Lexington Books, 25-42.

in shame-binding and secrecy-inducing feelings. The aftereffects of the legal abortion chosen by Christine Grimbol, who is a public supporter of abortion rights are illustrative:

*The hardest part for me was after the abortion. I felt real ashamed. Even though abortion was legal, I felt the only people who approved were me, my doctor, and this man who was involved with me. I felt the few other people who knew were thinking, 'It's over. Let's pretend it never happened. Let's never talk about it.' I had no way to deal with what I had just done. The abortion became another secret in my life.*<sup>46</sup>

In many cultures, death is an unspeakable pain which generates profound feelings of loss, guilt, shame and grief. Indeed, the defense mechanisms of denial, repression and suppression require and necessitate the maintenance of silence to ward off intrusive feelings of anxiety, pain and stress. It is this same silence that perpetuates self-disenfranchised grief after abortion.

Silence provides the tomb for many secrets. According to Klein, three out of four people surveyed keep sexual secrets, like abortion, from their partners and even sometimes from themselves.<sup>47</sup> By not acknowledging an abortion experience to one's self and/or to one's significant others, a psychological barrier is erected and the likelihood of developing adverse psychological sequelae is increased. Coupled with denial, avoidance of abortion-related trauma can occur on a number of levels: (1) avoidance of affect/feelings (numbing); (2) avoidance of knowledge of the event (amnesia); (3) behavioral avoidance (phobic responses); and (4) avoidance of communication about the event (interpersonal distancing).<sup>48</sup>

---

<sup>46</sup> Grimbol, C. (1991). The Reverend Christine Grimbol. in Bonavoglia, A. (ed). *op. cit.*, p. 198.

<sup>47</sup> Klein, M. (1987). Sexual Secrets. Paper presented at the annual meeting of the Society for the Scientific Study of Sex, Beverly Hills, CA.

<sup>48</sup> See generally: Peterson, K., Prout, M. & Schwarz, R. (1991). *Post-Traumatic Stress Disorder: A Clinician's Guide*. New York: Plenum Press.

*Breaking the Interpersonal Bridge*

According to Kaufman's typology, in self-disenfranchised grief, the individual is responsible for the lack of acknowledgement and acceptance of the painful aftereffects of the loss. The primary psychological factor inhibiting the recognition of feelings of grief is shame. One then is disenfranchised by or ashamed of one's own feelings of shame. It is common for one to feel shame in the face of normal guilt, particularly when human life and death are involved. Shame and its related feelings of alienation and inferiority can be directly attributable to experiences that are defined as "breaking the interpersonal bridge" as discussed by Kaufman. This occurs when: (1) the familiar becomes foreign; (2) others are depersonalized; (3) there is a failure to act in accordance with internalized concepts of responsibility; (4) internalized values are transgressed; (5) trust is broken down; and (6) stigmatization and isolation result.<sup>49</sup> Shame and guilt are clearly principal components of traumatization, hence, the grief and trauma link.<sup>50</sup> If abortion is an intentionally caused human death event, then it is likely that the effects of "breaking the interpersonal bridge" are considerable and psychologically serious.

When guilt is inhibited, it can lead to complicated mourning. Guilt that is unsanctioned and shame-covered in the mourning process will have consequences commonly associated with guilt complications in impacted and pathological grief, i.e., recurrence of the unresolved guilt produces conflicts in other relationships, fears of abandonment, self-destructive behaviors, anger, feelings of inadequacy, and depression. Ashamed of one's behavior and emotions, the individual may experience a disorder of one's

---

<sup>49</sup> Kaufman, J. (1989). Intrapsychic dimensions of disenfranchised grief. In Doka, K. (ed.). *Disenfranchised Grief*. Lexington, MASS: Lexington Books, pp. 26-29.

<sup>50</sup> Wong, M. & Cook, D. (1992). Shame and its contribution to PTSD. *Journal of Traumatic Stress*, 5 (4), 557-562.

sense of self, such as emotional numbing, dissociation, self-alienation, and a damaged sense of ego-mastery.<sup>51</sup>

Assessing the impact of abortion may not be as simple as some have suggested. In her book entitled *Parental Loss of a Child*, Rando included a chapter on induced abortion, in which Betty Harris reported three obstacles to identifying negative responses following abortion: (1) masking of emotional responses may occur both at the time of the abortion and in later contacts with professionals. If grief persists it may surface in disguised form and be expressed behaviorally or in psychosomatic complaints; (2) 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; and (3) if the caregiver has ambivalent or unresolved feelings about abortion this may interfere with the accurate assessment of post-abortion trauma and the establishment of trust and the ability to be patient and empathic.<sup>52</sup>

A number of factors may contribute to unresolved grief and may act as "escalators" toward further self-alienation. These include but are not limited to stigmatized deaths, parental bereavement, personal and societal denial, a high degree of ambivalence and dependency, isolation, concurrent crises, age and gender, reduced resources, perceived lack of partner support and a "breaking of the interpersonal bridge."<sup>53, 54</sup>

---

<sup>51</sup> Kaufman (1989), *op. cit.*, page 27.

<sup>52</sup> Harris, B. Induced abortion. In T. Rando (ed.) *Parental Loss of a Child*. Champaign, Ill.: Research Press, 1986, 241-256.

<sup>53</sup> The manifestation of disenfranchised grief that is unresolved can also include: (a) persistent yearning for recovery of the lost object; (b) overidentification with the deceased; (c) the wish to cry or rage at the loss coupled with an ability to do so; (d) interlocking grief reactions; (e) unspoken but powerful contracts with the deceased; (f) unrevealed secrets and unfinished business; (g) lack of support group and alternative options; and (h) secondary gain or reinforcement from others to remain grief stricken. Melges, F. & DeMaso, D. (1980). Grief-resolution therapy: Reliving, revising and revisiting. *American Journal of Psychotherapy*, 24(1), 51-60.

<sup>54</sup> Sanders, C. (1993). Risk factors in bereavement outcome. In Stroebe,

While women and families who have experienced Sudden Infant Death Syndrome (SIDS), stillbirth or neonatal death have generally received more sympathy and sensitivity to their loss, women and men who have experienced induced abortion have not received similar treatment even though there is substantial evidence to suggest that women form attachment and develop an affectional bond to their unborn child very early on in gestation.<sup>55</sup> Recent research suggests that grief responses from these broken attachments occur pre-abortion and occur irrespective of wantedness.<sup>56</sup> When pregnancy loss occurs, both the parent and the relational context commence a unique journey that can alter life in a host of profound and often negative ways.<sup>57</sup>

Intense grief can be recognized in depression, sadness, numbness, and even denial – all having a temporal relationship to the major loss. Numbness may turn to intense suffering, followed by emptiness and distancing from others. The loss can be repeatedly reprocessed during awake hours and re-experienced in dreams and nightmares. Physical symptoms may also be common as well – weakness, sleep disturbance, loss of appetite, headaches, back pain, indigestion, shortness of breath and even heart palpitations.<sup>58</sup>

Posttraumatic stress responses and grief reactions have each been separately identified in the literature. How they

---

M. et al. (eds.) *Handbook of Bereavement*. New York: University of Cambridge Press, 255-267.

<sup>55</sup> Kennell, J. Slyter, H. & Klaus, M. (1970). The mourning response of parents to the death of a newborn infant. *New England Journal of Medicine*, 283, 344.

<sup>56</sup> Peppers, L. (1987). Grief and elective abortion: Breaking the emotional bond? *Omega*, 18, 1-12.

<sup>57</sup> Jordon, J. (1990). Loss and Family Development: Clinical Implications. Paper presented at the Annual Meeting of the American Psychological Association. Boston, Massachusetts.

<sup>58</sup> Staff (1987). Bereavement and Grief - Part 1. Harvard Medical School Mental Health Letter, March, 4.

interact with respect to induced abortion remains to be fully explicated. From the existing literature, a traumatic event may greatly enhance the probability of developing pathological grief reactions,<sup>59</sup> and may simultaneously complicate diagnostic and early intervention efforts.<sup>60</sup>

In Michels' textbook, *Psychiatry*, it is clear that some circumstances are more likely to increase the severity or duration of grief reactions and traumatization:

*These include pre-existing high dependency on the deceased, pre-existing frustration or anxiety in relating to the deceased, unexpected or torturous deaths, a sense of alienation from or antagonism to others, a history of multiple, unintegrated earlier losses or simultaneous losses, and real or fantasized responsibility for the suffering or death itself. When several of these factors are present, a complicated bereavement reaction may result that warrants diagnosis as one of the anxiety or depressive disorders (including Post-traumatic Stress Disorder), an adjustment disorder, reactive psychosis, or a flare up of a pre-existing personality disorder.*<sup>61</sup>

According to Rynearson, individuals bereaved by "unnatural dying," i.e., severely traumatic losses, are likely to experience intrusive, vivid and repetitive images of the death, often interfering with cognitive processing.<sup>62</sup> Research now suggests that PTSD may in fact be a consequence of an unanticipated death experience and complicate the outcome and resolution

---

<sup>59</sup> Eth, S. & Pynoos, R. (eds.) (1985). *Post-Traumatic Stress Disorder in Children*. Washington, DC: American Psychiatric Association.

<sup>60</sup> Stamm, B.H. (1992). *Post-Traumatic Stress Disorder in Siblings of Deceased Children*. Unpublished manuscript.

<sup>61</sup> Horowitz, M. (1990). Stress-response syndromes: post-traumatic and adjustment disorders. In Michels, R. *et al.* (eds.) *Psychiatry*. Philadelphia: J.B. Lippincott, p. 8.

<sup>62</sup> Rynearson, M. (1987). Psychotherapy of pathologic grief: Revisions and limitations. *Psychiatric Clinics of North America*, 10, 487-500.

of this type of loss.<sup>63</sup> Hence, PTSD-complicated bereavement is likely to be differentiated from non-PTSD bereavement by the intrusive phenomena that often reflect the scene of the death or other traumatic images, hyperarousal, nightmares, and other ongoing reexperiencing or avoidant phenomena.<sup>64</sup>

## Traumatic Grief and Abortion

Jacobs (1999) defined traumatic grief as a disorder that occurs after a traumatic death of a loved one. Symptoms of separation distress are the core of the disorder and combine with bereavement specific symptoms of being devastated and traumatized by death. Symptoms must be marked and persistent and last at least two months. The symptomatic disturbance causes clinically significant impairment social, occupational, and other areas of functioning. The term “traumatic” describes a subjective experience of the death. The term “traumatic grief” captures the underlying dimensions of the disorder: first, separation distress caused by the loss of a loved one, and second, traumatic distress, reflecting feelings of helplessness and devastation by the death.

Traumatic grief shares some of the same symptom constellation with post-traumatic stress disorder yet can be considered different.<sup>65</sup> To a large extent though, trauma includes significant aspects of grief. In traumatic grief, the symptoms of separation anxiety are a function of a wish to

---

<sup>63</sup> Parkes, C. & Weiss, R. (1983). *Recovery from Bereavement*. New York: Basic Books.

<sup>64</sup> Middleton, W., Raphael, B., Martinek, N. & Misso, V. (1993). Pathological grief reactions. In Stroebe, M. et al. (eds.), *Handbook of Bereavement: Theory, Research & Intervention*. New York: University of Cambridge Press, 44-61.

<sup>65</sup> Traumatic grief is also differentiated from bereavement-related depression and anxiety. See: Boelen, P.A., van den Bout, J. & de Keijser, J. (2003). Traumatic grief as a disorder distinct from bereavement-related depression and anxiety. *American Journal of Psychiatry*, 160(7): 1339-1341.



be reunited with the lost loved one rather than an intrusive, fearful re-experiencing of a horrifying event according to Thevathasan (2002). Post-Abortion Traumatic Grief (PATG) as a proposed diagnostic entity is presented in Table 2.

Some post-abortive women experience dread when confronted by reminders of the abortion event (PTSD). Others may seek out reminders in order to cope with the loss. They may even have an “atonement baby” in circumstances similar to the abortion context but with hope for a different outcome. Some of these women, however, will seek out the opportunity to revisit and revise their abortion decision by carrying to term so as to undo their previous feelings of helplessness. Sadly, some will go on to have their next abortion reinforcing their sense of failure and lowered self-esteem.

If a woman or man is grieving and experiencing separation anxiety, accompanying symptoms may consist of yearning, searching and loneliness. When there is concurrent traumatic distress, a woman or man may also be experiencing numbness, disbelief, distrust, anger and a sense of futility about the future. PATG captures both dimensions of a person’s response. Avoidance is not a prominent feature of PATG but is prominently evident with PTSD.

Like PTSD, PATG is also associated with alcohol and drug misuse/abuse and suicidal ideation. Individuals do not typically present for abortion-related psychological symptoms. Rather they are more likely to seek professional or pastoral care for relationship issues, or personal struggles with anxiety or depression. Yet without clinical exploration, the underlying problem, i.e., post-abortion trauma, can thus easily go unrecognized and untreated and treatment progress may be thwarted. Anniversary reactions are also commonly identified in post-abortion trauma, but these too remain unidentified unless the meaning is explored with the individual and the timing of reoccurrence is questioned.

PATG is differentiated from normal bereavement when the following symptoms of major depression are present:

a) *guilt about things other than actions taken or not taken by the survivor at the time of the death*

b) *thoughts of death other than the survivor feeling that he or she would be better off dead or should have died with the deceased person*

c) *morbid preoccupation with worthlessness*

d) *marked psychomotor retardation*

e) *hallucinatory experiences other than thinking that he or she hears the voice of, or transiently sees the image of the deceased.*

## 5. POST-TRAUMATIC STRESS DISORDER

*PTSD is caused by contact between the individual and the darkest and most violent forces of human nature. War, murder, rape, etc., take the victim over the edge of life into serious confrontations with death or uncontrolled violence. Some individuals are thereby transformed and become, at some level, bearers of the traumatic experience.*<sup>66</sup>

As identified earlier, traumatic deaths typically tend to produce posttraumatic reactions in the mourner. They overwhelm stress management capabilities and shatter a person's sense of control, safety, connection and meaning. According to Rando, the mourner is at particularly high risk for developing posttraumatic stress if, while being involved in the same traumatic event that took the life of the loved one, she has feared for her own life (i.e., the trauma involved a serious threat of death), felt helpless and powerless (i.e., the

---

<sup>66</sup> Blank, A. (1985). Irrational reactions to post-traumatic stress disorder and Vietnam veterans. In Sonnenberg, S., Blank, A. & Talbott (eds.) *The Trauma of War: Stress and Recovery in Vietnam Veterans*. Washington, D.C.: American Psychiatric Press, p. 88.

event was beyond individual control), and had no forewarning (i.e., the event was shocking and unanticipated).<sup>67</sup>

The central conflict of psychological trauma is the unsuccessful attempt to deny the horror of the event experienced which is countered by the unsuccessful attempt to express one's overwhelmed feelings. The individual is "stuck," haunted by images that can neither be enacted nor relinquished. Only when the truth of the trauma is recognized can survivors begin recovery. When secrecy prevails, the story of the traumatic event surfaces not as a verbal narrative but as a symptom. These psychological distress symptoms of traumatized individuals simultaneously call attention to the existence of such an unspeakable secret and at the same time deflect attention away from it.<sup>68</sup> This is most readily apparent when traumatized persons alternate between feeling numb and reliving the traumatic event.

There is evidence that when the stressor producing the trauma is of human design that the reactions are more severe and longer lasting.<sup>69</sup> In her analysis of psychological trauma, Herman concluded:

*But when the traumatic events are of human design, those who bear witness are caught in the conflict between victim and perpetrator. It is morally impossible to remain neutral in this conflict. The bystander is forced to take sides... When the victim is already devalued (a woman, a child), she may find that the most traumatic events of her life take place outside the realm of socially validated reality. Her experience becomes unspeakable. The study of psychological trauma must constantly contend with this tendency to discredit the victim or to render her invisible.*<sup>70</sup>

---

<sup>67</sup> Rando, T. (1993). *Treatment for Complicated Mourning*. Champaign, Ill: Research Press.

<sup>68</sup> Herman, J. (1992). *Trauma & Recovery*. New York: Basic.

<sup>69</sup> American Psychiatric Association (1987). *Diagnostic and Statistical Manual of Mental Disorders III-Revised*. New York: American Psychiatric Press, page 248.

<sup>70</sup> Herman, *op. cit.*, page 7-8.

## Diagnostic History

As a diagnostic entity, posttraumatic stress disorder was first identified in its present form in 1980 in the DSM-III. Many individuals who suffer PTSD are not properly diagnosed and fail to receive adequate help. It is estimated that there are more than 5.2 million Americans suffering from PTSD in any given year. Worldwide, estimates vary from 3% in China to 6.1% in New Zealand. However, certain stressors are more likely than others to consistently produce symptoms of traumatic stress: war, rape, death of a child, violent and unexpected assault, etc.

Nevertheless, 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. Contrary to political correctness or minimization by mental health practitioners, nowhere is this more important than affirming the perception of the woman who has experienced a traumatic abortion. One young woman spoke for many when she acknowledged: "The abortion was the most horrible experience of my life." Sadly, this is not exceptional. What is exceptional is the lack of societal affirmation.

In 1987, the American Psychiatric Association in its *Diagnostic and Statistical Manual of Mental Disorders III-R* (DSM III-R) listed abortion as a type of "psychosocial stressor." As such, psychosocial stressors are capable of causing PTSD as well as various other psychological disorders. While abortion was listed in the DSM-III-R as a type of psychosocial stressor, it along with "physical illness or injury" have been omitted entirely from DSM-IV. Instead, the only V code applicable in DSM-IV on Axis IV (Psychosocial and Environmental Problems) is "Problems with Primary Support Group - Parent-Child (V61.2) that mentions "death of a family member." This may be changed yet again in the near future in the DSM-V.

Also in the DSM-IV, a new diagnostic criteria for anxiety disorders was presented for the first time, i.e., Acute Stress Disorder (ASD). Many of the same symptoms of PTSD are incorporated into this new diagnosis. A major difference between PTSD and ASD is that symptoms must occur within four weeks of the stressor, and last for a minimum of two days and a maximum of four weeks after the event. Under section F, the following section has particular relevance regarding abortion:

*The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning, or the individual is prevented from pursuing some necessary task, such as obtaining medical or legal assistance or mobilizing personal resources by telling family members about the traumatic experience.*

## **Characteristic Symptoms**

Traumatized individuals experiencing PTSD are typically conflicted and are unable to escape repetitive symptom cycles of hyperarousal, intrusion/reexperience and avoidance/denial. This biphasic cycle is the hallmark of the PTSD symptom cluster.

### *Intrusion/Reexperience*

Persistent and unwelcome intrusion/re-experience can be conceptualized as attempts to gain mastery over a traumatic event(s) that cannot be assimilated into an individual's life experiences. These can include: recurrent images, thoughts, dreams, illusions, flashback episodes, or a sense of reliving the experience; or distress upon exposure to reminders of the traumatic event. Significant disruption occurs in day to day functioning when associations or memory of the event reoccur, even if the event took place months or years earlier. Long after the trauma has ended, a traumatized person reexperiences this event as if it were indeed present now.

It is almost as if time stopped at the moment of trauma; emotions, memory and cognition are frozen deep within, yet seemingly are buried alive. Encoded in memory, the traumatic moment can instantly break through into consciousness in flashbacks during waking states and as horrific nightmares during sleep. Small events, sights, sounds or associations can become “triggers” alerting internal hypervigilance that danger is eminent. Thus, even safe environments can never fully reassure the individual because danger may recur at any time. Normal psychosocial development is often arrested by trauma.

Additionally, traumatic memories lack verbal narrative and context but are instead encoded in the form of vivid and frightening sensations and images that are “frozen” into the heart and mind.<sup>71</sup> So indelible and painful, Lifton characterizes the traumatic loss of life as a “death imprint,” i.e., repetitive intrusion of the death image and accompanying feelings of shock, fear, and helplessness.<sup>72</sup>

While reliving a trauma may offer an opportunity for mastery and/or meaning, most survivors dread and fear it. Reliving the traumatic event carries with it the original intensity of rage, anger, fear, helplessness and horror. Unfortunately, efforts to avoid reexperiencing do not produce success but rather exacerbate posttraumatic decline by narrowing one’s consciousness, withdrawing from activities with others and eventuating in an emotionally impoverished life.<sup>73</sup>

### *Avoidance/Denial*

In an attempt to regulate affect that is overwhelming, traumatized individuals engage a system of self-defense that

---

<sup>71</sup> Herman, J. (1992). *Trauma & Recovery*. New York: Basic Books.

<sup>72</sup> Lifton, R. (1980). The concept of the survivor. In Dimsdale, J. (ed.) *Survivors, Victims, and Perpetrators*. New York: Hemisphere, 113-126.

<sup>73</sup> Herman, (1992) *op. cit.*, page 42.

shuts down feelings when nearing overload. A traumatized person who is feeling helpless is likely to dissociate by splitting off painful memories from ordinary awareness thereby altering her/his consciousness and “freeze.” Walled off from ordinary consciousness, the integration of memories is not possible and hence neither is healing. Perceptions may be numbed or distorted in whole or in part. Memory impairment and trauma amnesia are common. Time sense is often altered frequently with the individual feeling in “slow motion.” The person may feel as though the trauma is not happening or feels that the event is being observed outside her/his body as in a bad dream, i.e., depersonalization. This dissociative state is likely to produce considerable confusion, indifference, emotional detachment, and profound passivity as personal initiative and self-directiveness are diminished.

Dr. Elizabeth Karlin, an abortion provider (now deceased) in the U.S. testified in a deposition that she included PTSD as an outcome category in abortion patient medical forms. According to her testimony, it was not uncommon that the patient went someplace in their head during the procedure. When this happened, she also testified: “What we observe is that they speak in a different voice. They may talk baby talk. They may speak to somebody who is not there. They may make sucking noises like a baby.”<sup>74</sup>

Another aspect of avoidance/denial is the development of a constrictive perspective and symptoms. These may interfere with anticipation and future planning, i.e., a sense of foreshortened future. New opportunities for integration and growth are thwarted. Even though constrictive symptoms are basically self-protective, over time the price of constriction is considerable, narrowing and depleting an individual’s

---

<sup>74</sup> Deposition of Dr. Elizabeth Karlin, *Karlin v. Foust*, Fed. Dist. Ct. 96 (C) 0374-C, August 26, 1996 at 57.

choices, quality of life and ability to recover from the trauma. The trauma victim is caught between the extremes of amnesia and of reliving the trauma, between floods of intense, overwhelming feeling and arid states of no feeling at all, between irritable, impulsive action and complete inhibition of action. The instability produced by these periodic alternations further exacerbates the traumatized person's sense of unpredictability and helplessness. The dialectic of trauma is therefore self-perpetuating and not amenable to spontaneous recovery.<sup>75</sup>

Avoidance/denial (not otherwise present prior to the incident trauma) then includes distancing and detaching from thoughts, feelings, conversations, activities, places and people that serve as reminders of the traumatic event, or psychogenic amnesia or numbing. As a result, these traumatized individuals only display a restricted range of affect (often lacking in warm and loving feelings) and believe they have a foreshortened future.

### *Hyperarousal*

After experiencing a traumatic event, hyperarousal manifests in a number of commonly seen symptoms. It is as if the human system of self-preservation goes on permanent alert, fearing that the traumatic event/danger may return at any moment. Physiological arousal can also continue on unabated. During this phase of posttraumatic dysfunctioning a person startles easily, reacts irritably to small provocations, and sleeps poorly, thereby decreasing coping abilities, and heightening reflexive and hyperreactive responses. Over time the maintenance of hypervigilance requires considerable psychic energy and the attention, focus and motivation to remain engaged in life's myriad activities and responsibilities diminishes.

---

<sup>75</sup> Herman, (1992), *op. cit.*, p. 47.



*A Clinical Example*

A 35 year old woman came for evaluation of post-abortion problems. She had seen numerous therapists, attempted spiritual resolution, attended self-help groups for women emotionally injured from their abortions, and tried several unsuccessful courses of antidepressant and hypnosedative medications. Before her abortion she had experienced several other traumas, including incest and date rape. She was also bulimic. Her abortion experience compounded her already fragile emotional state. Additionally, her several predisposing risk factors for post-abortion trauma were not evaluated in the counseling she received beforehand and her coping abilities were simply overwhelmed. In addition, she attempted to stop the abortion before it was started, but the doctor dismissed her repeated requests. In her own words:

*I feel like I am falling down a very deep hole, dark and damp, grungy and grimy. The sadness at work is unbearable. I want to grab that baby back and place it inside of me. I feel drained, achy, violated and abused. When I took the sleeping pill, in 20 minutes I started feeling like I did when the doctor gave me Demerol and Valium for the abortion. I started to panic. I felt like I was going out; my legs numbed and I felt unable to control anything. I think when I sleep more feelings surface. Without sleep I stay numb. I feel angry and depressed. The tears freely form whenever I am alone ... they come out from hiding, revealing thoughts I don't yet know I have. But my tears know... and they come. They visit at dark; I wonder if they will ever leave.*

*The Saturdays (the day of the abortion two and one half years earlier) of my life hold funeral services for my baby and me. This must explain why I feel numb ... my legs, my arms, my hands, like my daughter they are appendages and like her they are dead.*

*It's easier to be into food than it is to acknowledge how I feel. I grieve the loss of my baby and I feel despair because I know I can't bring her back and I know I can't replace her. I fear that my one living child will be taken from me. I cling to my son to somehow hold onto my baby.*

*I freak when my menstrual blood smears my thighs, hurling me back to the gurney and the abortion. The way I knew my baby was dead was by waking and seeing the blood on my thighs. I fall apart when I see pregnant women. I turn away when I see babies. I change check-out lanes in the supermarket to avoid being too close to them. My abortion was self-destructive. I have intense, uncontrollable anger and rage. I feel barren and I can't forgive myself. I have terrible nightmares of throwing my baby down on the floor in the kitchen. In one dream I chopped off my hair, a vital part of me. I also dreamt that I slit my wrists. The world keeps the wound alive. I am alive, just half of me, half of us, maybe. I laid on the floor last night for three and a half hours crying, curled up like a fetus.*

## 6. POST-ABORTION SYNDROME

Post-Abortion Syndrome (PAS) is a type of posttraumatic stress disorder 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. The use of a separate term delineating the psychological injury from abortion is deliberate and intended to: (1) easily communicate a constellation of abortion-related psychological symptoms to the general public; (2) assist women and men to identify their traumatic abortion symptoms and feel less deviant and isolated from others who have had similar experiences; and (3) encourage women and men to speak out and seek help rather than be revictimized by those who would otherwise blame them for their painful abortion-related suffering.<sup>76</sup>

---

<sup>76</sup> The term post-abortion syndrome is now widely used in the public domain. Using the search term "post-abortion syndrome," Google identified 79,600 results, Google Scholar identified 548 results, and Lexis Nexis identified 44 results.

There are four basic components of PAS as a variant of PTSD:

- A) exposure to or participation in an abortion experience, i.e., the intentional destruction of one's unborn child*
- B) uncontrolled negative reexperiencing of the abortion death event, e.g., flashbacks, nightmares, grief, and anniversary reactions;*
- C) unsuccessful attempts to avoid or deny abortion recollections and emotional pain, which result in reduced responsiveness to others and one's environment;*
- D) experiencing associated symptoms of hyperarousal not present before the abortion including guilt about surviving.*

The diagnostic criteria for PAS are provided in Table 1; they were adapted from the diagnostic criteria for PTSD which were developed from the diagnostic assessment for PTSD by the American Psychiatric Association. At the present time, the American Psychiatric Association does not acknowledge post-abortion trauma in its official diagnostic nomenclature. However, neither are Battered Women's Syndrome, nor Rape Trauma Syndrome, both of which are types of PTSD and used, understood, and accepted as credible by mental health practitioners and courts worldwide.

Clinical experience suggests that spontaneous recovery from PAS is not likely, as is true with PTSD. Comorbidity includes other anxiety disorders, affective disorders, i.e., primarily depression, substance misuse/abuse, survivor guilt, and unresolved feelings of grief and shame. Trauma can also precipitate depression, panic disorders, and involve co-morbidity with addictions, eating disorders, etc. Intense flashbacks can lead to psychotic breaks in women and men who relive intensely distressing aspects of their abortion experience. Somatization also occurs with cervical pain with intercourse (flashbacks to the forced cervical opening in a vacuum or surgical abortion) and gaining weight as a psychological attempt to "regain" the pregnancy. Although

PAS is categorized here as a type of PTSD, additional diagnoses including adjustment, anxiety, and/or depressive disorders may concurrently be made as well.

More than an accidental grab bag of isolated symptoms, Post-Abortion Syndrome is conceptualized as a clustering of related and unsuccessful attempts to assimilate and gain mastery over abortion trauma. The resulting lifestyle changes involve partial to total cognitive restructuring and behavioral reorganization, most of which are maladaptive.

Those who propound the psychological safety of induced abortion argue that PAS is not a type of PTSD for three reasons: (1) abortion is not a death experience; (2) there is no participation or witnessing of violence; and (3) abortion is volitional in nature, i.e., intentionally caused. Each of these concerns will be addressed.

### **Criteria a: PARTICIPATION IN AN ABORTION EXPERIENCE**

*First*, regarding the nature of abortion, abundant research evidence and clinical experience with women traumatized by their abortion indicate that these individuals perceive the loss from their abortion as real and human, i.e., "my child." They often speak in horror of its violent death and their culpability for not protecting its life. These women report a number of behaviors which are confirmatory for them of the humanity of the fetus: talking with their baby in utero, feeling the baby's movement, sensing panic or death on the part of their child, or post-abortion, attempting or actually seeing human fetal parts post-procedure. The very real and human death event combined with the horror, fear and helplessness of the aborting woman are well within the definition of the Criteria A stressor necessary for identification of this syndrome.

On the other hand, if abortion is not a death experience, then any grief reactions are factitious and completely unwarranted. If abortion is a death experience, as these

women so indicate, then the feelings of sadness, guilt, loss and shame are normative yet overwhelming, because the death experience was intentionally caused. National polling indicates that half to a majority of Americans believe that abortion is immoral and in fact “murder”<sup>77</sup> – all of which implies a human death experience.<sup>78</sup>

One adolescent who elected abortion communicated this moral dilemma and the intrusiveness of feelings of complicity in the loss of her unborn child:

*Right after the abortion, every time I saw something on TV about abortion, or if I saw a real tiny baby somewhere, I'd think, 'What'd I do?' Sometimes I wished I hadn't done it. I didn't exactly like the idea of having an abortion. People look at you and go, 'You killed a kid. You killed a life.' I used to think, No, I didn't. I didn't. I didn't...*<sup>79</sup>

In a counseling manual used at some abortion clinics, Charlotte Taft wrote: “If you think murder is killing for no good reason, then abortion is murder only if you believe the fetus is a person and there are no good reasons.”<sup>80</sup>

*Secondly*, the abortion experience is often described as an invasive and violative procedure by the woman. Immediately after the abortion, many women attempt to view the fetal remains. For the fetal child, the in-utero dismembering and suctioning may certainly be defined as a violent action

---

<sup>77</sup> Los Angeles Times Poll. (1989, March 19; 2000, June 19). Times poll: Most Americans think abortion is immoral. *Los Angeles Times*, pp. 1; Gallup, (2002, January 22). Public Opinion About Abortion.

<sup>78</sup> “And I wondered if abortion shouldn't be added to the list (of abuse). Whether or not one admits that a foetus is a person and a child, one cannot scientifically deny that the foetus is genetically human and alive. It seems that the means of abortion would be considered ‘violent, coercive, and abusive behavior’ if they were committed against larger, more visible human beings.” Sutton, P. (1993) Letter to the Editor. *Journal of Marriage and the Family*, 19, 85.

<sup>79</sup> “Kathy” in Bonavoglia, A. (ed.) (1991), *op. cit.* p. 176.

<sup>80</sup> Taft, C. (1993). *Abortion Resolution Workbook*. Dallas, TX: author, p. 4.

undertaken by a health care provider.<sup>81</sup> The abortion experience is noticeably violent and often described as traumatic, e.g., in D&E abortions fetal dismembering and re-assembling is required; in saline abortions mortal in utero burning of the fetus occurs followed by the birth of the dead child; in medical abortions, women bleed considerably and see the expulsion of their embryonic or fetal child at home.

Although most women do not view abortion as life-threatening, some women with PAS speak of their considerable anxiety, fear and panic before, during and after the procedure. It is not uncommon to hear women describe this panic in phrases like: "I just knew something was going to go wrong and they would suck out something they weren't supposed to and that I might die." Former abortion clinic nurse Sallie Tisdale described abortion this way: "abortion is the narrowest edge between kindness and cruelty. Done as well as it can be done, it is still violence..."<sup>82</sup>

*Thirdly*, women electing abortion repeatedly indicate they believed they "had no other choice." Research seems to corroborate this desperation. Then too, many women feel either pressure or coercion to abort from the father of the child, family members, friends, doctors or counselors. Because trauma is worsened when the stressor is of human design, the volitional nature of the abortion decision predisposes a woman to posttraumatic symptomatology.

Regarding the intentionality issue, women traumatized by their abortion experience often feel there are situations when patients suffering with PTSD in fact have reasons to feel

---

<sup>81</sup> "Violence" is defined as: **1a.** an exertion of physical force so as to injure or abuse; **b.** an instance of violent treatment or procedure; **2.** intense, turbulent, or furious and often destructive action or force. *Webster's New Collegiate Dictionary*. Springfield, MA: Merriam-Webster, 1977, p. 1306.

<sup>82</sup> Tisdale, S. (1987). We do abortions here. *Harper's Magazine*, October, p. 70.

guilty. Peterson reported one such reason as the pathological identification of a "killer self."<sup>83</sup> Hence, it is precisely because of the volitional nature of the abortion decision that this event is largely perceived to be traumatic. On the other hand, some women with PAS frequently perceive their abortions as less than totally volitional. Some women feel their abortion was coerced, forced or was the only option available to them. Many feel that their consent was not informed. Moreover, volitional stressors have never been excluded from Criteria A assessment.<sup>84</sup>

If abortion is experienced as traumatic, the symptomatic responses may be many and varied. They can include: a variety of autonomic, dysphoric and cognitive symptoms. Dissociative states may occur lasting from a few minutes to several hours or even days during which components of the abortion are relived and the individual behaves as though she was reexperiencing the event at that moment, or she simply goes away to some other place in her mind, far removed from reality and her abortion memories. Impulsive behaviors, increased irritability, emotional lability, depression and guilt can result in self-defeating or suicidal behaviors. Additionally the following may also be seen: emotional distancing and numbing, feelings of helplessness, hopelessness, sadness, sorrow, lowered self-esteem, distrust, hostility toward self and others, regret, sleep disorders, recurring distressing dreams, nightmares, anniversary reactions, psycho-physiological symptoms, alcohol and/or chemical dependencies and abuse, sexual dysfunction, insecurity, painful unwanted reexperiencing of the abortion, relationship disruption, communication impairment and/or restriction, isolation, fetal fantasies, self-condemnation, flashbacks, uncontrollable weeping, eating disorders, preoccupation, memory and/or concentration

---

<sup>83</sup> Peterson, K. *et al.* (1991). *Post-traumatic Stress Disorder: A Clinician's Guide*. New York: Plenum, p. 90.

<sup>84</sup> Speckhard, A. & Rue, V. (1992). Postabortion syndrome: An emerging public health concern. *Journal of Social Issues*, 48, 95-119.

disruption, confused and/or distorted thinking, delusions, bitterness, an enduring sense of loss, survivor guilt with an inability to forgive oneself, psychological distress associated with physical complications, and the corresponding increased need for psychotherapeutic and/or psychopharmacological treatment.

Traumatic events then have the capability of shattering the individual's core assumptions about reality. In PAS it is common to clinically encounter significant alteration of an individual's primary beliefs of safety, trust, worthiness, meaning in life, pleasure, self-image and degree of relatedness/connectedness to others. It is now generally accepted that posttraumatic stress reactions are more persistent after an events caused by human design. Because of this, survivor guilt, shame and a chronic inability to forgive oneself and the need to punish are commonplace and can impede recovery. There is also evidence that an individual experiencing an abortion is more likely to be traumatized if she believes that the procedure is *absolutely safe* psychologically. Unprepared, she feels unprotected and the victim of deception and/or manipulation at the abortion clinic. Events such as the above though must be given meaning by the individual in order to be experienced as stressful or not.<sup>85</sup>

### **Criteria B: INTRUSION/REEXPERIENCE**

Similar to many other psychiatric problems, PAS is not only profoundly distressing but also bewildering – to patients, their family members and, at times, even mental health professionals. Such trauma-related problems as flashbacks, nightmares, dissociative states, deliberate self-harm, and reenactments of past traumatic patterns in current relationships

---

<sup>85</sup> See generally: Peterson, Prout & Schwarz (1991) *op. cit.*, page 117.



are terrifying and disruptive. Persons in close relationships with traumatized patients are exposed to emotional contagion and vicarious trauma. It is well accepted that secure and stable relationships are the foundation for healing, yet these abortion-related problems undermine attachments, often creating a vicious circle of spiraling distress wherein the traumatized person feels increasingly alienated from sources of support – and further traumatized. That abortion is an unspeakable loss only compounds this distancing. Understanding of these dynamics and of the nature of PAS can provide a platform for treatment and hope.

### *Trauma Pile-Up*

A number of individuals struggling with PAS suffer from “trauma pile-up,” an accumulation of traumatic stress over the lifetime. Despite a history of childhood trauma, many persons function very well for long periods. Yet an abortion experience in young adulthood – on top of the vulnerability resulting from childhood trauma – can become the last straw. For example, adulthood abortion trauma can trigger symptoms of complicated grief and depression, often coupled with substance abuse, and then memories of earlier trauma may come to the forefront in the form of posttraumatic stress disorder. Trauma pile-up entails: (1) learning to regulate emotional distress more effectively; (2) minimizing exposure to further stress to the extent humanly possible; and (3) developing closer emotional bonds through healthy and secure relationships with significant others. The latter, in particular, is critical for two reasons: first, an attachment relationship can restore feelings of safety and lessen stigmatization and guilt, and second, relationships are often the nexus of trauma and transforming them into a positive and affirming relationship is vital for growth and recovery.

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 delineated the concept of "trauma pile-up," in which an individual is exposed to multiple and/or chronic traumata and the resultant overload precipitate a PTSD response (Figley, 1985; Peterson *et al.*, 1991). Likewise, mediating traumatic and non-traumatic 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 desired.

Moreover, research and clinical experience suggest there is a strong association between abortion traumatization and childhood abuse. In one study, 42.3% of the pregnant respondents electing abortion experienced physically or sexually abused before age 18 (Rue, Coleman, Rue & Reardon, 2004). Women who were powerless to prevent their childhood abuse may resort 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, their abortion decision represented identification with the aggressor and a perceived failure to protect the unborn child, who for them represented their own symbolic "child within." Thus the abortion experience can be both dis-empowering and retraumatizing for these victims of abuse. There is no research evidence that demonstrates elective abortion ameliorates prior traumatic stress or mental disorders. In fact, the evidence goes in the opposite direction.

*Reexperiencing*

In the case of PAS, reexperience can occur in women who frequently have nightmares following their abortion. One woman reported a recurring nightmare in which she dreams that her aborted baby is drowning in a swimming pool and she desperately and unsuccessfully keeps reaching out to save the child. Another woman described her nightly horror of waking in a panic every night hearing the desperate crying of a newborn in a nightmare and then searching the house in vain to find the infant.

Reexperience also occurs in PAS women in the form of preoccupation in their waking and sleeping moments with thoughts about pregnancy in general, and the aborted child in particular. Such preoccupation frequently becomes most intense on subsequent anniversary dates of the abortion or on anniversaries of the projected due date of the aborted child.

One woman described her monthly reexperiencing around her menses. During her menstruation, this married woman would ritually go into her bathroom and take a glass bottle to capture any blood clots in the hope of capturing any remnants of her two year old abortion.

PAS reexperience also occurs in the form of flashbacks to the abortion experience. As one woman described her flashbacks, "I keep hearing the sickening suction machine. It just goes off in my head and I can't stop it." Others avoid pregnant women, medical clinics, or babies for fear of revisiting and feeling overwhelmed by their traumatic loss.

In women with PAS, intrusive thoughts generally focus on some degree of attachment to the fetal child. In a 2004 American study, Rue *et al.* reported that 65% of women who had abortions experienced one or more of the following traumatic symptoms of intrusion/reexperience which they attributed directly to their abortion: nightmares (30%), unwanted memories of the

abortion (47%), flashbacks (46%), had a preoccupation with abortion (30%), with most women (65%) having one or more symptoms of reexperience symptoms. 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). Many women have a sense of the gender of their aborted unborn child, name this child and his or her existence becomes woven into the history and childbearing legacy of the parents. It has been stated previously, "parents are parents forever, even of a dead unborn child."

#### *Timing of reexperience*

Women with delayed onset of symptoms often do 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 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.*

The intrusion-denial cycle described by Horowitz (1976) is a central component of PTSD, and thus of PAS as defined here. Van der Kolk (1987) explained the response to psychological

trauma as biphasic 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."

### *Flashbacks*

Flashbacks to an abortion can occur as dissociative states in which sounds, sensations, sights, and emotions reoccur as if the abortion trauma were presently being experienced. Women with PAS frequently 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 Caesarian birth (Speckhard, 1987).

### *Survivor guilt*

Ambivalence and value conflict are common pre-abortion. In the act and aftermath of abortion, guilt and shame are

highly prevalent. Rue *et al.* (2004) reported that 30% felt overwhelmed after their abortion and 62% felt they were unable to forgive themselves. In this same study 59% felt that a part of them had died and 78% of women experienced guilt. Many individuals 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."

Although reactions to pregnancy loss have not been extensively studied, case examples abound that identify traumatic reactions in the form of survivor guilt, particularly following an abortion. This in turn may manifest itself in additional dysfunctional coping strategies and/or behaviors. For many women who have obtained an abortion, the question of personal survival may be agonizing. Individual freedom was purchased at whose expense? Relentless questions haunt the survivor: "How did I ever decide to do this?" "Why didn't I say something to the doctor because I didn't want to go through with it?" "How could I have done what I did knowing full well what I believe?" "How could I just have let my baby be scraped and vacuumed away?" The sinking feelings of helplessness and horror are often encountered as central features of trauma in general, and abortion in particular. Submissiveness to an abortion may elicit strong feelings of survivor guilt in women, especially when they perceive numerous acts of omission on their part that could have spared the life of their fetal child.

For surviving children, the picture may be even more complicated. Ney (1993) has reported on the significant intrapsychic turmoil surviving siblings of abortion encounter and the lasting impact on their personalities and relationships with others. Furlong and Black (1984) in studying women electing abortion for fetal malformations found negative

behavioral changes in 19 of the 22 surviving children after the abortions. While some of these children may have been responding to parental anxiety and grief, it is likely that not an insignificant number identified with their fetal sibling and as a result were anxious about their own well-being and safety. Ney has posited that surviving children have less confidence they will be cared for and may become more demanding, which may in turn produce more parent-child hostility and a greater likelihood of creating the very tenuous relationship they feared in the first place. Survivor guilt may also be manifest in women after an abortion and be a major precipitant in becoming pregnant again and having a "replacement or atonement child," which is generally inadvisable since it suggests the grief work surrounding the prior pregnancy experience was unresolved.

### *Reenactment of the abortion trauma*

For some women who have PAS, reenactment of the trauma becomes an organizing feature. Freud (1920) 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. According to this schema, 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). For some, the resurfacing of the trauma in a subsequent pregnancy is too threatening and compels another abortion. When multiple abortions occur, the traumatization and resulting psychological impairment can be compounded for some women.

*Personality Reorganization*

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.

In addition to the biphasic alternation of denial and intrusion, two categories of long-term effects of traumatization have been identified: secondary elaboration and post-traumatic decline.<sup>86</sup> 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. Post-traumatic decline is a restriction of activity and role functioning secondary to affect constriction and phobic avoidance. In women with PAS this decline may be prominent 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 post-abortion secondary elaboration and relevant interventions could mitigate the degree and course of post-traumatic decline. However, optimum prevention of PAS would require a thorough assessment of the predisposing risk factors for traumatization in pre-abortion counseling.

Women who are emotionally traumatized by their abortions, and perhaps physically traumatized as well, are

---

<sup>86</sup> Krugman, S. (1987). Trauma in the family. In van der Kolk, B. (ed.). *Psychological Trauma*, (pp. 127-152). Washington, D.C.: American Psychiatric Press.



frequently overwhelmed by the depths of the emotions that the abortion experience evokes. The factors of being surprised and overwhelmed by the intensity of the emotional and physical response to the abortion experience frequently act upon the post-abortive woman in a manner which causes her to resort to the defenses of repression and denial. The woman who represses or denies her emotional responses to the abortion trauma often reexperiences that trauma in memory at a later time. It is generally true that the PTSD symptom picture, particularly for a person who experienced a traumatic abortion, worsens as the magnitude of the trauma rises, as the chronicity of the disorder increases, and as the delay in treatment lengthens.<sup>87</sup>

### *Physiologic Reactivity and Somatic Complaints*

Posttraumatic re-experiencing of pregnancy loss and abortion in particular may manifest in anniversary reactions and/or flashbacks. Cavenar, Maltbie and Sullivan reported that some patients developed abdominal pain on the anniversary of the abortion.<sup>88</sup> Physiologic reactivity upon exposure to events that resembled an aspect of a traumatic abortion event was described by 21% of women Barnard studied.<sup>89</sup> For others, the traumatic pregnancy loss may manifest itself in unwanted memories triggered by menstruation:

*My period is coming. I will not be able to endure it. It is symbolic not only of the loss of my pregnancy, of my baby, but it is also a reminder that I have sacrificed my fertility as well. I cannot imagine surviving beyond this menstrual period and the vast emptiness it represents. For four or five days, unlike a thought*

---

<sup>87</sup> Frederick, C. (1980). Effects of natural versus human-induced violence upon victims. *Evaluation and Change* (special Issue), 71-75.

<sup>88</sup> Cavenar, J., Maltbie, A. & Sullivan, J. (1978). Aftermath of abortion. *Bulletin of the Menninger Clinic*, 42, 433-438.

<sup>89</sup> Barnard, (1990), *op. cit.*

*or feeling that lasts only moments, my period will be a constant physical reminder. My body will become an enemy, attacking me, tormenting me, reminding me ceaselessly, 'See your baby is gone, your pregnancy is over, you ended it, you killed your baby, your body is sterile.'*<sup>90</sup>

### **Criteria C: AVOIDANCE/DENIAL**

When intrusion and reexperience of the trauma become too threatening, the defenses of avoidance and denial help restore some sense of balance and mastery rather than feeling overwhelmed. Accordingly, affect is protected and limited coping mechanisms are restored. Rue, Coleman, Rue & Reardon (2004) reported 12% of women who had an abortion felt emotionally numb, 30% withdrew from family and friends, 50% avoided thinking or talking about the abortion, 25% experienced difficulty being near babies, with 24% experiencing a loss of interest in usual activities and 46% having difficulty remembering the abortion. In addition, 36% of women in this study experienced three or more avoidance symptoms which they attributed to their abortion.

When a woman's symptoms of posttraumatic stress following abortion are 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."

Some women may attempt mastery over their abortion experience by trying to avoid all activities, feelings, relationships, or memories related to the loss. Barnard

---

<sup>90</sup> Nathanson, S. (1989), *op. cit.*, pp. 151-152.

discovered that more than one out of ten (11%) of women who had aborted three to five years earlier were unable to recall an important aspect of the abortion, while 23% reported efforts to avoid feelings associated with the abortion. Similar findings were described by Kent *et al.* In this Canadian study of 72 women who obtained abortions, emotional numbing and loss of affect were reported.

Avoidant behaviors are generally unacknowledged by the traumatized individual, and serve both positive and negative functions. While preventing current emotional overload, avoidance reinforces lack of individual mastery and/or control over the traumatic material. Avoidance in women who have experienced a traumatic abortion can be manifest in intense levels of discomfort around pregnant women, infants and small children; an inability to discuss pregnancy or the abortion experience with others; increased loneliness and feelings of isolation and alienation following the abortion.

For some women, desiring to never conceive again after an abortion is an avoidant behavior. For some this precipitated requests for sterilization. Restricted or inhibited communication patterns among couples could also be described as post-pregnancy loss avoidant behaviors. Magyari *et al.* (1987) found that it was difficult for couples to return to the medical center where the termination of the pregnancy was performed for genetic reasons. They emphasized that this is a crucial step in the grief process and suggested that failure to do so places the couple at risk for prolonged or pathological grief reactions.

### *Denial*

The most prevalent of all intrapsychic defenses is that of denial. It is particularly evident when a loss or death is unexpected. Denial and general emotional numbing are found in virtually all forms of complicated mourning and posttraumatic issues.

As a defense mechanism, the major function of denial is affect protection (Freud, 1939). 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." Another woman described her abortion this way: "I had an operation to remove a tumor." 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 re-experiencing. Denial also protects against unwanted disclosure of the abortion event to those who might be judgmental or disapproving. Denial enables self and/or other deception.

Denial can span one's entire abortion experience, from the first awareness of pregnancy, responsibility for the pregnancy, of the reality and nature of abortion, the decision making process, the procedure itself or parts thereof, memory of the abortion, and awareness of any maladaptive coping behaviors or symptoms associated with an abortion. As a general rule, the more defended an individual, the greater the use of denial. If denial is used in one area of functioning, the likelihood it is in use in other aspects of a person's functioning increases dramatically. To the extent that denial is intractable, the probability of recovery is decreased.

Confronting traumatic memories may pose a seemingly unresolvable discrepancy with the individual's existing schemas about the self and the world, e.g., that the world

is (I am) safe, that (my) life is meaningful, that others are (I am) trustworthy. 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." Although clinical experiences indicate that denial/numbing is a universal response to trauma, 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.

Women with PAS may employ repression in an attempt to "forget" parts or the whole of the abortion trauma, creating "psychogenic amnesia" which is a central feature of PTSD. This memory loss may be temporary or chronic. The tendency to avoid dealing with a traumatic abortion experience must be overcome for three reasons: (1) patients cannot process the traumatic experience if they avoid everything about it and hence are held "hostage;" (2) the avoidance/denial itself becomes a secondary problem that further exacerbates the situation; and (3) the likelihood of future mastery of potentially highly stressful events is diminished considerably with unresolved past trauma.

### *Psychic Numbing*

When an event is experienced as traumatic, the individual feels overwhelmed by the rush of intrusive feelings and perceived loss of control. Just as feeling overwhelmed is involuntary, so too is the protective mechanism of psychic or emotional numbing. This is essentially a reversible form of symbolic death as a defense to avoid permanent psychic or emotional death. In order to dissociate itself from the perceived horrific death of the fetal child, the mind becomes deadened, and feeling is severed from knowledge and awareness. Common at the time of trauma and afterwards,

psychic numbing loses its adaptive quality when it persists chronically, with the person closing out all feeling.<sup>91</sup>

Many women who have elected abortion report feeling emotionally numb or on “automatic pilot” at the abortion clinic or during the procedure itself. Later on, the numbing of emotions seems to correlate with unwanted memory “leaks” or intrusions of the abortion beginning to surface and threaten the psychic status quo. When painful remembering is both too frequent and too overwhelming, the homeostatic mechanism of psychic numbing is activated. Over time, other feelings or desires are “iced” as well in a contagion effect of frozen protectiveness evident in loss of empathy, sexual interest, nurturance of children, etc. The ultimate tragedy for the abortion survivor is that she may become estranged from the very connections she most needs to recover:

*One fends off not only new threats of annihilation but gestures of love or help. Part of this resistance to human relationships has to do with a sense of being tainted by death, of carrying what might be called the psychic stigma of the annihilated ... one tends to internalize that sense of being worthless.<sup>92</sup>*

Alienated from the warmth of others, women who have elected abortions can become severely destabilized, unable to proceed forward in life and frozen in the death of their fetal child.

## **Criteria D: ASSOCIATED SYMPTOMS OF AROUSAL**

Women or men with PAS may feel constantly alert after the traumatic abortion. This is identified as increased emotional

---

<sup>91</sup> Rando, T. (1993). *Treatment of Complicated Mourning*. Champaign, Ill: Research Press.

<sup>92</sup> Lifton, R. (1979). *The Broken Connection*. New York: Simon & Schuster, p. 176.

arousal, and it can manifest with difficulty sleeping, outbursts of anger or irritability, difficulty concentrating, and startle reactions. According to the criteria for PTSD, It is important to note that none of these associated symptoms were present prior to the abortion. These individuals may find that they are constantly 'on guard' and on the lookout for signs of danger and/or threat. They may also find that they get easily startled. Misuse of alcohol and drugs frequently follow these symptoms as efforts to calm the stress or anxiety. In one U.S. study of PTSD associated abortion, 18% of American women studied had difficulty concentrating, 24% had difficulty in controlling anger, and 23% had difficulty sleeping, and were 8% were hyperalert which they attributed to their abortion experience (Rue, Coleman, Rue & Reardon, 2004). In this same study, 17% of the participants experienced 2 or more arousal symptoms. None of these symptoms were present before the abortion.

### *Sleep Disturbance*

Difficulty falling asleep as well as staying asleep have been associated with grief, depression, and trauma. Ashton assessed women eight weeks after an induced abortion and found that 36% cited sleep disturbance. Similar findings were reported by Freeman *et al.* (1980). Approximately 20-40% of American women experience sleep problems which they attribute to their abortion (Speckhard, 1987; Barnard, 1990; Rue, Coleman, Rue & Reardon, 2004), whereas approximately 14-50% of Russian women experience sleep problems after abortion (Speckhard & Mufel, 2003; Rue, Coleman, Rue & Reardon, 2004). Rue *et al.* (2004) also noted fetal nightmares were present for 8% of Russian women and 30% of American women studied. In the largest study done to date on sleep and abortion, Reardon and Coleman (2005) reported that, up to four years following abortion or delivery, women who underwent abortions were more likely to be treated for sleep disorders following an induced abortion compared

to a birth. The difference was greatest during the first 180 days after the end of the pregnancy, when aborting women were approximately twice as likely to seek treatment for sleep disorders. Significant differences between aborting and childbearing women persisted for three years.

It is not uncommon for women and men to experience sleep difficulties following a traumatic incident. Night seems to harken increased anxiety and painful intrusive memories. Fear of terrifying nightmares that focus on the unborn child's death or feeling helpless in preventing the death of a child provide further justification for avoiding sleep. Symptoms of heightened arousal are antithetical to rest and rejuvenation that sleep brings at day's end. For some, sleep disturbance may be seen as yet another punishment from God for killing their unborn child.

Because sleep disturbance is common following an abortion, many women turn to excessive alcohol use in order to find some peace and to feel the relief of some sleep. However, alcohol excess exacerbates sleep disorders; while it increases the likelihood that an individual will fall asleep due to its sedating effects, it disrupts the two sleep cycles of SWS (slow wave sleep) and REM (rapid eye movement) sleep. Sleep then becomes fitful, disturbing dreams are likely to awaken, and returning to sleep is difficult. When alcohol is used frequently and excessively, it results in a worsened sleep state characterized by fatigue and lethargy. This pattern of alcohol use to induce sleep disrupts an already fragile sleep-state and produces considerable sleep-related anxiety, and lowered mood from exhaustion. With sleep loss comes confusion, lack of concentration, feeling overwhelmed by emotions, impairment of judgment, more fatigue, and more feelings of hopelessness and depression.

#### *Hypervigilance:*

After a traumatic experience, survivors often feel overwhelmed. Often the nature of the trauma resulted in



feelings of panic over the inability to control the event or feeling “out of control” or helpless. Hypervigilance is a symptomatic attempt to regain mastery and control. Post-pregnancy loss, some parents in their effort to restore self-esteem and/or compensate for guilt feelings, develop patterns of overprotection and hypervigilance with their children. One parent described the amount of energy invested in hypervigilance this way:

*When he would sleep, I monitored his breathing. I couldn't take anything for granted because I already lost two children. And this little kid was here, and I was going to keep him. I had to be sure he was safe. I changed jobs, working nights, so I could stay home days to take care of my son. Sometimes I'd get less than a half hour of sleep, but that was ok, because he was my son. I had to be with him. I was becoming more and more obsessed with his welfare each day. I just couldn't trust anyone else with his life.<sup>93</sup>*

Estimates vary, but approximately 17-39% report hypervigilant symptoms following elected abortion (Barnard, 1990; Speckhard & Mufel, 2003; Rue, Coleman, Rue & Reardon, 2004). Peppers (1989) found a similar pattern with parents who had experienced previous perinatal loss revealing that parental concern for the child's welfare often created problems of adjustment for both the child and the parent. According to one mother:

*Did I overprotect? Let me tell you, Janet didn't leave the backyard until she was three years old. Her feet never touched the ground until she was a year old! Yes, I definitely overprotected her. In fact, I'm still overprotective and Janet is now 15. I think the hardest thing is the anticipation that it could happen again, and you know you just couldn't go through it again, so you have a tendency to be a little overcareful ... a little overprotective.<sup>94</sup>*

---

<sup>93</sup> Bell, G. (1990, June 9). Abortion Loss. Presented at the annual conference of Post-Abortion Reconciliation and Healing, Marquette University, Milwaukee, WI.

<sup>94</sup> Peppers & Knapp (1980), *op. cit.*, p. 134.

*Anger*

Anger has been identified as a stage of grief by numerous writers. After a pregnancy loss, and particularly after an induced abortion, anger may be directed inward resulting in depression, or may be displaced onto those who are close at hand, e.g., friends, partner, God, doctor, nurses, children, or it may be projected onto others denying one's own inner rage and frustrations. Several studies have assessed post-abortion anger: Speckhard (1987) reported that 92% of her sample had feelings of anger, rage or hostility following an abortion; Speckhard & Mufel, 2003 reported 48%, and Rue *et al.*, (2004) reported 24%.

When examining the repercussions of abortion loss, it is not uncommon for some women to express feelings of being betrayed by their partner, anger at the substitution of a traumatic event for an event that should have been joyous, and feelings of vulnerability and loss of control. For a significant number of women, their abortion decision felt coerced or pressured by the very individuals they trusted the most, i.e., their partners. Anger can become a symbolic umbrella for all the pain, suffering, isolation and relationship injury they have felt after the abortion. Blame, criticalness, depression, perfectionistic traits, overprotective, even suicidal ideation and/or gestures may all be secondary to unacknowledged or unresolved anger following an abortion.

In the case of elective abortion, increasing evidence of anger toward abortion providers has been noted. Typically, these complaints have focused on inadequate information regarding fetal development, biased counseling and the lack of counseling/information on alternatives to abortion, and insensitivity surrounding staff before, during and after the procedure. Nearly one out of two women Vaughan (1991) surveyed reported negative interactions with abortion clinic staff. Interestingly, women being counseled at abortion clinics may feel ambivalent and/or angry but they are perceived as

troublesome by abortion clinic staff because it makes them feel like failures, instead dealing with their frustrations by “detaching” from them in the few minutes made available for counseling (Wolkomir & Powers, 2007). Deficient pre-abortion counseling at the abortion clinic has also reported (Coyle *et al.*, 2009; Rue, Coleman, Rue & Reardon, 2004; Rue & Speckhard, 1991; Steinberg, 1989).

### *Suicidal Ideation*

Anger, when internalized, often precipitates depression and self-destructive behavior patterns, including suicidal ideation and gestures. Reardon found 62% of his sample described themselves as becoming suicidal as a direct or indirect result of their abortions with 20% reporting that they made one or more suicide attempts. These high rates reflect the very negative attributions of these women to both their decision to abort and the abortion itself. More than one out of three American women acknowledged they had suicidal thoughts as a result of their abortion experience. (Rue, *et al.*, 2004). Thorp, Hartman and Shadigian (2003) systematically reviewed the research literature and found that induced abortion increased the risk of mood disorders substantial enough to provoke attempts of self-harm.

One woman, an advocate of abortion rights, wrote of her personal experience:

*I can find no resting place. I have no inner center of peace and calm to which I can retreat from the pressure and stress of the external world. There is only the anguish, the torment, the shredded remains of my annihilated child, my Self the murderer ... Now Death becomes my beloved friend, my only source of comfort, the only focus that can organize the scattered fragments of my torment. I evolve a suicide plan... I keep it to myself, in reserve, a resource that offers the only comfort that I can find.*

Individuals electing abortion have complicated grief reactions because they often feel more directly responsible for

their circumstances since the decision precipitating the loss and grief was their own, at least to some degree. Limited research concerning suicidal thinking after other pregnancy loss events generally confirms this.

Approximately one year after struggling with the loss of her child from abortion, a 21 year old college student took her own life and left this in her suicide note: "I am truly sorry. I love you all. Now I can be with my unborn child."

### *Secondary Substance Abuse*

As mentioned previously, alcohol and substance abuse are commonly used as self-medicating strategies following a traumatic event. It is equally as common for this addictive pattern to be misdiagnosed as the primary disorder, when in fact it appears in response to the trauma, i.e., secondary. Individuals relying upon illegal or prescription drugs attempt to self-medicate to avoid disturbing symptoms, e.g., intrusive thoughts, nightmares, flashbacks, etc. Although the use of psychoactive drugs can reduce state anxiety, it only serves to complicate and inhibit the necessary grief and trauma work following an abortion.

When compared to adults, adolescents are more likely to retreat into sexual activity or alcohol and drug use.<sup>95</sup> Wilsnack *et al.* discovered from their analysis that the group of women who reported having had an induced abortion had twice the rate of heavy drinkers compared with U.S. women in general.<sup>96</sup> According to one study, approximately one out of four women noted an increase usage of alcohol or

---

<sup>95</sup> Campbell, N., Franco, K. & Jurs, S. (1988). Abortion in adolescence. *Adolescence*, 23, 813-823.

<sup>96</sup> Wilsnack, R., Wilsnack, S. & Klassen, A. (1984). Women's drinking and drinking patterns from a 1981 National Survey. *American Journal of Public Health*, 74, 1231-1238.

drugs following their abortion.<sup>97</sup> When alcohol dependency or substance abuse is identified as the primary presenting problem, without thorough examination of the individual's reproductive loss history, it is likely that the precipitating factor will remain unknown, undiagnosed and untreated.

## 7. SPECIAL CONSIDERATIONS

### Recurrent Abortions

Today in the U.S., the U.K., Russia, China, India, and many other countries, women are returning for a second or third or fourth abortion, a clinical reality of great concern given the limited research available on the psychological aftermath of recurrent or multiple abortions. In the U.S., repeat abortions now constitute approximately one out of two abortions performed annually (46%). Studies examining the emotional well-being of women who repeatedly elect this procedure suggest increased risks for lowered self-esteem, as reported by Russo & Zierck (1992), as well as more disrupted interpersonal relations,<sup>98</sup> and sleep disturbance.<sup>99</sup> Recent reports by the American Psychological Association (2008) and the Royal College of Psychiatrists (2011) are silent on the mental health safety of more than one abortion.

When multiple abortions occur, the traumatization and resulting psychological impairment can be overwhelming.<sup>100</sup>

---

<sup>97</sup> Rue, V., Coleman, P., Rue, J. & Reardon, D. (2004), *op. cit.*

<sup>98</sup> Freeman, E., Rickels, K. & Huggins, G. (1980). Emotional distress patterns among women having first or repeat abortions. *Obstetrics & Gynecology*, 55, 5, 625-635.

<sup>99</sup> Berger, C., Gold, D., Andres, D., Gillett, P. & Kinch, R. (1984). Repeat abortion: is it a problem? *Family Planning Perspectives*, 16, 2, 70-75.

<sup>100</sup> Somers, R. (1979). Risk of Admission to Psychiatric Institutions

For those negatively impacted by an earlier trauma, time can stand still. Some may experience abortion as a “replay of their original trauma,” particularly if it was sexual in nature and happened as a child (Paul *et al.*, 2009: 205). This is not insignificant since various estimates suggest 18-44% of U.S. women have suffered some form of sexual violation in their lifetime.<sup>101</sup>

Recurrent abortions are common among other patient behaviors that are likely to trigger critical judgments both by those who provide abortions and by society generally.<sup>102</sup> Landy described the woman seeking a repeat abortion as a “problematic” and “unsuccessful” patient for the abortion clinic counselor. Accordingly, “if the woman herself has a sense of failure,” then a referral for psychotherapy would be recommended in this counseling protocol.<sup>103</sup> With the high incidence of repeat abortions today, it is unlikely that such referrals are ever made. It is nearly normative now for the typical abortion patient to have already experienced this procedure. After interviewing more than 1000 women with crisis pregnancies, Fisher (2000) cautioned that repeat abortions are both an individual and social problem with

---

Among Danish Women Who Experienced Induced Abortion: An Analysis Based Upon Record Linkage.” Unpublished doctoral dissertation. Los Angeles: University of Southern California.

<sup>101</sup> Russell, D. & Bolen, R. (2000). *The Epidemic of Rape and Child Sexual Abuse in the United States*. Thousand Oaks, CA: Sage Publications.

<sup>102</sup> Other patient behaviors include: pregnancies resulting from nonuse or misuse of contraceptives, abusive relationships, preadolescent or adolescent sex and pregnancy, adolescents not wanting to tell their parents, reasons for the abortion other than what the abortion provider believes is justifiable, second-trimester abortion, and the unmanageable patient in the treatment room. Table 5.3, p. 54. Paul, M., Lichentenberg, E., Borgatta, L., Grimes, D., Stubblefield, P. & Creinin, M. (eds.) (2009). *Management of Unintended and Abnormal Pregnancy: Comprehensive Abortion Care*. Chichester, West Sussex, UK: Blackwell.

<sup>103</sup> Landy, U. (1986). Abortion counseling: A new component of medical care. *Clinics in Obstetrics and Gynaecology*, 13, 1, 33-42, p. 40.

physical and emotional suffering as well as a growing strain on medical and counseling resources.<sup>104</sup>

## **Abortion & Abuse**

In the U.S., sexual abuse among women is of an epidemic proportion, with prevalence estimates of lifetime sexual abuse varying between 15 and 25% among the general female population.<sup>105</sup> The aftermath of physical, emotional and/or sexual abuse may not be immediate, for when the abuse ends, the emotional trauma is likely to remain. The effects of such abuse can be seen in one's primary and social relationships, as abused individuals are likely to express discomfort and fears relating to love and sexual intimacy with others. Other consequences of abuse or trauma may remain more covert and hidden for years, but be equally unhealthy and destructive. This may include the development of disgust and hate for the body, as well as an overwhelming sense that events in one's life are uncontrollable. Essentially, past occurrences of abuse or trauma are likely to affect how one experiences living in their body, and ultimately existing and interacting in the world. With an unwanted pregnancy, these women are particularly prone to seeking out immediate resolution, to feel pressure to conform or to please others, to be more persuadable by those in the medical profession, and to be offered an abortion as the solution to all of their problems.

Increasingly there appears to be a connection between abortion traumatization and childhood abuse.<sup>106</sup> Russo &

---

<sup>104</sup> Fisher, S. (1986). Reflections on repeated abortions: The meanings and motivations. *Journal of Social Work Practice*, 2 (2), 70-87.

<sup>105</sup> Lesserman, J. (2005). Sexual abuse history: Prevalence, health effects, mediators, and psychological treatment. *Psychosomatic Medicine*, 67: 906-915.

<sup>106</sup> Hanley, *et al.* (1992). Women Outpatients Reporting Continuing Post-Abortion Distress: A Preliminary Inquiry. Paper presented at the annual

Denious (2001) reported that women reporting an abortion were more than twice as likely to have experienced childhood physical abuse, and more than three times as likely to have experienced childhood sexual abuse than women who reported having no abortions. Women who were powerless to prevent their childhood abuse resorted by necessity to repression and denial as their primary coping mechanisms.<sup>107</sup> 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 has been 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.<sup>108</sup>

Abuse in relationships complicates both the abortion decision and its aftermath. Ultimately, when the abortion decision is so conflicted, so personally violative of a woman's fundamental moral beliefs in fairness, human life, and her maternal nature, if she proceeds the decision is likely to cause posttraumatic reactions. She may feel there is simply no other "choice" or even feel coerced, as many women feel today in abusive relationships. In this case, Battered Women's Syndrome as developed by Walker is an additional complicating factor affecting the decision to abort.<sup>109</sup> For the

---

meeting of the International Society for Post-Traumatic Stress Studies, Los Angeles, CA.

<sup>107</sup> Whitefield, C. (1987). *Healing the Child Within*. Pompano Beach, FL: Health Communications.

<sup>108</sup> Speckhard, A. & Rue, V. (1992). Postabortion syndrome: An emerging public health concern. *Journal of Social Issues*. 48, 95-119.

<sup>109</sup> The issue of battered women's syndrome, also a variant of posttraumatic stress disorder, should be explored in any malpractice



battered women, inadequate pre-abortion counseling and the abortion experience itself are likely to remedy little in their tragic lives, and are more likely to further exacerbate an already fragile and dysfunctional situation. Traumatologist Judith Herman cautioned:

*But the final step in the psychological control of the victim is not completed until she has been forced to violate her own moral principles and to betray her basic human attachments. Psychologically, this is the most destructive of all coercive techniques, for the victim who has succumbed loathes herself. It is at this point, when the victim under duress participates in the sacrifice of others, that she is totally 'broken.'*<sup>110</sup>

## Spirituality & Abortion Trauma

It has often been stated that abortion involves multiple deaths, i.e., the death of the unborn child, the psychological death of the mother or perhaps her thinking of taking her own life, the death of dreams and the future, the death of a primary relationship, and the death of her relationship with God. If meaning and direction in life have any bearing, decisions are informed and made on the basis of one's moral values and beliefs in the supernatural and spirituality. Spirituality and religion play a significant role in helping people cope with stress or to protect them against stress. For

---

action. Current battered women's cases have involved coerced abortions, e.g., Lorena Bobbitt. "Learned helplessness" is a fundamental aspect of a battered woman's functioning that is repetitively reinforced in an abusive relationship. Consequently, without a thorough exploration of her relationship in pre-abortion counseling, this woman's abortion decision making is likely to be passive, highly conflicted and burdened by feelings of hopelessness and helplessness. For further reading, see: Ochberg, F. (ed.) (1988). *Post-traumatic Therapy and Victims of Violence*. New York: Brunner/Mazel. Walker, L. (1979). *The Battered Woman*. New York: Harper & Row. Herman, J. (1992). *Trauma & Recovery*. New York: Basic Books.

<sup>110</sup> Herman, J. (1992). *Trauma & Recovery*. New York: Basic Books, page 83.

many, if not most, when trauma strikes, it is religion, ritual and faith/spirituality that are embraced as a central means of coping.<sup>111</sup> Because traumatic events can indeed lead to disruptions in the processing of information and to changes in values and beliefs, individuals with PTSD are more likely to report changes in religious beliefs following a traumatic event, generally becoming less religious.<sup>112</sup>

According to Garbarino, the spiritual nature of trauma should not be dismissed: "Religious experience is about enlightenment, coming to know the 'light of the world.' Trauma is thus a religious experience, the experience of darkness rather than enlightenment, a plunging into the shadows of life (coming face to face with human vulnerability and evil)."<sup>113</sup> When abortion trauma robs an individual of a sense of safety and meaning in life, spirituality can be a way of discovering new direction and purpose, as well as providing a helpful context for posttraumatic growth and healing. For some, living with post-abortion trauma can in many ways be equivalent to suffering the "dark night of the soul" as propounded by St. John of the Cross in the 16<sup>th</sup> century.<sup>114</sup> Seen through this prism, God works passively on the soul through sorrow and darkness, doubts, loneliness and desolation, loss of pleasure, and feelings of disconnection/abandonment from God, despite God's omnipresence.

Several meta-analytic reviews have demonstrated that individuals who use religious and spiritual coping efforts

---

<sup>111</sup> Meichenbaum, D. (1994). *Treating adults with PTSD*. Waterloo, ON: Institute Press.

<sup>112</sup> Falsetti, S., Resick, P. & Davis, J. (2003). Changes in religious beliefs following trauma. *Journal of Traumatic Stress*, 16(4): 391-398.

<sup>113</sup> Gabarino, S. & Bedard, C. (1996). Spiritual challenges to children facing violent trauma. *Childhood*, 3, 467-478.

<sup>114</sup> St. John of the Cross (1578). *Dark Night of the Soul*. Translated and edited by Peers, E.A. from the critical edition of Silverio de Santa Teresa, P. Available online: [http://www.ccel.org/ccel/john\\_cross/dark\\_night.i.html](http://www.ccel.org/ccel/john_cross/dark_night.i.html).

demonstrate greater physical and emotional well-being.<sup>115</sup> Religious coping is significantly associated with a variety of adjustment indicators including lower levels of depression and alcohol consumption, fewer somatic complaints, fewer interpersonal problems, lower mortality, and greater levels of life satisfaction, more use of social supports and overall improved coping ability. For the above reasons, it is likely to be beneficial for a woman or a man who has experienced a traumatic abortion to re-examine the importance of spirituality in her/his life and consider renewing and building a closer relationship with God or the divine, despite feelings of estrangement or anger that God allowed an unwanted pregnancy to occur and didn't prevent the abortion.

## 8. PREVENTION & CONCLUSION

Aside from banning abortion or deciding to not abort, prevention of post-abortion trauma commences before the abortion ever occurs. A woman's consent for an abortion cannot be informed without the provision of adequate and appropriate information regarding the possible risks and benefits to her physical and mental health from this procedure, as well as informing her of the comparative risks and benefits of keeping or placing her child. Nor can her decision be truly informed if her decision is not her own, i.e., fully voluntary and without coercion or pressure.

---

<sup>115</sup> See: Ano, G. & Vasconcelles, E. (2005). Religious coping and psychological adjustment to stress: A meta-analysis. *Journal of Clinical Psychology*, 61: 1-20; Miller, C. & Kelly, B. (2005). Relationships of religiosity and spirituality with mental health and psychopathology. In Paloutzian, R. & Parks, C. (eds.). *Handbook of the Psychology of Religion and Spirituality*. New York: Guilford Press, pp. 460-478; Pargament, K. (2007). *Spiritually Integrated Psychotherapy*. New York: Guilford Press.

In 2008, the Royal College of Psychiatrists altered its previous position statements regarding the psychological safety of induced abortion and stated: "Healthcare professionals who assess or refer women who are requesting an abortion should assess for mental disorder and for risk factors that may be associated with its subsequent development. If a mental disorder or risk factors are identified, there should be a clearly identified care pathway whereby the mental health needs of the woman and her significant others may be met." This is also a theme repeated by a long-term follow-up study of women viewing their abortion experiences at menopause (Dykes, 2010). Without adequate screening for risk factors, all women seeking an abortion are presumed to be the same by abortion providers, with none carrying any increased risk for adverse psychological outcomes afterwards. Such a position is unreasonable given the research literature that has corroborated the existence of these risks factors. Furthermore, it is patently injurious to women to assume that known risk factors are irrelevant to their post-abortion mental health outcomes.

When women are not provided adequate or sufficient information in pre-abortion screening they are more likely to suffer adverse emotional consequences from their decision to terminate their pregnancy. Women need to be provided professional counseling that includes full exploration of their decision options, pressure/coercion, risks and benefits of each option including doing nothing, exploration of risk factors in general and focus on individual risk factors relevant to them, examination of past pregnancies and psychosocial history, and to be afforded sufficient time and respect to do so. When women with unintended pregnancies receive unprofessional and substandard counseling it is injurious to women's mental health. The deficiencies of current pre-abortion counseling are well known and require remediation.

Abortion counseling is known to be deficient in many respects (Steinberg, 1989; Rue & Speckhard, 1991, Upadhyay,

Cockrill & Freedman, (2010). In 2004, Rue, Coleman, Rue & Reardon found that 51.9% of American women who had an abortion needed more time to make a decision, that only 17.5% received counseling on alternatives at the abortion clinic, that 64% felt pressured by others to abort, that 54% were not sure of their decision at the time of the abortion, and that only 10.8% believed they received adequate counseling beforehand.

In 2011, Coyle, Coleman & Rue published their research on perceived adequacy of pre-abortion counseling. For women, perceptions of pre-abortion counseling inadequacy predicted relationship problems, symptoms of intrusion, avoidance, and hyperarousal, and meeting full diagnostic criteria for posttraumatic stress disorder (PTSD) with controls for demographic and personal/situational variables used. For men, perceptions of inadequate counseling predicted relationship problems and symptoms of intrusion and avoidance with the same controls used. Incongruence in the decision to abort predicted intrusion and meeting diagnostic criteria for PTSD among women with controls used, whereas for men, decision incongruence predicted intrusion, hyperarousal, meeting diagnostic criteria for PTSD, and relationship problems. These findings suggest that both perceptions of inadequate pre-abortion counseling and incongruence in the abortion decision with one's partner are related to adverse personal and interpersonal outcomes. These circumstances are likely to be experienced frequently among women and men facing a crisis pregnancy. Abortion may be viewed as a "simple" solution by some, but the complexity it brings to an already stressed circumstance can have significant mental health risks and risks to relationships.

Existing research and clinical evidence suggests *some* women are at greater risk for experiencing adverse psychological sequelae after abortion than others. These women need more, not less counseling. They need professional assistance in

considering their options and the totality of their circumstances warrants full exploration and sensitivity. The APA Task Force on the Mental Health of Abortion (2008) concluded that the evidence is compelling that the following women are indeed at risk of post-abortion emotional injury:

1. *women who have multiple abortions (about 47% of all abortions performed annually in the U.S.)*
2. *women who abort a wanted pregnancy because of coercion or pressure to abort from third parties (may range from 20-60% in the U.S.)*
3. *minors who have abortions (approximately 12% in the U.S.)*
4. *women with preexisting mental health problems (may range from 10-40% of abortion seeking women in the U.S.)*

The American Psychological Association is not alone in asserting that some women are more likely than others to be at risk for psychological problems following abortion. Even the National Abortion Federation, the primary professional association of abortion providers in North America, has also acknowledged the following predisposing risk factors increase mental health risks for women who elect abortion:

1. *Low self-efficacy: expecting depression, severe grief or guilt, and regret after the abortion*
2. *Low self-esteem prior to the abortion*
3. *An existing mental illness or disorder prior to the abortion*
4. *Significant ambivalence about the decision*
5. *Lack of emotional support and receiving criticism from significant people in their lives*
6. *Perceived coercion to have the abortion*
7. *Intense guilt and shame before the abortion*
8. *Belief that a fetus is the same as a 4-year old human and that abortion is murder*
9. *Fetal abnormality or other medical indications for the abortion*
10. *Usual coping style is repressing thoughts or denial*
11. *Unresolved past losses and perception of abortion as a loss*

12. *Experiencing social stigma and antiabortion demonstrators on the day of the abortion*

13. *Past childhood sexual abuse*<sup>116</sup>

What is remarkable about the above risk factors is the fact that they have long been known and generally accepted by both sides in the abortion debate. Nevertheless, they have not been incorporated into counseling protocols and in the absence of screening for these factors, continue to needlessly place women's mental health at risk when they elect abortion.

Given the concurrence of risk identified above, it is clear that there is a growing need for preventative measures, including health and mental health professionals being required to screen and counsel women concerning the psychological risk factors of abortion (Mota *et al.*, 2010). By improving pre-abortion screening and counseling, adverse mental health outcomes can be better prevented. By being alert to the increasing reality of multiple abortions, developmental challenges facing adolescents considering abortion, prior mental health issues, medical and mental health providers should reevaluate the counseling and pre-abortion screening they offer women considering abortion. Counseling should be sensitively and comprehensively approached, maximizing information sharing, respecting individual differences among patients, and identifying those women who are more at risk than others of having negative post-abortion psychological outcomes.

If scientific integrity and genuine compassion for women's health and safety are more than rhetoric, then it is no longer relevant to debate the existence of post-abortion trauma.

---

<sup>116</sup> Baker, A. & Beresford, T. Informed consent, patient education, and counseling. In Paul, M. *et al.* (eds.) (2009). *Management of Unintended and Abnormal Pregnancy: Comprehensive Abortion Care*. Chichester, West Sussex, U.K.: Wiley-Blackwell, Table 5.4, p. 57.

Rather the concerns should appropriately shift now to: (1) how many women and men are affected and to what degree; (2) what refinements are needed in the clinical definitions of post-abortion trauma to improve early identification and prevention; (3) what laws and policies need revision to minimize the psychological harm following abortion, including enhanced informed consent, requiring professional counseling beforehand and screening for risk factors, waiting periods, use of ultrasonography, etc.; and (4) what treatments are most effective in helping those women and men who have been traumatized by their abortion experience? Toward this end, the need for more and improved research is evident. In addition to more clinical studies, large-scale retrospective and prospective research efforts are needed to examine these many factors.

In the final analysis, it is not the pronouncements of national or global medical or mental health organizations devoted to abortion rights that are determinative. Rather, it is the voice of the women who have had abortions, their partners, their friends, and their families that will be the most compelling. Whether denied, dismissed, or labelled politically incorrect, the often invisible and inconvenient injury of post-abortion trauma remains. In the end, it is that cumulative psychological and physical toll on individual lives harmed that will render the decisive judgment about abortion's fate.

### ACKNOWLEDGEMENTS

The author wishes to gratefully acknowledge the generous assistance of Dr. Susan Stanford-Rue in helping to make this report possible. In addition, the author wishes to thank Mary Troutman for her continuous and helpful assistance in the research and preparation of this report.



TABLE 1

**Post-Abortion Syndrome:**

*Diagnostic Criteria\**

**A. EXPOSURE TO TRAUMA:** Both of the following are present:

- (1) the person has experienced, witnessed or was confronted with an abortion event which was perceived as traumatic and involving the actual and intentional death of the unborn child
- (2) the person's response involved intense fear, helplessness, or horror so as to cause significant symptoms of reexperience, avoidance, increased arousal and impacted grief

**B. REEXPERIENCE:** The abortion trauma is reexperienced in one or more of the following ways:

- (1) recurrent and intrusive distressing recollections of the abortion experience
- (2) recurrent distressing dreams of the abortion or of the unborn child (e.g., baby dreams or fetal fantasies)
- (3) acting or feeling as if the abortion event were recurring (includes reliving the experience, illusions, hallucinations, dissociative flashback episodes)
- (4) intense psychological distress at exposure to events that symbolize or resemble the abortion experience (e.g., medical clinics, pregnant mothers, babies, subsequent pregnancies), as well as experiencing anniversary reactions of intense grieving and/or depression on subsequent anniversary dates of the abortion or on the projected due date for delivery
- (5) physiological reactivity on exposure to internal or external cues that symbolize or resemble as aspect of the abortion

**C. AVOIDANCE:** Persistent avoidance of stimuli associated with the abortion trauma or numbing of general responsiveness (not present before the abortion), as indicated by at least three of the following:

- (1) efforts to avoid thoughts, feelings or conversations as well as efforts to deny thoughts or feelings associated with the

- abortion or negative personal meaning derived from the experience
- (2) efforts to avoid information, activities, places, or people that arouse recollections of the abortion trauma
  - (3) inability to recall an important aspect of the abortion trauma
  - (4) markedly diminished interest or participation in significant activities
  - (5) feeling of detachment or estrangement from others, including withdrawal in relationships and/or reduced communication
  - (6) restricted range of affect, e.g., unable to have loving or compassionate feelings
  - (7) sense of a foreshortened future, e.g., does not expect to have a career, marriage or future children, or a normal life span

*D. ASSOCIATED FEATURES:* Persistent symptoms of increased arousal (not present before the abortion trauma) as indicated by two or more of the following:

- (1) difficulty falling or staying asleep
- (2) irritability or outbursts of anger (e.g., at self, others, male partner, God, doctor)
- (3) difficulty concentrating
- (4) hypervigilance
- (5) exaggerated startle response to intrusive recollections of the abortion trauma
- (6) depression and/or suicidal thinking
- (7) persistent feelings of guilt about surviving when one's unborn child did not
- (8) significant symptoms of self-devaluation and/or an inability to forgive one's self
- (9) secondary substance abuse
- (10) symptoms of eating disorder
- (11) loss of sexual interest or acting out with multiple sexual partners

*E. DURATION:* Symptoms in B, C, & D last more than 1 month

*F. IMPAIRMENT:* Disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

**G. ONSET:**

- (1) Acute (if duration of symptoms is less than 3 months)
- (2) Chronic (if duration of symptoms is 3 months or more)
- (3) Delayed (if onset of symptoms is at least 6 months after the stressor)

\* Developed by and revised by Vincent M. Rue, Ph.D. from diagnostic criteria for Posttraumatic Stress Disorder (DSM-IV: 309.81), American Psychiatric Association, **Diagnostic and Statistical Manual of Mental Disorders**, Washington, D.C.: APA, 1994, pp. 427-429. Postabortion Syndrome was first identified by Rue in 1981. While the American Psychiatric Association has not yet affirmed the existence of a clinical syndrome under the diagnosis of "Postabortion Syndrome," it has identified abortion as a type of "psychosocial stressor" (DSM III-R, p. 20, 1987). The most current diagnostic manual, DSM-IV, does not reference or include the diagnosis of "Postabortion Syndrome," but does identify the "death of a family member" as a type of psychosocial problem.

TABLE 2  
**Post-Abortion Traumatic Grief\***  
Diagnostic Criteria

**Criterion A:**

1. Person has experienced the intentional death of her/his unborn child through abortion
2. The response involves intrusive, distressing preoccupation with the unborn child (e.g., yearning, longing, or searching)

**Criterion B:**

In response to the death of the unborn child, the following symptoms may be marked or persistent:

1. Frequent efforts to avoid reminders of the abortion experience (e.g., thoughts, feelings, activities, people, places)
2. Purposelessness or feelings of futility about the future
3. Subjective sense of numbness, detachment, or absence of emotional responsiveness
4. Feeling stunned, dazed, or shocked
5. Difficulty acknowledging the intentional death of one's unborn child (e.g., disbelief)
6. Feeling that life is empty or meaningless
7. Difficulty imagining a fulfilling life without their unborn child
8. Feeling that part of oneself has died
9. Shattered world view (e.g., lost sense of security, trust, or control)
10. Dysfunctional coping mechanisms or symptoms related to the abortion
11. Excessive irritability, bitterness, or anger related to the abortion
12. Feeling conflict, confusion and guilt about the abortion

**Criterion C:**

The duration of disturbance is at least two months.

**Criterion D:**

The disturbance causes clinically, significant impairment in social, occupational, or other important areas of functioning.

\*Adapted from Thevathasan, P. (2002). Post abortion traumatic grief. *Catholic Medical Quarterly*, November. & Jacobs, S. (1999). *Traumatic Grief*. Florence, KY: Psychology Press.

## REFERENCES

- Adler, N.E. (1989). University of California at San Francisco, *Statement on Behalf of the American Psychological Association before the Human Resources and Intergovernmental Relations Subcommittee*. U.S. House of Representatives: 130-140.
- Adler, N. David, H., Major, B., Roth, S., Russo, N. & Wyatt, G. (1990). Psychological responses after abortion. *Science*, 248, 41-44.
- Adler, N.E, David, H.P., Major, B.N., Roth, S.H., Russo, N.F. *et al* (1992). Psychological factors in abortion. *American Psychologist*, 47, 1194-1204.
- Adler, N.E. (1975). Emotional responses of women following therapeutic abortion: How great a problem? *Journal of Applied Social Psychology*, 6, 240-259.
- Adler, N. (1976). Sample attrition in studies of psychosocial sequelae of abortion. *American Journal of Orthopsychiatry*, 45, 446-454. Adler, N. (1990). Psychological responses after abortion. *Science*, 248, 41-44.
- Adler, N.E. (2000). Abortion and the null hypothesis. *Archives of General Psychiatry*, 57, 785-786.
- Allanson, S. & Astbury, J. (2001). Attachment style and broken attachments: Violence, pregnancy, and abortion. *Australian Journal of Psychology*, 53, 146-151.
- Amaro H., Zuckerman B, & Cabral H. (1989). Drug use among adolescent mothers: profile of risk. *Pediatrics*, 84, 144-151.
- American College of Obstetricians and Gynecologists (2001). Medical management of abortion. *American College of Obstetricians and Gynecologists, Practice Bulletin*, Washington, D.C.
- American Psychiatric Association. (1994). *Diagnostic & Statistical Manual of Mental Disorders, IV*, Washington, D.C.: American Psychiatric Press, 427-428.
- American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders-IV Text-Revised*. Washington, D.C.: American Psychiatric Association.
- American Psychiatric Association. (2005). Major Depressive Disorder and Suicidal Behaviors. American Psychiatric Association Practice Guideline.

- American Psychological Association. (2008) Report of Task Force on *The Impact of Abortion on Women's Mental Health*.
- Andropoulis, G.J. (2000) Declaration of human rights and international code of research ethics. In Gallagher, J, Gurowitz, S. Levine, R.J. (eds.) *Biomedical Research Ethics: Updating International Guidelines*. Geneva: World Health Organization.
- Angelo, E.J. (1992). Psychiatric sequelae of abortion: The many faces of post-abortion grief. *Linacre Quarterly*, May 1992, 69-80.
- Angelo, E.J. (1995). Grief after abortion. *Ethics and Medics*, 20, 11, 1-3.
- Armstrong, M.W. (1991). Psychological response to abortion. *Journal of Counseling and Development*, 69 (4), 377-379.
- Ashton, J. (1980). The psychosocial outcome of induced abortion. *British Journal of Obstetrics and Gynecology*, 87, 1115-1122.
- Astin, M.C., Lawrence, K.J. & Foy, D.W. (1993). Posttraumatic stress disorder among battered women: Risk and resiliency factors. *Violence and Victims*, 8, 17-28.
- Athanasίου, R., Oppel, W., Michelson, L., Unger, T., & Yager, M. (1973). Psychiatric sequelae to term birth and induced early and late abortion. *Family Planning Perspectives*, 5:9, 4, 227-231.
- Avalos, L. (1999). Hindsight and the abortion experience: What abortion means to women years later. *Gender Issues/Spring*, 35-57.
- Bagarozzi, D.A. (1993) Post traumatic stress disorders in women following abortion: Some considerations and implications for marital/couple therapy. *International Journal of Family and Marriage*, 1, 51-68.
- Bagarozzi D.A. (1994). The identification, assessment, and treatment of women suffering from Post-Traumatic Stress after abortion. *Journal of Family Psychotherapy*, 5, 3, 25-54.
- Baker, A., Beresford, T., Halvorson-Boyd, G. & Garrity, J. (1999). Informed consent, counseling, and patient preparation. In Paul, M. et al. (eds.). *A Clinician's Guide to Medical and Surgical Abortion*. New York: Churchill Livingstone.
- Baker, A., Morrison, J. & Coffey, S. (2011). Using prolonged exposure to treat abortion-related posttraumatic stress disorder in alcohol-dependent men: A case study. *Clinical Case Studies*, 10, 427-439.
- Ballenger, J.C., Davidson, J.R., Lecrubier, Y., Nutt, D.J., et al (2004).

- Consensus Statement update on Posttraumatic Stress Disorder from the International Consensus Group on Depression and Anxiety. *Journal of Clinical Psychiatry*, 65, Supp. 1, 55-62.
- Barnard, C. (1990). *The Long-Term Psychosocial Effects of Abortion*. Jacksonville, FL: Institute for Pregnancy Loss, Jacksonville, Florida.
- Barnett, W., Freudenberg, N., & Wille, R. (1992). Partnership after induced abortion: A prospective controlled study. *Archives of Sexual Behavior*, 21(5), 443-455.
- Beckman, L. and Harvey, S. (eds.) (2000). *The New Civil War: The Psychology, Culture, and Politics of Abortion*. Washington, D.C.: American Psychological Association.
- Belsey, E.M. , Greer, H.S. Lewsi, S.C. & Beard, R.W. (1977). Predictive factors in emotional responses to abortion: Kings Termination Study. *Social Science and Medicine*, 11, 71-82.
- Berger, J. (1994). The psychotherapeutic treatment of male homosexuality. *American Journal of Psychotherapy*, 48 (2), 251-261.
- Bianchi-Demicheli, F. (2007). Psychiatric and psychological consequence of abortion. *Review Medical Suisse*, 3, 98, 401-7.
- Bianchi-Demicheli, F. *et al.* (2002). Termination of pregnancy and women's sexuality. *Gynecological and Obstetric Investigation*, 53, 48-53.
- Bianchi-Demicheli, F., Kulier, R., Perrin, E., & Campana, A. (2000). Induced abortion and psychosexuality. *Journal of Psychosomatic Obstetrics and Gynecology*, 21 (4), 213-217.
- Birnbaum, M.H. (2004). Human research and data collection via the internet. *Annual Review of Psychology*, 55 (1), 803-832.
- Blais, M.A. (2000). Pregnancy outcome and impact on symptomatology in a cohort of eating disordered women. *International Journal of Eating Disorders*, 27, 140-9.
- Bleich, A., Koslowwski, M., & Dolev, A. (1997). Post-traumatic stress disorder and depression: Analysis of co-morbidity. *British Journal of Psychiatry*, 78, 479-482.
- Blumberg, B.D., Golbus, M.S. & Hanson, K.H. (1975). The psychological sequelae of abortion performed for a genetic indication. *American Journal of Obstetrics and Gynecology*, 122 (7), 799-808.

- Boelen, P.A., van den Bout, J. & de Keijser, J. (2003). Traumatic grief as a disorder distinct from bereavement-related depression and anxiety: A replication study with bereaved mental health care patients. *American Journal of Psychiatry*, 160, 1339-1441.
- Boesen, H.C., Rorbye C., Norgaard, M., Nilas, L. (2004). Sexual behavior during the first eight weeks after legal termination of pregnancy. *Acta Obstetrica et Gynecologica Scandinavica*, 83, 1189-1192.
- Bogen, I. (1974). Attitudes of women who have had abortions. *Journal of Sex Research*, 10, 97-109.
- Bonavoglia, A. (ed.) (1991). *The Choices We Made: Twenty-five Women and Men Speak Out About Abortion*. New York: Random House Press.
- Borins, E & Forsythe, P. (1985). Past trauma and present functioning of patients attending a women's psychiatric clinic. *American Journal of Psychiatry*, 142 (4), 460-463.
- Boulind, M. & Edward, D. (2008). The assessment and treatment of post-abortion syndrome: A systematic case study from southern Africa. *Journal of Psychology*, 18(4), 539-548.
- Bracken, M.B., Hachamovitch, M. & Grossman, G. (1974). The decision to abort and psychological sequelae. *Journal of Nervous and Mental Disease*, 158 (2), 154-162.
- Bracken, M.B. (1978). A causal model of psychosomatic reactions to vacuum aspiration. *Social Psychiatry*, 13, 135-145.
- Bracken, M.B. & Kasi, S. (1975). First and repeat abortions: A study of decision-making and delay. *Journal of Biosocial Science*, 7, 473-491.
- Bradley, C. (1984). Abortion and subsequent pregnancy. *The Canadian Journal of Psychiatry*. 29: 960, 494-8.
- Bradshaw, Z. and Slade, P. (2003). The effects of induced abortion on emotional experiences and relationships: A critical review of the literature. *Clinical Psychology Review*, 23, 7, 929-958.
- Bradshaw, Z., & Slade, P. (2005). The relationship between induced abortion, attitudes toward sexuality, and sexual problems. *Sexual and Relationship Therapy*, 20, 390-406.
- Braun, B.G. (1993). Multiple Personality Disorder and Posttraumatic Stress Disorder: Similarities and differences. In Wilson, J.P. and



- Rapheal, B., (eds.) *International Handbook of Traumatic Stress Syndromes*, pp. 35-49. New York: Plenum Press.
- Bremner, J.D., Southwick, S.M., Johnson, D.R., Yehuda, R., Charney, D.S. (1993). Childhood physical abuse and combat-related posttraumatic stress disorder in Vietnam veterans. *American Journal of Psychiatry*, 150, 235-239.
- Breslau, N., Davis, G.C., Andreski, P. & Peterson, E. (1991). Traumatic events and *General Psychiatry*, 48, 216-222.
- Breslau, N., Schultz, L., & Peterson, E. (1995). Sex differences in depression: A role of preexisting anxiety. *Psychiatric Research*, 58, 1-12.
- Brewin, C.R., Andrews, B. & Valentine, J.D. (2000). Met-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology*, 68, 748-766.
- Brockington, I.F. (2005). Post-abortion psychosis, *Archives of Women's Mental Health* 8: 53-54.
- Broen, A.N., Moum, T., Bodtker, A.S., & Ekeberg, O. (2004). Psychological impact on women of miscarriage versus induced abortion: A 2-year follow-up study. *Psychosomatic Medicine*, 66 (2), 265-271.
- Broen, A.N., Moum, T., Bodtker, A.S., & Ekeberg, O. (2005a). The course of mental health after miscarriage and induced abortion: a longitudinal, five-year follow-up study. *BMC Medicine*, 3, 18.
- Broen, A.N., Moum, T., Bodtker, A.S., & Ekeberg, O. (2005b) Reasons for induced abortion and their relation to women's emotional distress: a prospective two-year follow-up study. *General Hospital Psychiatry*, 2005; 27: 36-43.
- Broen, A.N., Moum, T., Bodtker, A.S., & Ekeberg, O. (2006). Predictors of anxiety and depression following pregnancy termination: A longitudinal five-year follow up study. *Acta Obstetrica Gynecologica*, 85, 317-23.
- Brown, Y. (1993). Perinatal loss: A framework for practice. *Health Care for Women International*, 14, 5, 469-79.
- Bryant, R.A. & Harvey, A.G. (2003). Gender differences in the relationship between acute stress disorder and posttraumatic stress disorder following motor vehicle accidents. *Australian and New Zealand Journal of Psychiatry*, 37, 226-229.

- Buchanan, M. & Robbins, C. (1990). Early adult psychological consequences for males of adolescent pregnancy and its resolution. *Journal of Youth and Adolescence*, 19 (4), 413-424.
- Buchanan, T. & Smith, J.L. (1999). Using the Internet for psychological research: Personality testing on the World Wide Web. *British Journal of Psychology*, 90, 125-144.
- Burke, T. & Reardon, D. (2002). *Forbidden Grief: The Unspoken Pain of Abortion*. Springfield, Ill.: Acorn Books.
- Burke, T. K. and Cullen, B. (1995). *A Psycho- Spiritual Journey of Post Abortion Healing: A Model for Groups*. Alba House.
- Burnell, G.M., & Norfleet, M.A. (1987). Women's self-reported responses to abortion. *The Journal of Psychology*, 121, 71-76.
- Butlet, C. (1996). Late psychological sequelae of abortion: Questions from a primary care physician. *Journal of Family Practice*, 43, 396-401.
- Butterfield, M.I., Becker, M. & Marx, C.E. (2002). Post-traumatic stress disorder in women: Current concepts and treatments. *Current Psychiatry Reports*, 4, 474-486.
- Cameron, S. (2010). Induced abortion and psychological sequelae. *Best Practice & Research Clinical Obstetrics and Gynaecology*, doi: 10.1016/j.bpobgyn.2010.02.001
- Campbell, N., Franco, K. & Jurs, S. (1988). Abortion in adolescence. *Adolescence* 23, 813-823.
- Canadian Paediatric Society: Fetus and Newborn Committee (2001). Guidelines for health care professionals supporting families experiencing a perinatal loss. *Paediatrics & Child Health*, 6, 7, 469-477.
- Canario, C. Figueiredo, B. & Ricou, M. (2011). Women's and men's psychological adjustment after abortion: A six months prospective pilot study. *Journal of Reproductive and Infant Psychology*, 29(3), 262-275.
- Caplan, G. (1961). *An Approach to Community Mental Health*. New York: Grune & Stratton, Inc.
- Carrera, L., Diez-Doming, J., Montanana, V., Sancho Monleon, J., Minguez, & Monelon, J. (1998). Depression in women suffering perinatal loss. *International Journal of Gynecology and Obstetrics*, 62, 2, 149-153.

- Casey, P.R., (2010). Abortion among young women and subsequent life outcomes. *Best Practice & Research Clinical Obstetrics and Gynaecology*.
- Cassidy, E.R. & Gentles, I. (2002). *Women's health after abortion: The medical and psychological evidence*. Toronto: de Veber Institute for Bioethics and Social Research.
- Charles V, Polis C, Sridhara S, & Blum R. (2008). Abortion and long-term mental health outcomes: A systematic review of the evidence. *Contraception*, 78, 436-450.
- Chambers, H.M and Chan, F.Y. (2002). Support for women and families after perinatal death. *The Cochrane Database of Systematic Reviews*, Issue I, 2002.
- Cohan, C.L., Dunkel-Schetter, C., & Lydon, J. (1993). Pregnancy decision making: Predictors of early stress and adjustment. *Psychology of Women Quarterly*, 17, 223-239.
- Cohen, L. and Roth, S. (1984). Coping with abortion. *Journal of Human Stress*, 10, 140-5.
- Cohen, J.A., Berliner, L., & March, J.S. (2000). Treatment of children and adolescents. In Foa, E.B, Keene, T.M., & Friedman, M.J. (eds.), *Effective Treatments for PTSD: Practice Guidelines from the International Society for Traumatic Stress Studies*, pp. 106-138. New York: The Guilford Press.
- Coleman, P.K. (2011). Abortion and mental health: quantitative synthesis and analysis of research published 1995-2009. *British Journal of Psychiatry*, 199, 180-186.
- Coleman, P.K. (2006). Resolution of unwanted pregnancy during adolescence through abortion versus childbirth: Individual and family predictors and psychological consequences. *Journal of Youth and Adolescence*, 35, 903-911.
- Coleman, P.K., Coyle, C.T. & Rue, V.M. (2010). Late-term elective abortion and susceptibility to posttraumatic stress symptoms. *Journal of Pregnancy*, 10, 1-10.
- Coleman, P.K., Coyle, C.T., Shuping, M. & Rue, V.M. (2011). Corrigendum to Induced abortion and anxiety, mood, and substance abuse disorders: Isolating the effects of abortion in the National Comorbidity Survey. *Journal of Psychiatric Research*, 43, 770-776.

- Coleman, P.K., Coyle, C.T., Shuping, M. & Rue, V.M. (2009). Induced abortion and anxiety, mood, and substance abuse disorders: Isolating the effects of abortion in the National Comorbidity Survey. *Journal of Psychiatric Research*, 43, 770-776.
- Coleman, P.K., Maxey, C.D., Rue, V.M., & Coyle, C.T. (2005). Associations between voluntary and involuntary forms of perinatal loss and child maltreatment among low-income mothers. *Acta Paediatrica*, 94 (10), 1476-1483.
- Coleman P.K., Maxey D.C., Spence M., Nixon C. (2009). The choice to abort among mothers living under ecologically deprived conditions: predictors and consequences. *International Journal of Mental Health and Addiction*, 7, 405-22.
- Coleman, P.K., Maxey, C.D., Spence, M. & Nixon, C.L. (2008). Predictors and correlates of abortion in the Fragile Families and Well-Being Study: Paternal behavior, substance use, and partner violence. *International Journal of Mental Health and Addiction*, 7 (3), 405-422.
- Coleman, P.K., & Nelson, E.S. (1998). The quality of abortion decisions and college students' reports of post-abortion emotional sequelae and abortion attitudes. *Journal of Social & Clinical Psychology*, 17, 425-442.
- Coleman, P.K., Reardon, D.C., & Cougle, J.R. (2005). Substance use among pregnant women in the context of previous reproductive loss and desire for current pregnancy. *British Journal of Health Psychology*, 10 (2), 255-268.
- Coleman, P.K., Reardon, D.C. & Cougle, J. (2002). The quality of care-giving and child development outcomes associated with maternal history of abortion using the NLSY data. *Journal of Child Psychology and Psychiatry*, 43, 6, 743-7.
- Coleman, P.K., Reardon, D.C., Rue, V.M., & Cougle, J. (2002a). A history of induced abortion in relation to substance use during subsequent pregnancies carried to term. *American Journal of Obstetrics and Gynecology*, 187, 1673-1678.
- Coleman, P.K., Reardon, D.C., Rue, V.M., & Cougle, J. (2002b). State-funded abortions versus deliveries: A comparison of outpatient mental health claims over 4 years. *American Journal of Orthopsychiatry*, 72, 141-152.

- Coleman, P.K., Reardon, D.C., Strahan, T., & Cogle, J.R. (2005). The psychology of abortion: A review and suggestions for future research. *Psychology and Health*, 20, 237-271.
- Coleman, P.K., Rue, V.M. & Coyle, C.T. (2009). Induced abortion and intimate relationship quality in the Chicago Health and Social Life Survey. *Public Health*, 123, 331-338.
- Coleman, P.K., Rue, V.M., Coyle, C.T. & Maxey, C.D. (2007). Induced abortion and child-directed aggression among mothers of maltreated children. *Internet Journal of Pediatrics and Neonatology*, 6 (2), ISSN: 1528-8374.
- Coleman, P.K., Rue, V.M. & Spence, M. (2007). Intrapersonal processes and post-abortion relationship challenges: A review and consolidation of the relevant literature. *Internet Journal of Mental Health*, 4 (2).
- Coleman, P.K., Rue, V.M., Spence, M. & Coyle, C.T. (2008). Abortion and the sexual lives of men and women: Is casual sexual behavior more appealing and more common after abortion? *International Journal of Health and Clinical Psychology*, 8 (1), 77-91.
- Congleton, G.K., & Calhoun, L.G. (1993). Post-abortion perceptions: A comparison of self-identified distressed and non-distressed populations. *International Journal of Social Psychiatry*, 39, 255-265.
- Congressional Record (1989). Medical and psychological impact of abortion. In: Hearing before the Human Resources and Intergovernmental Relations Subcommittee of the Committee on Government Operations, U.S. House of Representatives, One Hundred First Congress – First Session. Washington, D.C.: U.S. Governmental Printing Office.
- Conklin, M. P., & O'Connor, B. P. (1995). Beliefs about the fetus as a moderator of postabortion psychological well-being. *Journal of Social & Clinical Psychology*, 14, 76-95.
- Cote-Arsenault, D. & Dombeck, M.T.B. (2001). Maternal assignment of fetal personhood to a previous pregnancy loss: Relationship to anxiety in the current pregnancy. *Health Care for Women International* 22, 649-665.
- Cogle, J., Reardon, D., & Coleman, P. (2005). Generalized anxiety following unintended pregnancies resolved through childbirth

- and abortion: A cohort study using the National Survey of Family Youth. *Journal of Anxiety Disorders*, 19, 137-142.
- Cogle J., Reardon, D., & Coleman, P. (2003). Depression associated with abortion and childbirth: A long-term analysis of the NLSY cohort. *Medical Science Monitor*, 9, CR157-164.
- Cogle, J.R., Reardon, D.C., & Coleman, P.K. (2005). Generalized anxiety following unintended pregnancies resolved through childbirth and abortion: A cohort study of the 1995 National Survey of Family Growth. *Journal of Anxiety Disorders*, 19, 137-142.
- Cogle, J., Reardon, D.C., Coleman, P.K., & Rue, V. (2005). Generalized anxiety associated with unintended pregnancy: A cohort study of the 1995 National Survey of Family Growth. *Journal of Anxiety Disorders*, 19, 137-142.
- Coyle, C.T. (2007). Men and abortion: A review of empirical reports. *Internet Journal of Mental Health*, 3 (2), ISSN: 1531-2941.
- Coyle, C.T., Coleman, P.K. & Rue, V.M. (2010). Inadequate preabortion counseling and decision conflict as predictors of subsequent relationship difficulties and psychological stress in men and women. *Traumatology*, 16 (1), 16-30.
- Coyle, C. & Enright, R. (1997). Forgiveness intervention with post-aborted men. *Journal of Consulting and Clinical Psychology*, 65, 1042-1046.
- Coyle, C. & Rue, V. (2010). Men's experience of elective abortion: A mixed methods study of loss. *Journal of Pastoral Counseling*, 45: 4-31.
- Cozzarelli, C., Sumer, N. & Major, B. (1998). Mental models of attachment and coping with abortion. *Journal of Personality and Social Psychology*, 74 (2), 453-467.
- Cozzarelli, C., Karrasch, A., Sumer, N. & Major, B. (1994). The meaning and impact of partner's accompaniment on women's adjustment to abortion. *Journal of Applied Social Psychology*, 24, 2028-2056.
- Cozzarelli, C. (1993). Personality and self- efficacy as predictors of coping with abortion. *Journal of Personality and Social Psychology*, 65, 1224-1236.
- Crawford, D. & Mannion, M. (1989). *Psycho-Spiritual Healing After Abortion*. Kansas City, MO: Sheed & Ward.

- Dagg, P. (1981). The psychological sequelae of therapeutic abortion. *American Journal of Psychiatry*, 5, 578-585.
- David, H., Rasmussen, N. & Holst, E. (1981). Postpartum and postabortion psychotic reactions. *Family Planning Perspectives*, 13, 88-91.
- David, P., Reichenbach, L., Savelieva, I., Vartapetova, N., Potemkina, R. (2007). Women's reproductive health needs in Russia: what we can learn from an intervention to improve post-abortion care? *Health Policy Planning*, 92, 83-94.
- Denis, A., Parant, O. & Callahan, S. (2011). Post-traumatic stress disorder related to birth: A prospective longitudinal study in a French population. *Journal of Reproductive and Infant Psychology*, 29 (2), 125-135.
- De Puy, C. & Dovitch, D. (1997). *The Healing Choice: Your Emotional Guide to Recovery after an Abortion*. Ontario, CA.: Fireside Publishers.
- DeVeber, L., Ajzenstat, J. & Chisholm, D. (1991). Postabortion grief: Psychological sequelae of induced abortion. *Humane Medicine*, 7, 203-209.
- Di Marco, M.A., Menke, E.M. & McNamara, T. (2001). Evaluating a support group for perinatal loss. *Maternal Child Nursing*, 26, 3, 135-140.
- Dingle, K. & Alati, A. (2008). Pregnancy loss and psychiatric disorders in young women: An Australian birth cohort study. *British Journal of Psychiatry*, 193, 455-460.
- Dingle, K., Alati, R., Claravino, A., Najman, J.M. & Williams, G.M. (2008). Pregnancy loss and psychiatric disorders in young women: an Australian birth cohort study. *British Journal of Psychiatry*, 193, 455-460.
- Doherty, P. (ed.) (1995). *Post-abortion syndrome: Its wide ramifications*. Cambridge: Cambridge University Press.
- Dykes, K., Slade, P. & Haywood, A. (2010). Long term follow-up of emotional experiences after termination of pregnancy: Women's views at menopause. *Journal of Reproductive and Infant Psychology*, 1-20.
- Ekblad, M. (1955). Induced abortion on psychiatric grounds:



- A follow-up study of 479 women. *Acta Psychiatrica et Neurologica Scandinavica*, 99, 238.
- El-Mallakh, R. & Tasman, A. (1991). Recurrent abortions in a bulimic: Implications regarding pathogenesis. *International Journal of Eating Disorders*, 10, 215-219.
- Erickson, R.C. (1993). Abortion trauma: Application of a conflict model. *Pre and Perinatal Psychology Journal*, 8 , 10, 33-42.
- Esaulova, I. (1994). The abortion problem in Russia. Paper presented at the Fourth International Conference on Grief & Bereavement in Contemporary Society, Stockholm.
- Fayote, F.O., Adeyemi, A.B., Oladimeji, B.Y. (2004). Emotional distress and its correlates. *Journal of Obstetrics and Gynecology*, 5, 504-509.
- Fergusson, D., Horwood, J. & Boden, J. (2011). A further meta-analysis. *British Journal of Psychiatry*. Letter to the Editor re: Coleman (2011).
- Fergusson, D. Horwood, J, & Boden, J. (2009). Reactions to abortion and subsequent mental health. *The British Journal of Psychiatry*, 195, 420-426.
- Fergusson, D., Horwood, J., & Boden, J. (2008). Abortion and mental health disorders: Evidence from a 30-year longitudinal study. *British Journal of Psychiatry*, 193, 444-451.
- Ferguson, D., Horwood, J., and Ridder, E. (2006). Abortion in young women and subsequent mental health. *Journal of Child Psychology and Psychiatry*, 1, 16-24.
- Fisch, R. & Tadmor, O. (1989). Iatrogenic post- traumatic stress disorder, (letter), *The Lancet*, December 9, 1397.
- Fielding, S.L., & Schaff, E.A. (2004). Social context and the experience of a sample of U.S. women taking RU-486 (Mifepristone) for early abortion. *Qualitative Health Research*, 14, 612-627.
- Fisher, B. *et al.* (2000). A cognitive approach to patient-centered abortion care. In Beckman, L. & Harvey, S. (eds.). *The New Civil War: The psychology, culture, and politics of abortion*. American Psychological Association: Washington, D.C.
- Flenady, V. & Wilson, T. (2009). Support for mothers, fathers, and



- families after perinatal death. (Review). *The Cochrane Collaboration*. New Jersey: John Wiley and Sons, Ltd.
- Foa, E.B. (1997). Trauma and women: Course, predictors and treatment. *Journal of Clinical Psychiatry*, 58, 25-28.
- Fok, W.Y., Siu, S.N., & Lau, T.K. (2005). Sexual dysfunction after a first trimester induced abortion in a Chinese population. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, 126 (2), 255-258.
- Foy, D.W., Schmurr, P.P., Weiss, D.S., Wattenberg, M.S., Glynn, S.M., Marmar, C.R., & Gusman, F.D. (2001). Group psychotherapy for PTSD. In Wilson, J.P., Freidman, M.J., & Lindy, J.D. (eds.) *Treating Psychological Trauma and PTSD*. pp. 183-201. New York: The Guilford Press.
- Foy, D.M., Glynn, S.M., Schmurr, P.P., Jankowski, M.J., Wattenberg, M., Weiss, D., Marmar, C., & Gusman. (2004). Group Therapy. In, *Effective Treatment for PTSD: Practice Guidelines from the International Society for Traumatic Stress Studies*. Ed. Foa, E.B, Keene, T.M., and Freidman, M.J. pp. 155-176. The Guilford Press: New York.
- Franco, K. *et al.* (1989). Anniversary reactions and due date responses following abortion. *Psychotherapy and Psychosomatics*, 52, 151-154.
- Franco, K., Tamburino, M.B., Campbell, N.B. Pentz, J.E. and Jurs, S.G. (1989). Psychological profile of dysphoric women post abortion. *Journal of The American Medical Women's Association*, 44, 4, 113.
- Franz, W. & Reardon, D. (1992). Differential aspects of abortion on adolescence. *Adolescence*, 27, 105, 160-172.
- Franz, W., & Reardon, D. (1992). Differential impact of abortion on adolescents and adults. *Adolescence*, 27 (105), 161-172.
- Freed, L. & Salazar, P. (1993). *A Season to Heal: Help and Hope for Those Working Through Post-Abortion Stress*. Nashville, TN.: Thomas Nelson.
- Freeman, E. (1980) Emotional distress patterns among women having first or repeat abortions. *Obstetrics & Gynecology*, 55, 5, 630-636.
- Furlong, R. & Black, R. (1984). Pregnancy termination for genetic indications: The impact on families. *Social Work Health Care*, 10 (1): 17-34.

- Gavranidou, M. & Rosner, R. (2003). The weaker sex? Gender and posttraumatic stress disorder. *Depression and Anxiety*, 17, 130-139.
- Gilchrist, A.C., Hannaford, P.C., Frank, P. & Kay, C.R. (1995). Termination of pregnancy and psychiatric morbidity. *The British Journal of Psychiatry*, 167, 243-248.
- Gissler, M., Berg, C., Bouvier-Colle, M., & Buekens, P. (2005). Injury, deaths, suicides and homicides associated with pregnancy in Finland 1987-2000. *The European Journal of Public Health*, 15, 459-463.
- Gissler, M., Berg, C., Bouvier-Colle, M., & Buekens, P. (2004). Pregnancy associated mortality after birth, spontaneous abortion, or induced abortion in Finland, 1987-2000. *American Journal of Obstetrics and Gynecology*, 190, 422-7.
- Gissler, M., Hemminki, E. & Lonnqvist, J. (1996). Suicides after pregnancy in Finland 1987-1994: Register linkage study. *British Medical Journal*, 313, 1431-1434.
- Goenjian, A.K., Karayan, I., Pynoos, R.S., Minassian, D., Najarian, L.M., Stienberg, A.M., & Fairbanks, L.A. (1997). Outcome of psychotherapy among early adolescents after trauma. *American Journal of Psychiatry*, 154, 536-542.
- Gold, D., Berger, C. & Andres, D. (1979). *The abortion choice: Psychological determinants and consequences*. Montreal: Concordia University, Dept. of Psychology.
- Gordon, R.A. & Kilpatrick, C. (1977). A program of group counseling for men who accompany women seeking legal abortions. *Community Mental Health Journal*, 13 (4), 291-295.
- Gordon, R.A. (1978). Efficacy of a group crisis-counseling program for men accompanying women seeking abortions. *American Journal of Community Psychology*, 6 (3), 239-246.
- Gosling, S.D., Vazire, S., Srivastava, S. & John, O.P. (2004). Should we trust web-based studies? *American Psychologist*, 59 (2), 93-104.
- Gould, N.B. (1980). Postabortion depressive reactions in college women. *Journal of College Health Association*, 28, 316-320.
- Gray, K. and Lassance A. (2003). *Grieving Reproductive Loss: The Healing Process*. New York: Baywood Publishing Co.
- Greer, H., Lal S, Lewis S., Belsey, E., & Beard, R. (1976). Psychosocial

- consequences of therapeutic abortion: King's Termination Study III. *British Journal of Psychiatry*, 128, 7474-9.
- Grossman, M. Lee, V., Van Neste, K. McHarg, L., Godin, M., & Chambers-Evans, J. (2000). Psychological adjustment of critically injured patients three months after unexpected, potentially life-threatening accident. *Journal of Clinical Nursing*, 9, 800-815.
- Guilbert, E., & Rotter, D. (1997). Assessment of satisfaction with induced abortion procedure. *The Journal of Psychology*, 131, 157-166.
- Guttmacher Institute, (July, 2008). Facts on induced abortion in the United States.
- Guyatt G. & Rennie, D. (2002). Users' Guide to the Medical Literature: A manual for evidenced-based clinical practice. *JAMA Archives and Journals*. 2002 198.
- Haishan, F., Darroch, J.E., Henshaw, S.K., & Kolb, E. (1998). Measuring the extent of abortion underreporting in the 1995 National Survey of Family Growth. *Family Planning Perspectives*, 30 (3).
- Hamama, L., Rauch, S., Sperlich, M. Defever, E. & Seng, J.S. (2010). Previous experience of spontaneous or elective abortion and risk for posttraumatic stress and depression during subsequent pregnancy. *Depression and Anxiety*, 0, 1-9.
- Hanley, D., Piersma, H., Kind, D., Larson, D. & Foy, D. (1992). *Women outpatients reporting continuing post-abortion distress: A preliminary inquiry*. Paper presented at the annual meeting of the International Society for Post-Traumatic Stress Studies, Los Angeles.
- Harlow, B.L., Cohen, L.S., Otto, M.W., Spiegelman, D., & Cramer, D.W. (2004). Early life menstrual characteristics and pregnancy experiences among women with and without major depression: the Harvard Study of Mood and Cycles. *Journal of Affective Disorders*, 79, 167-176.
- Harvard. Medical School (2008). *Phase-Oriented Treatment of Psychological Trauma: Evidence-Based Treatment of Simple and Complex Trauma- A Comparison of Treatment Manuals*. Conference, December 12-14, 2008.
- Health Canada (2000). Perinatal health indicators for Canada. *Canadian Perinatal Surveillance System*. Minister of Health, Ottawa.

- Hemmerling, F., Siedentoff, F., & Kentenich, H. (2005). Emotional impact and acceptability of medical abortion with mifepristone: A German experience. *Journal of Psychosomatic Obstetrics & Gynecology*, 26, 23-31.
- Henshaw, S, Naji, S., Russell, L. & Templeton, A. (1994). Psychological responses following medical abortion (using mifepristone and genepost) and surgical vacuum aspiration.: a patient-centered partially randomized prospective study, *Acta Obstetrica et Gynecologica Scandinavia*, 73, 812-818.
- Henshaw, S.K. (1990). Induced abortion: A world review. *International Family Planning Perspectives*, 16, 2, June 1990, pp. 59-65 + 76.
- Henshaw, S., Singh, S. & Hass, T. (1999). The incidence of abortion worldwide. *International FamilyPlanning Perspectives*, 25, (Suppl.), S30-S38.
- Herman, J. (1992). *Trauma and Recovery*. New York: Basic Books.
- Hess, R. (2004). Dimension of women's long-term post-abortion experience. *The American Journal of Maternal Child Nursing*, May/June 29; 3 193-198.
- Hewson, C. & Charlton, J.P. (2005). Measuring health beliefs on the Internet: A comparison of paper and Internet administrations of the Multidimensional Health Locus of Control Scale. *Behavior Research Methods*, 37 (4), 691-702.
- Hittner, A. (1987). Feelings of well-being before and after abortion. *American Mental Health Counselors Association Journal*, 9, 98-104.
- Hoeldtke, N.J. (2004). Mortality after abortion. *American Journal of Obstetric and Gynecology*, 191, 6.
- Holmes, M.C. (2004). Reconsidering a "woman's issue:" Psychotherapy and one man's postabortion experiences. *American Journal of Psychotherapy*, 58 (1), 103-115.
- Hope, T.L., Wilder, E.I., & Terling Watt, T. (2003). The relationships among adolescent pregnancy, pregnancy resolution, and juvenile delinquency. *Sociological Quarterly*, 44, 555-576.
- Horowitz, M.J. (2003a). *Treatment of Stress Response Syndromes*. Washington, D.C.: American Psychiatric Press.
- Horowitz, M.J. (2000b). *Stress response syndromes*. (Fourth ed.). New Jersey: Jason Aronson, Inc.

- Horowitz, M.J. (1974c). Stress response syndromes. *Archives of General Psychiatry*, 31, 796.
- Horowitz, N.H. (1978). Adolescent mourning reactions to infant and fetal loss. *Social Casework*, 551-559.
- Houston, H. & Jacobson, L. (1996). Overdose and termination of pregnancy: An important association? *British General Practice*, 46, 737-738.
- Huang, Z., Hao, J., Su, P., Huang, K., Xing, X., Cheng, D., Xiao, L., Xu, Y., Zhu, X. & Tao, F. (2012). The impact of prior abortion on anxiety and depression symptoms during a subsequent pregnancy: Data from a population-based cohort study in China. *Bulletin of Clinical Psychopharmacology*, 22 (1), 51-58.
- Hunfeld, J.A., Wladimiroff, J.W. and Passchier, J. (1997). The grief of late pregnancy loss. *Patient Education and Counseling*, 31, 57-64.
- Husfeldt, C., Hansen, S.K., Lyngberg, A., Noddebo, M., & Pettersson, B. (1995). Ambivalence among women applying for abortion. *Acta Obstetricia et Gynecologica Scandinavica*, 74, 813-17.
- Illsley, R. & Hall, M.H. (1976). Psychological aspects of abortion: A review of issues and needed research. *Bulletin of the World Health Organization*, 53, 83-103.
- International Council of Nurses. ICN (2001). *Focus of Nursing Practice*. Geneva: Author.
- Jacobs, S. (1999 ). *Traumatic Grief*. Florence, KY: Psychology Press.
- Janssen, H.J., Cuisinier, M.C., de Graauw, K.P., and Hoogduin, K.A. (1997). A prospective study of risk factors predicting grief intensity following pregnancy loss. *Archives of General Psychiatry*, 54, 56-61.
- Johnson, D. & Lubin, H. (2000). Group psychotherapy for symptoms of posttraumatic stress disorder. In Klein, R.H. & Schermer, V.L. (eds.). pp. 141-169. *Group Psychotherapy for Psychological Trauma*. New York: The Guilford Press.
- Jones, E.F. & Forrest, J.D. (1992). Under reporting of abortion in surveys of U.S. women: 1976 to 1988. *Demography*, 29, 113-126.
- Jones, R.K. & Kost, K. (2007). Underreporting of induced and spontaneous abortion in the United States: An analysis of the 2002 National Survey of Family Growth. *Studies in Family Planning*, 38 (3), 187-197.

- Jones, R.K., Frohwirth, L.F. & Moore, A.M. (2008). "I would want to give my child, like, everything in the world.: How issues of motherhood influence women who have abortions. *Journal of FamilyIssues*, 29 (1), 79-99.
- Jones, O.W., Penn, N.E., Shuchter, S., Stafford, C.A., Richards, T., Kernahan, C., Gutierrez, J., Cherkin, P., Reinsch, S. & Dixon, B. (1984). Parental response to mid-trimester therapeutic abortion following amniocentesis. *Prenatal Diagnosis*, 4 (4), 249-256.
- Kapfhammer, H.P., Rothenhausler, H.B., Krauseneck, T., Stoll, C. & Schelling, G. (2004). Posttraumatic stress disorder and health-related quality of life in long-term survivors of acute respiratory distress syndrome. *American Journal of Psychiatry*, 161, 45-52.
- Kelly, T., Suddes, J., Howel, D., Hewison, J. & Robson, S. (2010). Comparing medical versus surgical termination of pregnancy at 13-20 weeks of gestation: A randomized controlled trial. *BJOG an International Journal of Obstetrics and Gynaecology*, 117, 1512-1520.
- Kent, I., Greenwood, R.C., Loeken, J. & Nicholls, W. (1978). Emotional sequelae of elective abortion. *British Columbia Medical Journal*, 20, 118-119.
- Kero, A., Hoegberg, U., Jacobsson, L., & Lalos, A. (2001). Legal abortion: A painful necessity. *Social Science and Medicine*, 53, 1481-1490.
- Kero, A., Hoegberg, U., & Lalos, A. (2004). Wellbeing and mental growth – long-term effects of legal abortion. *Social Science and Medicine*, 58, 2559-2569.
- Kero A, Lalos A. (2000). Ambivalence – a logical response to legal abortion: a prospective study among women and men. *Journal of Psychosomatic Obstetrics and Gynecology*, 21, 81-91.
- Kero, A. & Lalos, A. (2004). Reactions and reflections in men, 4 and 12 months post-abortion. *Journal of Psychosomatic Obstetrics and Gynecology*, 25 (2), 135-143.
- Kero, A., Lalos, A., Hogberg, U. & Jacobsson, L. (1999). The male partner involved in legal abortion. *Human Reproduction*, 14 (10), 2669-2675.
- Kersting, A., Dorsch, M., Kreulich, C., Reutemann, M., Ohrmann, P., Baez, E. & Arolt, V. (2005). Trauma and grief 2-7 years after

- termination of pregnancy because of fetal anomalies – a pilot study. *Journal of Psychosomatic Obstetrics & Gynecology*, 26 (1), 9-14.
- Kersting, A., Dorsch, M., Kreulich, C. & Baez, E. (2004). Psychological stress response after miscarriage and induced abortion. *Psychosomatic Medicine*, 66 (5), 795-796.
- Kessler, R.C., Sonnega, A., Bromet, E., Hughes, M. & Nelson, C.B. (1995). Posttraumatic stress disorder in the national comorbidity survey. *Archives of General Psychiatry*, 52, 1048-1060.
- Kimport, K., Foster, K. & Weitz, T. (2011). Social sources of women's emotional difficulty after abortion: Lessons from women's abortion narratives. *Perspectives on Sexual and Reproductive Health*, 43 (2), 103-109.
- Kirchoff, KT, Wells, TJ (2002) Patient-Centered Interventions. *Research in Nursing & Health*, 25, 246-255.
- Kirschbaum, B.M., Kudielka, J., Gaab, N.C., Schommer, and D. Hellhammer. (1999). The impact of gender, menstrual cycle, and oral contraceptives on the activity of the hypothalamic-pituitary-adrenal axis. *Psychosomatic Medicine*, 61 (2) 154-162.
- Kitamura, T., Toda, M.A., Shima, S., & Sugawara, M. (1998). Single and repeated elective Abortions in Japan: A psychosocial study. *Psychosomatic Obstetrics and Gynecology*, 19, 126-134.
- Knapp, H. & Kirk, S.A. (2003). Using pencil and paper, Internet, and touch-tone phones for self-administered surveys: Does it really matter? *Computers in Human Behavior*, 19, 117-134.
- Koop, C.E. (1989). *Testimony before the Human Resource and Intergovernmental Relations Subcommittee: U.S. House of Representatives*, 101 Congress, First Session, Washington, D.C. March 16, 1989.
- Kornfield, S.L. & Geller, P.A. (2010). Mental health outcomes of abortion and its alternatives: Implications for future policy. *Women's Health Issues*, 20, 92-95.
- Kraut, R., Olson, J., Banaji, M., Bruckman, A., Cohen, J. & Couper, M. (2004). Psychological research online: Report of board of scientific affairs' advisory group on the conduct of research on the Internet. *American Psychologist*, 59 (2), 105-117.
- Kubany, E.S., Hill, E.E. & Owens, J.A. (2003). Cognitive trauma



- therapy for battered women with PTSD: Preliminary findings. *Journal of Traumatic Stress*, 16, 81-91.
- Kulka, R.A., Schlenger, W.E. & Fairbank, J.A. *et al.* (1988). National Vietnam Veterans Readjustment Survey (NVVRS): Description, Current Status, and Initial PTSD Estimates. Research Triangle Park, NC, Research Triangle Institute.
- Kumar, R. and Robson, K. (1978). Previous induced abortion and ante-natal depression in primiparae: Preliminary report of a survey of mental health in pregnancy. *Psychological Medicine*. 1978; 8: 711-715.
- Larsen, J. (1999). Post-abortion syndrome-a grief subverted. *South African Medical Journal*, 89 (6), 576.
- Lauver, DR, Ward, S.E., Heidrich, SM., Keller, M.L., Bowers, BJ, Brennan, PF, Kirchoff, KT, Wells, TJ (2002) Patient-Centered Interventions. *Research in Nursing & Health*, 25, 246-255.
- Lauzon, P., Roger-Achim, D., Achim, A., & Boyer, R. (2000). Emotional distress among couples involved in first-trimester induced abortions. *Canadian Family Physician*, 46, 2033-2040.
- Lavín, C.G. & Garcia, R.Z. (2005). Diagnostic categorization of post-abortion syndrome. *Actas Español Psiquiátrica*, 33 (4), 267-272.
- Layer, S.D., Roberts, C., Wild, K., & Walters, J. (2004). Post abortion grief: Evaluating the possible efficacy of a spiritual group intervention. *Research on Social Group Practice*, 14, 344-350.
- Lazarus, A. & Stern, R. (1986). Psychiatric aspects of pregnancy termination. *Clinics in Obstetrics & Gynaecology* 13, 125-134.
- Lazarus, A. (1985). Psychiatric sequelae of legalized elective first trimester abortion. *Journal of Psychosomatic Obstetrics & Gynecology*, 4, 141-150.
- Lemkau, J.P. (1991) Post-abortion adjustment of health care professionals in training. *American Journal of Orthopsychiatry*, 61 (1), 92-102.
- Lemkau, J.P. (1988). Emotional sequelae of abortion: Implications for clinical practice. *Psychology of Women Quarterly*, 12, 461-472.
- Levine, S., Ancill, R.J. & Roberts, A.P. (1989). Assessment of suicide risk by computer-delivered self-rating questionnaire: Preliminary findings. *Acta-Psychiatrica-Scandinavica*, 80, 216-220.



- Lewis, W.J. (1997). Factors associated with post-abortion adjustment problems: Implications for triage. *The Canadian Journal of Human Sexuality*, 6, 9-17.
- Lindahl V., Pearson J.L. & Cope, L. (2005). Prevalence of suicidality during pregnancy and the postpartum. *Archives of Women's Mental Health*. 8: 77-87.
- Lipp, A. (2008). A women centered service in termination of pregnancy: a grounded theory approach. *Contemporary Nurse*. Dec, 31, 2008. 1, 9-19
- Lipp, A. (2009). Termination of pregnancy: A review of psychological effects on women. *Nursing Times*, 105 (1), 26-29.
- Litz, B. and Maguen, S. (2007). Early intervention for trauma. In Friedman, M., Keane, T. and Resick, P. (ed.) *Handbook of PTSD: Science and Practice* (pp 306-330). New York: The Guilford Press.
- Llewellyn, S.P., & Pytches, R. (1988). An investigation of anxiety following termination of pregnancy. *Journal of Advanced Nursing*, 13, 468-471.
- Locke, S.D. & Gilbert. B.O. (1995). Method of psychological assessment, self-disclosure, and experiential differences: A study of computer, questionnaire, and interview assessment formats. *Journal of Social Behavior and Personality*, 10, 255-263.
- Lodl, K. McGettigan, A. & Bucy, J. (1985). Women's responses to abortion. *Journal of Social Work & Human Sexuality*, 3, 119-132.
- Lofgren, M. and Backstrom, T. (1990). Serum concentrations of progesterone and 5- alpha-pregnane-3, 20-dione during labor and early postpartum. *Acta Obstetrica Gynecologica Scandinavia*, 69, 123-126.
- Lyndon, J., Dunkel-Schetter, C., Cohan, C.L., & Pierce, T. (1996). Pregnancy decision-making as a significant life event: A commitment approach. *Journal of Personality and Social Psychology*, 71, 141-151.
- Magyari, P., Wedehase, B., Ifft, R. & Callanan, N. (1987). A supportive intervention protocol for couples terminating a pregnancy for genetic reasons. *Birth Defects*, 23, 75-83.
- Major, B. (1989). Self-blame, self-efficacy and adjustment to abortion. *Journal of Personality and Social Psychology*, 5, 1059-1068.
- Major, B. & Cozzarelli, C. (1992). Psychological predictors of adjustment to abortion. *Journal of Social Issues*, 48, 121-142.

- Major, B., Cozzarelli, C., Cooper, M.L., Zubek, J., Richards C., Wilhite, M., & Gramzow, R.H. (2000). Psychological responses of women after first trimester abortion. *Archives of General Psychiatry*, 57, 777-84.
- Major, B. Cozzarelli, C., Sciacchitano, M.L., Cooper, M., Tests, M. and Mueller, P.M. (1990). Personal resilience, cognitive appraisal, and coping: An integrative model of adjustment to abortion. *Journal of Personality and Social Psychology*, 59, 452-463.
- Major, B. and Granzow, R. (1999). Abortion as stigma: Cognitive and emotional implications of concealment. *Journal of Personality and Social Psychology*, 77, 4, 735-745.
- Major, B., Richards, C., Cooper, M.L., Cozzarelli, C. & Zubek, J. (1998). Personal resilience, cognitive appraisals, and coping: An integrative model of adjustment to abortion. *Journal of Personality & Social Psychology*, 74 (3), 735-752.
- Major, B., Zubek, J.M., Cooper, M.L. Cozzarelli, C. & Richards, C. (1997). Mixed messages: Implications of social conflict and social support within close relationships for adjustment to a stressful life event. *Journal of Personality and Social Psychology*, 72, 1349-1363.
- Mall, D. & Watts, W. (eds.) (1979). *The psychological aspects of abortion*. Washington, D.C.: University Publications of America.
- Mangan, M.A. & Reips, U. (2007). Sleep, sex, and the web: Surveying the difficult-to-reach population suffering from sexsomnia. *Behavior Research Methods*, 39 (2), 223-236.
- Mannion, M. (1994). *Post-Abortion Aftermath: A Comprehensive Consideration*. Kansas City, MO: Sheed & Ward.
- March, J, Amaya- Jackson, L. Murray, M., & Schulte, A. (1998). Cognitive – behavioral psychotherapy for children and adolescents with post-traumatic stress disorder following a single incident stressor. *Journal of the American Academy of Child and Adolescent Psychiatry*, 37, 6, 585-593.
- Marmar, C.R., Weiss, D.W., Schlenger, W.F., Fairbank, J.A., Jordan, K., Kulka, R.A. & Hough, R. (1994). Peri-traumatic dissociation and posttraumatic stress in male Vietnam theater veterans. *American Journal of Psychiatry*, 151, 6, 902-907.

- Marshall, R.D., Olfson, M., Hellman, F., Blanco, C., Guardino, M. & Struening, E.L. (2001). Comorbidity, impairment, and suicidality in subthreshold PTSD. *American Journal of Psychiatry*, 158 (9), 1467-1473.
- Massé, S. & Phillips, J. (1998). *Her Choice to Heal*. Colorado Springs, CO.: Chariot Victor.
- Mathy, R.M., Schillace, M., Coleman, S.M., & Berquist, B.E. (2002). Methodological rigor with internet samples: New ways to reach underrepresented populations. *Cyber Psychology and Behavior*, 5 (3), 253-266.
- Mattinson, J. (1985). The effects of abortion on a marriage. Abortion: Medical Progress and social implications, *Ciba Foundation Symposium*, 115, 165-177.
- McCall, R.K. and McCall, F.M. (1980). Ritual mourning in anorexia nervosa. *The Lancet*, August 16, 1980, p. 368.
- MacNair, R. (2005). *Perpetration-Induced Traumatic Stress: The Psychological Consequences of Killing*. New York: Authors Choice Press.
- McCann, I. & Pearlman, L. (1990). *Psychological trauma and the adult survivor: Theory, therapy and transformation*. New York: Brunner/Mazel.
- McCraw, R.K. (1989). Obsessive-compulsive disorder apparently related to abortion. *American Journal of Psychotherapy*, 43 (2), 269-276.
- McEwen, B.S. (1998). Protective and damaging effects of stress mediators. *The New England Journal of Medicine*, 338, 8, 171-179.
- Melnyk, B.M. & Fineout-Overholt E. (2005). *Evidenced-Based Practice in Nursing and Healthcare: A Guide to Best Practice*. Philadelphia: Lippincott Williams and Wilkins.
- Medical Research Council (2000). *A Framework for the Development and Evaluation of RTC's for Complex Interventions to Improve Health*. London: MRC.
- Mester, (1978). Induced abortion in psychotherapy. *Psychotherapy and Psychosomatics*, 30, 98-104.
- Meyerson, P. & Tryon, W.W. (2003). Validating internet research: A test of the psychometric equivalence of internet and in-person

- samples. *Behavior Research Methods, Instruments & Computers*, 35 (4), 614-620.
- Michels, N. (1988). *Helping women recover from abortion*. Minneapolis, MN: Bethany.
- Miller, L. (2003). Denial of pregnancy. In Spinelli, M. (Ed). *Infanticide: Psychosocial and Legal Perspectives on Mothers who Kill*. (pp. 81-104). Washington, DC: American Psychiatric Publishing.
- Miller, W.B. (1992). An empirical study of the psychological antecedents and consequences of induced abortion. *Journal of Social Issues*, 48, 67-93.
- Miller, W.B., Pasta, D.J., & Dean, C.L. (1998). Testing a model of the psychological consequences of abortion. In L.J. Beckman and S.M. Harvey (eds.), *The new civil war: The Psychology, Culture, and Politics of Abortion*. Washington, DC: American Psychological Association.
- Morbidity and Mortality Weekly Report* (2010). Abortion Surveillance.
- Morgan, C., Evans, M., Peter, J. & Currie, C. (1997). Suicides after Pregnancy (Letter). *British Medical Journal*, 314, 902.
- Moseley, D.T., Follingstad, D.R., Harley, H., & Heckel, R.V. (1981). Psychological factors that predict reaction to abortion. *Journal of Clinical Psychology*, 37, 276-279.
- Mota, N.P., Burnett, M., & Sareen, J. (2010). Associations between abortion, mental disorders, and suicidal behavior in a nationally representative sample. *The Canadian Journal of Psychiatry*, 55, 4, 239-247.
- Mueller, P., Mufel, N., Speckhard, A. & Sivuha, S. (2002) Predictors of Posttraumatic Stress Disorder Following Abortion in a Former Soviet Union Country. *Journal of Prenatal & Perinatal Psych & Health*, 17, 41-61.
- Mufel, N., Speckhard, A., Sivuha, S. (2002). Predictors of posttraumatic stress disorder following abortion in a former Soviet Union country. *Journal of Prenatal and Perinatal Psychology*, 17, 1, 41-46.
- Mufel, N. (2000). Decision-making for abortion in adolescents. *Health and living Scientific Journal*, 3, 43-48.
- Munk-Olsen, T., Munk Laurson, T., Pedersen, C.B., Lidegaard, O. & Mortensen, P.B. (2011). Induced first trimester abortion and risk

- of mental disorder. *The New England Journal of Medicine*, 364 (4), 332-339.
- Myburgh M., Gmeiner A., van Wyk S. (2001a). The experience of biological fathers of their partners' termination of pregnancy. *Health SA Gesondheid*, 6 (1), 28-37.
- Myburgh, M., Gmeiner, A. & van Wyk, S. (2001b). Support for adult biological fathers during termination of their partners' pregnancies. *Health SA Gesondheid*, 6 (1), 38-48.
- National Abortion Federation (2005). *Clinical Policy Guidelines*. Washington, DC: National Abortion Federation, 5.
- National Abortion Federation (2007). *Clinical Policy Guidelines*. Washington, D.C.
- National Collaborating Centre for Mental Health (2011). *Induced Abortion and Mental Health: A Systematic Review of Induced Abortion, Including their Prevalence and Associated Factors*. London: Academy of Medical Royal Colleges.
- Naziri, D. (2007). Man's involvement in the experience of abortion and the dynamics of the couple's relationship: A clinical study. *The European Journal of Contraception and Reproductive Health Care*, 12 (2), 168-174.
- Needle, R.B. & Walker, L.E. (2007). *Abortion Counseling*. New York: Springer.
- Ney, P.G. (1994). Emotional and physical effects of pregnancy loss on the women: A multi-centered study on post abortion syndrome and post abortion survivor syndrome. In Mannion, M. (ed.). *Post Abortion Aftermath* (pp. 69-87). Kansas City, MO: Sheed and Ward.
- Ney, P.G. (1993). Post-abortion survivors syndrome. *Canadian Journal of Psychiatry*, 38 (8), 577-578.
- Ney, P.G., Fung, T., & Wickett, A.R. (1993). Relations between induced abortion and child abuse and neglect: Four studies. *Pre and Perinatal Psychology Journal*, 8, 43-63.
- Ney, P.G., Fung, T., Wickett, A.R., & Beaman-Dodd, C. (1994). The effects of pregnancy loss on women's health. *Social Science & Medicine*, 38, 1193-1200.
- Ney, P., Sheils, C. & Gajowy, M. (2006). Post abortion survivor syndrome (PASS): Signs and symptoms. *Southern Medical Journal*, 99 (12), 1405-1406.

- Ney, P.G. & Wickett, A. (1989). Mental health and abortion: Review and analysis. *Psychiatric University of Ottawa*, 14, 4, 506-516.
- O'Hara, M.W., Swain, A.M. (1996). Rates and risk of postpartum depression: a meta-analysis *International Review of Psychiatry*. 8, 37-54.
- O'Keefe, M. (1998). Posttraumatic stress disorder among incarcerated battered women: A comparison of battered women who killed their abusers and those incarcerated for other offenses. *Journal of Traumatic Stress*, 11, 71-85.
- Osofsky, J.D. & Osofsky, H.J. (1972). The psychological reaction of patients to legalized abortion. *American Journal of Orthopsychiatry*, 42, 48-60.
- Ostbye, T., Wenghofer, E.F., Woodward, C.A., Gold, G., & Craighead, J. (2001). Health services utilization after induced abortions in Ontario: A comparison between community clinics and hospitals. *American Journal of Medical Quality*, 16, 99-106.
- Owings, M.F. & Kozak, L.J. (1996). Ambulatory and inpatient procedures in the United States, 1996. *Vital and Health Statistics*, 13 (139).
- Patterson, M.J., Hill, R.P., & Maloy, K. (1995). Abortion in America: A consumer-based perspective. *Journal of Consumer Research*, 21, 677-694.
- Paul, M., Lichtenberg, E., Borgatta, L., Grimes, D. & Stubblefield, P. (eds.) (1999). *A Clinician's Guide to Medical and Surgical Abortion*. New York: Churchill Livingstone.
- Paul, M., Lichtenberg, E., Borgatta, L., Grimes, D., Stubblefield, P. & Creinin, M. (eds.) (2009). *Management of Unintended and Abnormal Pregnancy: Comprehensive Abortion Care*. Chichester, West Sussex, UK: Blackwell.
- Payne, E.C., Kravitz, A.R., Notman, M.T. & Anderson, J.V. (1976). Outcome following therapeutic abortion. *Archives of General Psychiatry*, 33 (6), 725-733.
- Pedersen, W. (2007). Childbirth, abortion and subsequent substance use in young women: a population-based longitudinal study. *Addiction*, 102 (12), 1971-78.
- Pederson, W. (2008). Abortion and depression: A population-based longitudinal study of young women. *Scandinavian Journal of Public Health*, 36, 424-428.

- Pederson, C., Stern, R., Pate, J. (1993). Thyroid and adrenal measures during late pregnancy and the puerperium in women who have major depression or who become dysphoric postpartum. *Journal of Affective Disorders*, 29, 201-211.
- Peppers, L. & Knapp, J. (1987). Grief and elective abortion. *Omega*, 18: 1-12.
- Peppers, L.G. (1989). Grief and elective abortion: Implications for the counselor. In *Disenfranchized Grief: Recognizing Hidden Sorrow* (pp. 135-146). Dolka, K. (ed.). Lexington Books: Lexington, MA.
- Poggenpoel, M. & Myburgh, C.P.H. (2002). The developmental implications of a termination of pregnancy on adolescents with reference to the girl and her partner. *Education*, 122 (4), 731-831.
- Pope, L.M., Adler, N.E., & Tschann, J.M. (2001). Post-abortion psychological adjustment: Are minors at increased risk? *Journal of Adolescent Health*, 29, 2-11.
- Popov, A. (1990). Sky-high abortion rates reflect dire lack of choice. *European Family Planning Magazine*, 16, 5-7.
- Popov, A. (1996). Family planning and induced abortion in post-Soviet Russia of the early 1990's: Unmet needs in information supply. In DaVanzo, J. (ed.) *Russia's demographic "crisis."* Santa Monica, CA: Rand.
- Posavac, E., & Miller, T. (1990). Some problems caused by not having a conceptual foundation for health research: An illustration from studies of the psychological effects of abortion. *Psychology and Health*, 5, 13-23.
- Potvin, L., Lasker, J. and Toedter, L. (1989). Measuring grief: A short version of the Perinatal Grief Scale. *Journal of Psychopathology and Behavioral Assessment*, 11, 1, 29-42.
- Prommanart, N., et al. (2004). Maternal grief after abortion and related factors. *Journal of the Medical Association of Thailand*, 87, 1275-1280.
- Rankin, A. (1989). Post abortion syndrome. *Health Matrix*, 7 (2), 45-47.
- Rasmussen, A.M. and Charney, D.S. (2000). Posttraumatic therapy. *Encyclopedia of Stress* (pp. 192- 200). St. Louise, MO.: Elsevier.
- Reardon, D.C., & Coleman, P.K. (2006). Relative treatment for sleep disorders following abortion and child delivery: A prospective record-based study. *Sleep*, 29 (1), 105-106.



- Reardon, D.C., Coleman, P.K., & Cougle, J.R. (2004). Substance use associated with unintended pregnancy outcomes in the National Longitudinal Survey of Youth. *American Journal of Drug and Alcohol Abuse*, 30 (2), 369-383.
- Reardon, D.C, Coleman, P.K., & Cougle, J.R. (2004). Substance use associated with unintended pregnancy outcomes in the National Longitudinal Survey of Youth. *American Journal of Drug and Alcohol*, 30, 2, 369-383.
- Reardon, D.C., Cougle, J., Rue, V.M., Shuping, M.W., Coleman, P. & Ney, P.G. (2003). Psychiatric admissions of low-income women following abortion and childbirth. *Canadian Medical Association Journal*, 168, 10, 1253-1256.
- Reardon, D.C. Cougle, J.R (2002). Depression and unintended pregnancy in the National Longitudinal Study of youth: A cohort study, *British Medical Journal*, 324, 151-152.
- Reardon, D.C., & Cougle, J.R. (2002b). Depression and unintended pregnancy in the National Longitudinal Survey of Youth: A cohort study: Reply. *British Medical Journal*, 324 (7345), 1097-1098.
- Reardon, D.C., & Ney, P.G. (2000). Abortion and subsequent substance abuse. *American Journal of Drug and Alcohol Abuse*, 26, 61-75.
- Reardon, D.C., Ney, P.G., Scheuren, F., Cougle, J., Coleman, P.K., & Strahan, T.W. (2002). Deaths associated with pregnancy outcome: A record linkage study of low income women. *Southern Medical Journal*, 95 (8), 834-841.
- Rees, D.I. & Sabia, J.J. (2007) The relationship between abortion and depression: New evidence from the Fragile Families and Child Wellbeing Study. *Medical Science Monitor* 13 (10): 430-436.
- Reich, J.A. & Brindis, C.D. (2006). Conceiving risk and responsibility: A qualitative examination of men's experiences of unintended pregnancy and abortion. *International Journal of Men's Health*, 5 (2), 133-152.
- Reips, U. (2000). The Web experiment method: Advantages, disadvantages, and solutions. In M.H. Birnbaum (ed.), *Psychological experiments on the Internet* (pp. 89-117). San Diego, CA: Academic Press.



- Reisser, T. & Reisser, P. (1989). *Help for the post-abortion woman*. Grand Rapids, MI: Zondervan.
- Remennick, L. (1990). Induced abortion as cancer risk factor: A review of epidemiological evidence. *Journal of Epidemiology and Community Health*, 44, 259-264.
- Remennick, L.I., & Segal, R. (2001). Sociocultural context and women's experiences of abortion: Israeli women and Russian immigrants compared. *Culture, Health, And Sexuality*, 3, 49-66.
- Richman, W., Kiesler, S., Weisb, S, & Drasgow, F. (1999). A meta-analytic study of social desirability distortion in computer-administered questionnaires, traditional questionnaires, and interviews. *Journal of Applied Psychology*, 84, 754-775.
- Ring-Cassidy, E. & Gentles, I. (2002). *Women's Health after Abortion; The Medical and Psychological Evidence*. Canada.: The deVeber Institute for Bioethics and Social Research.
- Robinson, G., Stotland, N., Russo, N., Lang, J., & Occhiogrosso, M. (2009). Is there an abortion trauma syndrome?. Critiquing the evidence. *Harvard Review of Psychiatry*, 17, 4, 268-289.
- Robson, F.M. (2002). "Yes! – A chance to tell my side of the story': a case study of a male partner of a woman undergoing termination of pregnancy for fetal abnormality. *Journal of Health Psychology*, 7 (2), 183-193.
- Rogers, J., Stoms, G. & Phifer, J. (1989). Psychological impact of abortion. *Health Care for Women International*, 10, 347-376.
- Rothstein, A. (1977a) Abortion: A dyadic perspective. *The American Journal of Orthopsychiatry*, 47 (1) 111-118.
- Rothstein, A. (1977b). Men's reactions to their partners' elective abortions. *American Journal of Obstetrics and Gynecology*, 128 (8), 831-837.
- Rousset, C., Brulfert, N., Séjourné, N., Goutaudier, N. & Chabrol, H. (2011). Posttraumatic Stress Disorder and psychological distress following medical and surgical abortion. *Journal of Reproductive and Infant Psychology*, 29 (5), 506-517.
- Royal Australian and New Zealand College of Obstetricians and Gynecologists. (2005). *Termination of pregnancy: A Guide for Health Professionals*.

- Royal College of Psychiatrists. (2008). Position Statement on Mental Health of Women in relation to Abortion. Retrieved from [www.rcpsych.org.uk](http://www.rcpsych.org.uk).
- Royal College of Obstetricians and Gynecologists. (2004). The care of women requesting induced abortion: Evidence-based clinical guideline number 7. Author. Retrieved from [www.nationalguidelineclearinghouse.org](http://www.nationalguidelineclearinghouse.org).
- Rue, V. (1985). Abortion in relationship context. *International Review of Natural Family Planning*, 9, 95-121.
- Rue, V. & Speckhard, A. (1991). Informed consent & abortion: Issues in medicine & counseling. *Medicine & Mind*, 6:1, 75-95.
- Rue, V., Coleman, P., Rue, J., & Reardon, D. (2004). Induced abortion and traumatic stress: A preliminary comparison of American and Russian women. *Medical Science Monitor*, 10, 10, SR5-16.
- Rue, V., Speckhard, A., Rogers, J. & Franz, W. (1987). *The Psychosocial Aftermath of Abortion: A White Paper*. Testimony presented to Surgeon General C. Everett Koop, Office of the U.S. Surgeon General. U.S. Dept. of Health and Human Services, Public Health Services. Washington, D.C.
- Rue, V. & Speckhard, A. (1991). Post-abortion trauma: Incidence and diagnostic considerations. *Medicine and Mind*, 6, 57-74.
- Rue, V. & Speckhard, A. (1996). *Getting beyond traumatic pregnancy loss: Research findings and clinical application*. Paper presented at the 2nd Annual Conference, Foundations of 21st Century Traumatology, Georgetown University Medical Center, Alexandria. VA.
- Russo, N. & Zierk, K. (1992). Abortion, childbearing, and women's well-being. *Professional Psychology: Research & Practice*, 23, 269-280.
- Russo, N., & Denious, J.E. (2001). Violence in the lives of women having abortions: Implications for policy and practice. *Professional Psychology Research and Practice*, 32, 142-150.
- Ryding, E.L, Persson, A, Onell, C., & Kvist, L. (2003). An evaluation of midwives counseling of pregnant women in fear of childbirth. *Acta Obstetricia et Gynenecologica Scandinavica*, 82, 10-17.
- Salladay, S. & Cavender, K. (1992). Post-abortion syndrome: Dealing with guilt and grief. *Journal of Christian Nursing*, 9 (2), 18-21.
- Salvesen, K.A., Oyen, L., Schmidt, N., Malt, U.F., & Eik-Nes, S.H.

- (1997). Comparison of long-term psychological responses of women after pregnancy termination due to fetal anomalies and after perinatal loss. *Ultrasound Obstetrics Gynecology*, 9, 80-85.
- Sands, W.L. (1973). Psychiatric history and mental illness. In *Diagnosing Mental Illness Evaluation in Psychiatry and Psychology*, (ed.). Freedman & Kaplan, New York; Athenum.
- Santelli, J.S., Speizer, I.S., Avery, A. & Kendall, C. (2006). An exploration of pregnancy intentions among women choosing to terminate pregnancy or initiate prenatal care in New Orleans, Louisiana. *American Journal of Public Health*, 96 (11), 2009-2015.
- Sareen, J., Houlihan, T., Cox, B.J. & Asmundson, G.J. (2005). Anxiety disorders associated with suicidal ideation and suicide attempts in the National Comorbidity Survey. *Journal of Nervous and Mental Disease*, 193 (7), 450-454.
- Schelotto, G., & Arcuri, C. (1986). Supposing it hurt me too? Abortion: The anguish experienced by men. *Planned Parenthood in Europe Regional Information Bulletin*, 15, 25-34.
- Schilling EA, Aseltine RH, Gore S. (2007). Adverse childhood experiences and mental health in young adults: a longitudinal survey. *BMC Public Health* 7:30.
- Schleiss, L., Mygind, K.A., Borre, R.V., & Peterson, B.H. (1997). Psychological consequences of induced abortion. *Ugeskrift Laeger*, 159, 3603-3606.
- Schmidt, W. (1997). World-Wide Web survey research: Benefits, potential problems, and solutions. *Behavior Research Methods, Instruments, & Computers*, 29 (2), 274-279.
- Schmiege S & Russo, N. (2005). Depression and unwanted first pregnancy: A longitudinal cohort study. *British Medical Journal*; 331:1303
- Schnurr, P.P., Hayes, A.F., Lunney, C.A., McFall, M. & Uddo, M. (2006). Longitudinal analysis of the relationship between symptoms and quality of life in veterans treated for posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology*, 74 (4), 707-713.
- Schorr, P., Friedman, M., Foy, D. , Shea, M., Hsieh, F., Lavori, P., Glynn, S., Wattenbberg, M., and Bernardy, N. (2003). Randomized trial of trauma-focused group therapy for Posttraumatic Stress Disorder. *Archives of General Psychiatry*, 60, 481-488.

- Scottish Intercollegiate Guideline Network on Perinatal Health (SIGN)*. (2002). Postnatal depression and puerperal psychosis. A national clinical guideline. Edinburgh (Scotland) SIGN Publication no. 60 2002; June 28.
- Sedgh, G., Singh, S., Shah, I., Ahman, E., Henshaw, S.K. & Bankole, A. (2012). Induced abortion: incidence and trends worldwide from 1995 to 2008. *The Lancet*, Early Online Publication, 19 January 2012.
- Selby, T. (1990). *The Mourning After: Help for Post-Abortion Syndrome*. Grand Rapids, MI: Baker.
- Shalev, A.Y. (2001). What is posttraumatic stress disorder? *Journal of Clinical Psychiatry*, 62 (Suppl. 17), 4-10.
- Shapiro, C.H. (1993). *When part of the self is lost: Helping clients heal after sexual and reproductive losses*. San Francisco: Jossey-Bass Publishers.
- Shostak, A. (1979). Abortion as fatherhood lost: Problems and reforms. *The Family Coordinator*, 28 (4), 569-574.
- Shostak, A. (1983). Men and abortion: Three neglected ethical aspects. *Humanity and Society*, 7 (1), 66-85.
- Shostak, A. & McLouth, G. (1984). *Men and abortion: Lessons, losses, and love*. New York: Praeger.
- Shostak, A. (2007). Men, me and abortion: On doing the right thing. *Men and Masculinities*, 10, 360-366.
- Shuping, M. & McDaniel, D. (2004). *The Four Steps to Healing*. Tabor Garden Press.
- Sichel, D. (2003). Neurohormonal aspects of postpartum depression and psychosis. In Spinelli, M., ed. *Infanticide: Psychosocial and legal perspectives on mother who kill* (pp. 60-76). Washington, D.C.: American Psychiatric Publishing.
- Singer, J. (2004). Options counseling: Techniques for caring for women with unintended pregnancies. *Journal of Midwifery & Women's Health*, 49(3), 235-242.
- Sivuha, S. (2002). Predictors of Posttraumatic Stress Disorder Following Abortion in a Former Soviet Union Country. *Journal of Prenatal & Perinatal Psychology & Health*, 17, 41-61.
- Skari, H., Skreden, M., Malt, U.F., Dulholt, M., Osttensen, A.B., Egeland, T., and Emblem, R. (2002). Comparative levels of

- psychological distress, stress symptoms, depression, and anxiety after childbirth- a prospective population-based study of mothers and fathers. *British Journal of Obstetrics & Gynaecology*, 109, 1154-1163.
- Skitka, L.J. & Sargis, E.G. (2006). The internet as psychological laboratory. *Annual Review of Psychology*, 57, 529-555.
- Slade, P., Heke, S., Fletcher, J., & Stewart, P. (1998). A comparison of medical and surgical methods of termination of pregnancy: Choice, psychological consequences, and satisfaction with care. *British Journal of Obstetrics and Gynecology*, 105, 1288-1295.
- Smith, M.A. & Leigh, B. (1997). Virtual subjects: Using the internet as an alternative source of subjects and research environment. *Behavior Research Methods, Instruments & Computers*, 29 (4), 496-505.
- Soderberg, H., Andersson, C., Janzon, L., & Slosberg, N-O. (1997). Continued pregnancy among abortion applicants. A study of women having a change of mind. *Acta Obstetrica Gynecologica Scandinavica*, 76, 942-947.
- Soderberg, H., Janzon, L. & Sjoberg, N. (1998). Emotional distress following induced abortion. *European Journal of Obstetrics, Gynecology & Reproductive Biology*, 79 173-178.
- Speckhard, A. & Mufel, N. (2003) Universal responses to abortion? Attachment, trauma, and grief in women following abortion. *Journal of Prenatal & Perinatal Psychology & Health*, 3-37.
- Speckhard, A. and Rue, V. (1993). Complicated Mourning: Dynamics of impacted post abortion grief. *Pre- and Peri-natal Psychology Journal*, 8 1, 5-15.
- Speckhard, A.C. & Rue, V.M. (1992). Post abortion syndrome: An emerging public health concern. *Journal of Social Issues*, 48, 3, 95-119.
- Speckhard, A.C. & Rue, V.M. (2012). Abortion as Trauma. In Figley, C. (ed.). *The Encyclopedia of Trauma*. Thousand Oaks, CA: Sage.
- Speckhard, A. (1987). *Psychosocial Stress Following Abortion*. Kansas City, MO: Sheed and Ward.
- Speilberger, Gorsuch, Lushene, Vagg, and Jacobs. (1983). *Manual for the State-Trait Anxiety Inventory*. Consultant Psychological Press, Palo Alto. CA.

- Spinelli, M. (1999). Prevention of postpartum mood disorders. In ed. Miller, L. *Postpartum Mood Disorders*, (pp. 217-234). Washington, D.C.: American Psychiatric Press.
- Stanford-Rue, S. (1986). Will I cry tomorrow? Healing post-abortion trauma. Fleming, NJ: Revell.
- Statistics Canada. *Therapeutic Abortions (2006)*. Ottawa: Statistics Canada, Health Statistics Division.
- Stein, E. & Eisen, B. (1996). Helping trauma survivors cope: Effects of immediate brief co-therapy and crisis intervention. *Crisis intervention and time limited treatment*, 3, 2, 113-127.
- Steinberg, J.R., Becker, D., & Henderson, J.T. (2011). Does the outcome of a first pregnancy predict depression, suicidal ideation, or lower self-esteem? Data from the National Comorbidity Survey. *American Journal of Orthopsychiatry*, 81, 193-201.
- Steinberg, J.R., & Finer, L.B. (2011). Examining the association of abortion history and current mental health: a reanalysis of the National Comorbidity Study using a common-risk-factors model. *Social Science & Medicine*, 72, 72-82.
- Steinberg, J.R. & Jordan, B. (2009). Science prevails: Abortion and mental health. *Contraception*, 79, 81-83.
- Steinberg, J.R. and Russo, N.F. (2008). Abortion and anxiety: What's the relationship? *Social Science and Medicine*, 67, 238-252.
- Steinberg, T.N. (1989). Abortion counseling: To benefit maternal health. *American Journal of Law & Medicine*, 15, 483-517.
- Stevens, J. (1996). *Applied multivariate statistic for the social sciences, Third Edition*. New Jersey: Lawrence Erlbaum Associates.
- Stites, M.C. (1982). Decision making model of pregnancy counseling. *Journal of American College Health*, 30, 244-247.
- Stotland, N. (2011). Induced abortion and adolescent mental health. *Current Opinion in Obstetrics and Gynecology*, 23:000-000. DOI:10.1097/GCO.0b013e32834a93ac
- Stotland, N. (2008). Abortion and psychiatric practice. *Journal of Psychiatric Practice*, 9 (2), 139-149.
- Stotland, N. (2001). Psychiatric aspects of induced abortion. *Archives of Women's Mental Health*, 4, 2731.

- Stotland, M. (1993). Realistic reflections on an emotional subject. *Journal of Clinical Ethics*, 4, 177-178.
- Stotland, M. (1992). The myth of the abortion trauma syndrome. *Journal of the American Medical Association*, 268, 2078.
- Stotland, N. (2004). Testimony representing the American Psychiatric Association to United States Senate Committee on Commerce, Science, Technology, and Space Hearing on – *Impact of Abortion on Women*”, United States Senate, Washington, D.C. (March 3, 2004).
- Stotland, N. (1998). *Abortion Facts and Feelings*. Washington, D.C. American Psychiatric Press.
- Stroupe, D.F. , Berlin, J.A., Morton, S.C. Olkin, L. Williamson, G.D. Rennie, D. et al (2000). Meta-Analysis of Observational Studies in Epidemiology (MOOSE). *Journal of the American Medical Association*, 283, 15, 2008-2012.
- Suliman et al. (2007) Comparison of pain, cortisol levels, and psychological distress in women undergoing surgical termination of pregnancy under local anaesthesia versus intravenous sedation. *BMC Psychiatry*, 7 (24), pp. 1-9.
- Sundin, E.C. and Horowitz, M.J. (2003). Horowitz’s impact of event scale evaluation of 20 years of use. *Psychosomatic Medicine* 65, 870-876.
- Suri, R., Altshuler, L., Hendrick, V., Rasgon, N., Lee, E., Mintz, J. (2004). *Archives of Women’s Mental Health*, 7, 193-200.
- Tabachnick, B.G. and Fidell, L.S. (1996). *Using Multivariate Statistics*. (Third Ed). California: Harper Collins College Publishers.
- Taft, A.J. and Watson, L.F. (2008). Depression and termination of pregnancy in a national cohort of young Australian women: The confounding effect of women experiencing violence, *BMC Public Health*, 8:75.
- Thevathasan, P. (2002). Post abortion traumatic grief. *Catholic Medical Quarterly*, November.
- Thorp, J. Hartman, K.E. & Shadigian, E. (2003). Long term physical and psychological health consequences of induced abortion: Review of the evidence. *Obstetrical and Gynecological Survey*, 58, 1, 67-79.



- Toedter, L.J., Lasker, J.N., and Janssen, N.J. (2001). International comparison of studies using the Perinatal Grief Scale: A decade of research on pregnancy loss. *Death Studies*, 25, 205-228.
- Toledano, L. (2004). Assessing traumatic reactions of abortion with the Emotional Stroop. *Dissertation Abstracts International*, 64: 4639.
- Tornbom, M. and Moller, A. (1999). Repeat abortion: A qualitative study. *Journal of Psychosomatic Obstetrics and Gynecology*, 20, 21-30.
- Torre-Bueno, A. (1996). *Peace after abortion*. San Diego, CA: Pimpermell Press.
- Turell, S., Armsworth, M., & Gaa, J. (1990). Emotional Response to Abortion: A Critical Review of the Literature. *Women & Therapy* 9, 49-68.
- Tutty, L.M., Bidgood, B.A., and Rothery, M.A. (1993). Support groups for battered women: Research on their efficacy. *Journal of Family Violence*, 8, 325-343.
- United Nations (2007). *World Abortion Policies*.
- United Nations. (2002). *Abortion policies: A global review: Vol. III Oman to Zimbabwe*, Department of Economic and Social Affairs Population Division. United Nations: New York.
- Upadhyay, U., Cockrill, K. & Freedman, L. (2010). Informing abortion counseling. *Patient Education and Counseling*, 81(3): 415-421.
- Urquhart D.R., & Templeton, A.A. (1991). Psychiatric morbidity and acceptability following medical and surgical methods of induced abortion. *British Journal of Obstetrics and Gynecology*, 98, 396-99.
- Vaughan, H. (1991). *Canonical Variates of Post-Abortion Syndrome*. Portsmouth, NH: Institute for Pregnancy Loss.
- Van der Kolk, B.A., Pelcovitz, D., Roth, S., Mandel, F.S., McFarlane, A., & Herman, J. (1996). Dissociation, somatization and affect dysregulation: The complexity of adaptation to trauma. *American Journal of Psychiatry*, 153, 7, July Festschrift Supplement 83-93.
- Virgo, K.S., Carr, T.S., Hile, A. Virgo, J.M., Sullivan, G.M., and Kaikati, J.G. (1999). *Women's Health Issues*, 9, 3, 143-154.
- Vought, J. (1991). *Post abortion trauma: Nine steps to recovery*. Grand Rapids, MI: Zondervan.
- Wahlberg, V. (2007). Women's memories after abortion, summarised from therapy work, pastoral counseling and/or confessions. In



- V. Wahlberg (ed.), *Memories after abortion* (pp. 70-79). Radcliffe: Oxford.
- Walsh, J.P., Kiesler, S., Sproull, L.S. & Hesse, B.W. (1992). Self-selected and randomly selected respondents in a computer network survey. *Public Opinion Quarterly*, 56, 241-244.
- Warren, J.T., Harvey, S.M., & Henderson, J. (2010). Do depression and low self-esteem follow abortion among adolescents? Evidence from a national study. *Perspectives on Sexual and Reproductive Health*, 42, 230-235.
- Warshaw, M.G., Fierman, E., Pratt, L., Hunt, M., Yonkers, K.A., Massion, A.O. & Keller, M.B. (1993). Quality of life and dissociation in anxiety disorder patients with histories of trauma or PTSD. *American Journal of Psychiatry*, 150, 1512-1516.
- Weathers, F.W., Litz, B.T., Herman, D.S., Huska, J.A., & Keane, T.M. (1993, October). The PTSD Checklist: Reliability, validity, and diagnostic utility. Paper presented at the annual meeting of the International Society for Traumatic Stress Studies, San Antonio.
- Wells, N. (1991). Pain and distress during abortion. *Health Care for Women International*, 12, 293-302.
- Wells, N. (1992). Reducing distress during abortion: A test of sensory information. *Journal of Advanced Nursing*, 17, 1050-1056.
- Wetstein, M. (1996). *Abortion rates in the United States*. Albany, N.Y.: State University of New York Press.
- Wheeler, S.R. and Austin, J.K. (2001) The impact of early pregnancy loss on adolescents. *Maternal Child Nursing*, 26, 3, 154-159.
- White-van-Mourik, M.C., Connor, J.M., & Fergusson-Smith, M.A. (1992). The psychological sequelae of a second-trimester termination of pregnancy for fetal abnormality. *Prenatal Diagnosis*, 12 (3), 189-204.
- Whittemore, R. and Gray, M. (2002). The systematic development of nursing interventions (2002). *Journal of Nursing Scholarship* 34, 2, 115-120.
- Williams, G.B. (2000). Grief after elective abortion. *Association of Women's Health, Obstetric and Neonatal Nurses Lifelines*, 4, 2, 37-40.
- Williams, G.B. (2001). Short-term grief after an elective abortion. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 30 (2), 174-183.

- Wilmoth, G.H., de Alteriis, M., & Bussell, D. (1992). Prevalence of psychological risks following legal abortion in the U.S.: Limits of the evidence. *Journal of Social Issues*, 48, 37-66.
- Wilson, R. (2003). The Internet makes gathering data quick, easy, and cheap. *Nursing Standard*, 18 (6), p. 20.
- Winkler, K. (1992). *When the Crying Stops: Abortion, the Pain and the Healing*. Northwestern: Milwaukee, WI.
- Wolkomir, M. & Powers, J. (2007). Helping women and protecting the self: The challenge of emotional labor in an abortion clinic. *Qualitative Sociology*, 30: 153-169.
- Women should be offered post-abortion psychological care. (Editorial 2008). *Lancet*. 372; 602.
- World Health Organization. (2009). National Action Plan for Access and Quality Post Abortion Care.
- World Health Organization. (2003). Safe abortion: Technical and policy guidelines for health systems. World Health Organization, Geneva.
- World Health Organization (2003). *Post abortion Family Planning: A program guide for managers*. Department Reproductive Health and Research; World Health Organization: Geneva.
- World Health Organization (1993). *International Classification of Mental and Behavioral Disorders*, Tenth Edition. Diagnostic Criteria for Research. Geneva: World Health Organization.
- World Health Organization (1967). International Classification of Diseases Manual of the International and Statistical Classification of Diseases, Injuries, and Causes of Death Eighth Edition, Geneva: World Health Organization.
- Yamaguchi, D., & Kandel, D. (1987). Drug use and other determinants of premarital pregnancy and its outcome: a dynamic analysis of competing life events. *Journal of Marriage and the Family*, 49, 257-270.
- Yeaworth, R. (2001). Use of the Internet in survey research. *Journal of Professional Nursing*, 17 (4), 187-193.
- Young, E.A., Tolman, R., Witkowski, K., & Kaplan, G. (2004). Salivary cortisol levels and posttraumatic stress disorder in a low-income community sample of women. *Biological Psychiatry*, 5, 6, 621-626.

- Young, E.A., Aggen, S.H., Prescott, C.A., and Kendler, K.S. (2000). Similarity in saliva cortisol measures in monozygotic twins and the influence of past major depression. *Biological Psychiatry* 48, 70-74.
- Young, E.A., Carlson, N.E., and Brown, M.B. (2001). 24-hour ACTH and cortisol pulsatility in depressed women. *Neuropsychopharmacology*, 25, 267-276.
- Zakus, G. & Wilday, S. (1987). Adolescent abortion option. *Social Work in Health Care*, 12, 77-91.
- Zavodny, M. (2001). The effect of partners' characteristics on teenage pregnancy and its resolution. *Family Planning Perspectives*, 33, 192-199 and 205.
- Zolese G. & Blacker CV. (1992). The psychological complications of therapeutic abortion. *The British Journal of Psychiatry*, 160, 742-749.



PRISCILLA K. COLEMAN, PH.D.

Professor of Human Development and Family Studies,  
Bowling Green State University, Bowling Green,  
Ohio, USA

Director, World Expert Consortium for  
Abortion Research and Education

WOMEN AT RISK FOR POST-ABORTION  
MENTAL HEALTH PROBLEMS AND  
ABORTION ASSOCIATED  
RELATIONSHIP CHALLENGES



The formal study of the psychology of induced abortion has garnered considerable momentum over the last several decades and the scientific rigor of the published studies has increased dramatically (Bradshaw & Slade, 2003; Coleman, 2011; Coleman, Reardon, Strahan, & Cogle, 2005; Thorp, Hartmann, & Shadigan, 2003). Potential negative psychological and relational consequences of induced abortion and risk factors for such negative consequences have been the two primary focal areas in the literature. Paralleling the expansion of research, both in terms of the quantity and quality of studies published, has been growing awareness in the medical community of the need for evidence-based practice. In order to adequately inform clinicians about well-established abortion-related mental health risks, as well as the factors that increase women's susceptibility to post-abortion mental health problems, clear and objective synopses of the best available evidence are needed. The objectives of this report are to describe research pertaining to risk factors associated with adverse post-abortion psychological consequences and to summarize the literature pertaining to relational challenges following abortion.

## **1. Review of Academic Literature on Risk Factors for Post-Abortion Mental Health Problems**

Scientific studies wherein demographic, psychological, and/or situational factors that elevate a woman's chances of being adversely impacted by an abortion experience were systematically identified and examined. This exhaustive search of peer-reviewed empirical studies of risk factors associated with post-abortion psychological problems included only those published in English between 1972 and 2011. The MEDLINE,

PubMed and PsycINFO data bases were employed to identify relevant peer-reviewed articles by using combinations of the following four sets of descriptors:

1. Therapeutic abortion, elective abortion, and induced abortion
2. At-risk, risk-factor, predictor, susceptibility, vulnerability
3. Pre-abortion, post-abortion
4. Psychiatric morbidity, mental health, trauma, psychological adjustment, psychological complications, psychological distress, psychological disorders, psychological harm, psychological problems, emotional adjustment, emotional complications, emotional distress, emotional disorders, emotional harm, emotional problems, suicide, mood disorders, depression, anxiety, Post-traumatic Stress Disorder, substance abuse, substance use.

From the many searches conducted, over 400 abstracts were read to assess relevance; 258 articles were ordered and examined closely to see if criteria were met; and a final list of 119 qualifying articles was developed and they are summarized in Table 1. A total of 146 individual risk factors were identified across the 119 peer-reviewed studies. Among the many risk factors examined, a number of thoroughly researched variables emerged that were repeatedly identified across numerous peer-reviewed studies to characterize women who are more prone to experiencing psychological problems after abortion. The list below includes 12 risk factors (or risk factor clusters) from Table 1 identified in a minimum of 10 studies. Given the strength of the science affirming these variables as statistically valid risk factors for psychological distress, clinicians should routinely screen for them.

1. Timing during adolescence or younger age (18 studies confirm; 2 studies do not).
2. Religious, frequent church attendance, personal values conflict with abortion (18 studies confirm; 1 study does not).

3. Decision ambivalence or difficulty, doubt once decision was made, or high degree of decisional distress (29 studies confirm; 3 studies do not).

4. Desire for the pregnancy, psychological investment in the pregnancy, belief in the humanity of the fetus and/or attachment to fetus (21 studies confirm; 1 does not).

5. Negative feelings and attitudes related to the abortion (16 confirm; 1 does not).

6. Pressure or coercion to abort (10 studies confirm; 1 does not).

7. Conflicted, unsupportive relationship with father of child (24 confirm; 6 do not).

8. Conflicted, unsupportive relationships with others (28 confirm; 7 do not).

9. Character traits indicative of emotional immaturity, emotional instability, or difficulties coping, including low self-esteem, low self-efficacy, problems describing feelings, being withdrawn, avoidant coping, blaming oneself for difficulties etc. (42 studies confirm; 1 study does not).

10. Pre-abortion mental health/psychiatric problems (35 studies confirm; 3 studies do not).

11. Indicators of poor quality abortion care (feeling misinformed/inadequate counseling, negative perceptions of staff, etc.) (10 studies confirm).

12. Repeat or second trimester abortion (19 studies confirm; 3 studies do not). Many of the risk factors listed above may occur simultaneously and are complexly interconnected. For example, a woman who feels attached to her fetus and has some desire to continue the pregnancy may also be pressured from her partner to terminate if the relationship is unstable, leading to feelings of ambivalence and stress surrounding the decision to abort. If she also suffers from low self-esteem and has trouble articulating her feelings, she may be particularly prone to yielding to pressure from her partner and she will be at a heightened risk for mental health problems after abortion. Substantive counseling is needed to identify the



number of risk factors present in each individual case, and to help individual women understand that they may be at an elevated risk for mental health problems after an abortion.

Research indicates that the percentage of women falling into “high-risk” groups for problematic post-abortion adjustment is not small. For example, Rue and colleagues (2004) reported that 64% of American women sampled felt pressured to abort. The extent to which a decision is voluntary is complex and undoubtedly falls on a continuum, as these decisions are embedded in the social context, and there are often a mix of pressures, some subtle and others more overt. Professionals should seek to sensitively identify any pressures women are under, the intensity of such pressures, and their abilities to assert autonomy in order to make a comfortable decision under the circumstances. Moreover, feeling pressured or coerced to abort may serve as a flag for other risk factors (relationship problems, ambivalence, pregnancy wantedness, etc.), and professionals screening prospective abortion patients for evidence of coercion from a partner, parent, or other significant individual should therefore have an opportunity to evaluate for the presence of other well-established risk factors.

Husfeldt and colleagues (1995) reported that 44% of women surveyed had doubts about their decision to abort upon confirmation of pregnancy, with 30% continuing to express doubts when the abortion date arrived. If a woman doubts her decision to abortion and she believes it is morally wrong, guilt feelings, which are frequently implicated in depression, are likely to arise. Guilt associated with abortion has been frequently reported (Broen *et al.*, 2004), even in the pre-abortion counseling literature written by providers (Baker *et al.*, 1999). Rue and colleagues’ (2004) study revealed that 78% of U.S. women felt guilt in association with a past abortion. Furthermore, close to 50% of the Russian women in this study reported guilt feelings despite residing in a culture that is very accepting of abortion.

Kero and colleagues's (2001) work revealed that 46% of women who aborted indicated that their thoughts regarding termination evoked a conflict of conscience. The source of such conflict may relate to women's understanding of the humanity of the fetus. In Conklin and O'Connor's (1995) study of 800 women, those who believed that fetuses are human experienced significantly more post-abortion negative affect and decision dissatisfaction than women who did not. Awareness of the humanity of the fetus is common among women who are seriously contemplating an abortion. For example, using semi-structured interviews Smetana and Adler (1979) found that 25% of women confronting an induced abortion decision believed that the fetus was a human being and viewed induced abortion as terminating the fetus' life. In a study conducted by Rue and colleagues (2004), 50.7% of American women, and 50.5% of Russian women, who had an induced abortion felt abortion was morally wrong.

The decision to abort is obviously often conflict-ridden with many women seriously questioning their decision and suffering from their choice to abort. Coleman and Nelson (1998) noted that 38.7% of female college students regretted having had an aborted and the results of a study by Soderberg and colleagues (1998) indicated that 76.1% of women who had a past abortion would never consider repeating the experience.

In a study employing only five screening criteria (psychosocial instability, an unstable relationship with the male partner, few friends, a poor work history, and failure to take contraceptive precautions), Belsey and colleagues (1977) found that 68% of the 326 abortion patients examined were at high risk for negative psychological reactions necessitating counseling. When assessed at 3 months post-abortion, 72% of those identified to be at high risk in the Belsey study actually had developed negative post-abortion reactions (guilt; regret; disturbance of marital, sexual, or interpersonal relationships;

or difficulty in coping with day-to-day activities). The researchers concluded that a simple questionnaire of known risk factors could be used to identify women who are at higher risk of negative emotional reactions in order to better serve women considering an abortion.

The literature on risk-factors for adverse post-abortion psychological consequences is well-developed and there is undisputed opinion among researchers and even among many abortion providers that coercion, decision difficulty/ambivalence, desire to maintain the pregnancy, and belief in the humanity of the fetus in addition to other factors place women at increased risk for mental health problems, including depression, anxiety, suicide ideation, suicide, and substance abuse. Hern (1990), a well-known abortion provider, emphasized the central role of pre-abortion counseling in evaluating women's mental status, circumstances, and abortion readiness while stressing the importance of developing a supportive relationship between the counselor and patient to prevent complications. Hern further emphasized the necessity of the counselor being trained to assess whether the abortion patient is a victim of subtle coercion.

Abortion counselor and consultant, Baker (1995) similarly stressed pre-abortion screening for risk factors 17 years ago in her book titled *Abortion & Options Counseling*. She specifically stated: *"In the cases where women do react negatively after an abortion, there appear to be predisposing factors linked to those reactions. There is enough valid research from which we can attempt to assess a client's potential for negative reactions after an abortion. Counselors can use this information by 1) screening for these factors in pre-abortion counseling and 2) following a plan of action that may potentiate the client's successful coping."* (p. 70).

In a chapter written for the *Clinician's Guide to Medical and Surgical Abortion*, Baker and colleagues (1999) provided a table of pre-disposing factors for negative reactions and

the authors recommended identifying these factors prior to abortion in order to allow the provider to address the specific needs of the patients. Among the factors included were "belief that the fetus is the same as a 4-year-old human and that abortion is murder," low self-esteem, ambivalence about the decision, intense guilt and shame about the abortion, perceived coercion to have an abortion, and commitment to the pregnancy.

The American Psychological Association acknowledged a number of risk factors for psychological distress in their Task Force Report released in August 2008: *"Research derived from a stress-and-coping perspective has identified several factors that are associated with more negative psychological reactions among women who have had an abortion. These include terminating a pregnancy that is wanted or meaningful; perceived pressure from others to terminate a pregnancy; perceived opposition to the abortion from partners, family, and/or friends; and a lack of perceived social support from others."* (p. 11) and *"Feelings of commitment to the pregnancy, ambivalence about the abortion decision, and low perceived ability to cope with the abortion prior to its occurrence also predicted more negative post-abortion responses."* (p. 92).

In summary, a 40-year history of extensive peer-reviewed research has definitively shown that when specific physical, demographic, psychological, and situational factors are present, women are at a significantly increased risk of experiencing post-abortion mental health problems. Many of the risk factors described herein have been known to the research community for decades and have been recognized and affirmed by professional organizations.

However, despite the availability of strong research documentation on risk factors and awareness by professionals, abortion providers rarely routinely screen for risk factors and counsel women at risk.

## 2. Review of Academic Literature on the Relational Consequences of Abortion

Research with nationally representative samples and a variety of controls for personal and situational factors that may differ between women choosing to abort and deliver indicate abortion significantly increases risk for depression (Cogle, Reardon, & Coleman, 2003; Fergusson, Horwood, & Ridder, 2006; Pedersen, 2008; Rees & Sabia, 2007), anxiety (Cogle, Reardon, & Coleman, 2005; Fergusson, Horwood, & Ridder, 2006), substance abuse (Coleman, 2006; Pedersen, 2007; Reardon, Coleman, & Cogle, 2004), and suicide ideation and behavior (Fergusson, Horwood, & Ridder, 2006; Gissler, Hemminki, & Lonnqvist, 1996; Gissler *et al.*, 2005), among other outcomes. There is consensus among most social and medical science scholars that a minimum of 20% of women who abort suffer from serious, prolonged negative psychological consequences (Bradshaw & Slade, 2003; Major & Cozzarelli, 1992; Zolese, & Blacker, 1992). When women experience psychological problems associated with abortion, the effects are likely to impact others as well, including intimate partners and children, particularly when painful abortion-related emotions are not adequately resolved.

Many couples choose abortion believing that the decision will preserve the quality of their relationship if one or both partners feel psychologically or materially unprepared to have a child (Allanson & Astbury, 1995; Bianchi-Demicelli *et al.*, 2002). Although the research on this topic is somewhat limited, the available data reviewed below suggests the contrary with abortion ushering in significant relationship challenges. Partner communication problems (Freeman, 1980) and an increased risk for separation or divorce following an abortion have been reported in several studies (Barnett, Freudenberg, & Wille, 1992; Bracken & Kasi, 1975; Freeman, 1980; Lauzon, Roger-Achim, Achim, & Boyer, 2000; Miller, 1992; Rue *et al.*, 2004). In one study by Lauzon and colleagues

(2000), 12% of the women and 18% of the men indicated that an abortion performed up to 3 weeks earlier had adversely affected their relationship. Rue and colleagues (2004) reported that 6.8% of Russian women and 26.7% of American women reported relationship problems due to an abortion; whereas relationship benefits were reported by very few Russian (2.2%) and American women (9%).

Research has further demonstrated that women with an abortion history are at an increased risk for sexual dysfunction (Bianchi-Demicelli *et al.*, 2002; Boesen, Rorbye, Norgaard, & Nilas, 2004; Fok, Siu, & Lau, 2006; Lauzon, Roger-Achim, Achim, & Boyer, 2000; Miller, 1992; Rue *et al.*, 2004; Tornboen *et al.*, 1994). In a recent review, Bradshaw and Slade (2003) concluded that 10-20% of women reported abortion-related sexual problems in the early weeks and months after an abortion, while 5-20% of women reported sexual difficulties a year later. Male responses to a partner's abortion have not been extensively studied; however, post-abortion sexual problems in the first three weeks post-abortion were indicated by 18% of men, who were significantly affected by a partner's abortion (Lauzon *et al.*, 2003).

Studies designed to examine mechanisms linking abortion to declines in the quality of intimate relationships are generally missing from the literature. Variables that researchers might logically explore in future studies include any of the following: 1) perceptions of a partner as insensitive or insufficiently supportive; 2) negative abortion related emotions on the part of one or both individuals; 3) altered self-perceptions which may result in feelings of estrangement from one's partner; 4) anger due to relationship-based information (e.g., commitment, long-term plans, etc.) derived through the abortion decision-making process; and/or 5) history of unresolved grief and trauma in one or both partners.

Associations between maternal history of abortion and problematic parenting, including lower emotional support

and heightened risk for both child abuse and neglect have been reported in peer-reviewed studies (Benedict, White, & Cornely, 1985; Coleman, Reardon, & Cougle, 2002; Coleman, Rue, Coyle, & Maxey, 2007; Coleman, Maxey, Coyle, & Rue, 2005; Ney, Fung, & Wickett, 1993). For example, compared to women with no history of induced abortion, those with one prior abortion were found to have a 144% increased risk of engaging in child maltreatment (Coleman, Rue, Coyle, & Maxey, 2007). Complicated grieving (Prigerson *et al.*, 1999; Barr, 2007), potential for engagement in self-destructive behaviors such as substance abuse and enhanced mental health risks referenced above, along with sleep disturbances (Reardon & Coleman, 2006; Rue *et al.*, 2004), may contribute to problematic parenting.

Several additional conditions emerging after abortion may foster a feeling of detachment, reduce a woman's feelings of satisfaction in parenting, and/or render a woman less able to engage spontaneously in parenting (Coleman, 2009). Among the possible specific mechanisms that may help explain associations between abortion and parenting difficulties, meriting further systematic exploration, are the following:

1. Shame, guilt, or violation of personal moral codes, may make women feel undeserving of a child or they may have a sense that their child does not really belong to them.
2. Women may "punish" themselves by not letting go and completely enjoying their children.
3. If women feel as though their abortions constituted a poor choice, they may lack confidence or a sense of personal efficacy in decision-making.
4. Women may sense being judged by others and feel very self-conscious in parenting.
5. Women may experience significant stress in parenting, as they attempt to be perfect mothers if the abortion detracted from their maternal identity.
6. A biologically or psychologically based thwarting of the maternal instinct is possible, since the decision to abort is



diametrically opposed to the protection and nurturance which the pregnant body and psyche are programmed to engage in.

Future research is clearly needed to identify the many possible intimate relationship trajectories and parenting patterns that may emerge after the experience of abortion. This much needed work should be conducted within a framework of sensitivity to distinct socio-demographic, psychological, and relationship profiles and with awareness of precisely how various mental health problems might be associated with distinct personal relationship challenges. For example, a 21-year old college senior who really wanted to have her baby and undergoes an abortion because her fiancé has just started graduate school, may become depressed, with feelings of loneliness and betrayal. In contrast, a 40-year old married mother of three, who decides to abort without telling her husband may begin to drink to suppress feelings of guilt and shame, and the secret she holds coupled with the effects of excessive drinking may lead to an emotional disconnection in the relationship. In each case the intimate relationship suffers, but the processes involved are very different.

As described at length above, there has been a considerable amount of research attention devoted to understanding women at risk for post-abortion mental health problems. We also know a great deal about the many possible mental health problems spanning various forms of anxiety, mood, and substance abuse disorders. Finally, newer work has moved beyond the woman's psychological experiences of abortion to address primary relationship implications. What we currently need are ambitious studies incorporating assessments of common risk factors as well as psychological and relationship outcomes in the context of the same investigation in order to illuminate the dynamic and complex processes linking pre and post-abortion experiences. Such efforts will facilitate substantive guidance for the development of therapeutic protocols designed to help women recover from their abortions without sacrificing their mental health and the quality of their closest relationships.



TABLE 1

### Empirical Studies Published Between 1972 and 2011 on Predictors of Adverse Post-Abortion Psychological Outcomes

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
1. Adler NE <i>et al.</i> (1975)	United States N=70 Local	<ul style="list-style-type: none"> <li>• Younger women</li> <li>• Unmarried women</li> <li>• Higher frequency of church attendance</li> <li>• Decision difficulty</li> <li>• <i>Religion unrelated</i></li> <li>• <i>Education unrelated</i></li> </ul>	Negative emotions (socially and internally-based)
2. Allanson S (2007)	Australia N=96 Local	<ul style="list-style-type: none"> <li>• Concern regarding mothering capacity</li> <li>• Insufficient role models</li> <li>• Unstable partner relationships</li> <li>• Defensive avoidance</li> <li>• Endorsing more reasons both for continuing the pregnancy and for the abortion</li> <li>• <i>Abortion beliefs and feelings toward pregnancy did not predict distress</i></li> </ul>	Emotional distress
3. Alter RC (1984)	Canada N=120 Local	<ul style="list-style-type: none"> <li>• Lower in androgenous traits</li> <li>• Lower in masculine traits</li> <li>• Self-perceptions discrepant from a career woman</li> </ul>	Negative psychological outcome
4. Ashok PW <i>et al.</i> (2005)	Scotland N=368 Local	<ul style="list-style-type: none"> <li>• Procedure type (surgical w/ less anxiety; medical w/self-esteem drop)</li> </ul>	Anxiety Self-esteem
5. Ashton JR (1980)	United Kingdom N=86 Local	<ul style="list-style-type: none"> <li>• Previous psychiatric problems</li> <li>• Abnormal obstetric history</li> <li>• Ambivalence</li> </ul>	Psychological morbidity
6. Athanasiou R <i>et al.</i> (1973)	United States N=373 Local	<ul style="list-style-type: none"> <li>• Low self-esteem</li> <li>• Low contraceptive knowledge</li> <li>• Strong feelings of alienation</li> <li>• Delayed abortion</li> </ul>	High MMPI psychopathology scale scores

WOMEN AT RISK FOR POST-ABORTION MENTAL HEALTH PROBLEMS

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
7. Barglow P & Weinstein S. (1973)	United States N=78 Local	<ul style="list-style-type: none"> <li>• Developmental immaturity</li> <li>• Ambivalence</li> <li>• Distorted perceptions about procedure</li> </ul>	Variety of pathological reactions
8. Belsey EM <i>et al.</i> (1977)	England N=360 Local	<ul style="list-style-type: none"> <li>• Ambivalence</li> <li>• Guilt about abortion</li> <li>• Unstable partner relationships</li> <li>• History of psychosocial instability</li> <li>• Poor or no family ties</li> <li>• Few friends</li> <li>• A poor work pattern</li> <li>• Failure to use contraceptives</li> <li>• <i>Being single and a prior abortion were not related</i></li> </ul>	Emotional disturbance
9. Bracken MB (1978)	United States N=215 Local	<ul style="list-style-type: none"> <li>• More pain during the procedure</li> <li>• Greater anxiety before the procedure</li> <li>• A difficult decision</li> <li>• Nulliparous</li> </ul>	Anxiety
10. Bracken MB <i>et al.</i> (1974)	United States N=490 Local	<ul style="list-style-type: none"> <li>• Younger women</li> <li>• Lack of partner support</li> <li>• Lack of parental support (opposition to abortion) in younger women.</li> <li>• Single</li> <li>• Never married</li> </ul>	Psychological sequelae
11. Bracken MB <i>et al.</i> (1978)	United States N=307 Local	<ul style="list-style-type: none"> <li>• An early decision about the pregnancy</li> <li>• Lack of support from mother</li> <li>• <i>Closeness of partner relationship, length of involvement with partner, and support for the decision in terms of partner were not related to sadness</i></li> </ul>	Sadness

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
12. Brewer C. (1978)	United Kingdom N=40 Local	<ul style="list-style-type: none"> <li>• Later abortion</li> </ul>	Adverse emotional consequences
13. Broen AN <i>et al.</i> (2006)	Norway N=120 Local	<ul style="list-style-type: none"> <li>• Doubt about the decision</li> <li>• Negative attitude towards abortion</li> <li>• Pre-abortion psychiatric problems</li> </ul>	Anxiety
14. Broen AN <i>et al.</i> (2005)	Norway N=80 Local	<ul style="list-style-type: none"> <li>• Financial reasons for abortion</li> <li>• Male partner did not favor having a child at the time</li> <li>• Pressure from male partner</li> <li>• Belief one has enough children</li> <li>• Feeling too young to have a child</li> <li>• Pressure from friends</li> <li>• Afraid the child welfare agency would take the baby if born</li> <li>• <i>Prior psychiatric history affected only a few outcomes</i></li> </ul>	Anxiety
15. Brown D <i>et al.</i> (1993)	N=45	<ul style="list-style-type: none"> <li>• Feeling coerced to abort (by peers, family, medical complications, economic fears)</li> <li>• Fantasizing about the aborted fetus</li> <li>• Religious conviction and involvement</li> </ul>	Negative psychological sequelae
16. Campbell NB <i>et al.</i> (1988)	United States N=71 Local	<ul style="list-style-type: none"> <li>• Timing during adolescence</li> <li>• Feeling coerced</li> </ul>	Nightmares, suicide attempts, antisocial and paranoid personality disorders, drug abuse, and psychotic delusions
17. Cohan CL (1993)	United States N=98 Local	<ul style="list-style-type: none"> <li>• Undecided about choice</li> <li>• Decisional stress</li> </ul>	Negative affect

WOMEN AT RISK FOR POST-ABORTION MENTAL HEALTH PROBLEMS

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
18. Cohen L & Roth SJ (1984)	United States N=55 Local	<ul style="list-style-type: none"> <li>• Avoidant coping</li> </ul>	Distress
19. Coleman PK <i>et al.</i> (2010)	United States N=374 Internet data collection	<ul style="list-style-type: none"> <li>• Social reasons for abortion</li> <li>• Abortions after 12 weeks gestation</li> </ul>	Social reasons associated with higher PTSD total and subscale scores. Later abortions associated with PTSD symptoms (higher intrusion subscale scores, disturbing dreams, reliving of the abortion, and trouble falling asleep).
20. Coleman PK & Nelson ES (1998)	United States N=63 (31 females) Local	<ul style="list-style-type: none"> <li>• Not being comfortable with the decision to abort predicted anxiety.</li> <li>• <i>No associations observed between comfort level and depression.</i></li> <li>• <i>Ambivalence and connection to the fetus were unrelated to anxiety and depression.</i></li> </ul>	Anxiety and depression
21. Coleman PK (2002)	United States N=54,419 Multisite (state-level data)	<ul style="list-style-type: none"> <li>• Age between 20 and 34</li> </ul>	1st-time outpatient mental health treatment
22. Congleton GK & Calhoun LG (1993)	United States N=50 Local	<ul style="list-style-type: none"> <li>• Initial high stress response</li> <li>• Religiosity</li> <li>• Affiliated with conservative churches</li> <li>• Lower degree of social support</li> <li>• Lower confidence in the abortion decision</li> <li>• Feelings of loss</li> </ul>	Distress

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
23. Conklin MP & O'Connor BP (1995)	Canada N=817 Multi-site	<ul style="list-style-type: none"> <li>• Beliefs in the humanity of the fetus</li> </ul>	Psychological well-being (self-esteem, negative affect, and satisfaction with life)
24. Cougle JR <i>et al.</i> (2003)	United States N=1,884 National	<ul style="list-style-type: none"> <li>• White</li> <li>• Married</li> <li>• First marriage did not end in divorce</li> </ul>	Depression
25. Cougle JR <i>et al.</i> (2005)	United States 10,847 National	<ul style="list-style-type: none"> <li>• Highest percentages observed under age 20</li> <li>• Married</li> <li>• White, Hispanic, and other races categories</li> <li>• <i>Not Black</i></li> </ul>	Generalized anxiety
26. Coyle CT <i>et al.</i> (2010)	International N=374 Multisite	<ul style="list-style-type: none"> <li>• Perceptions of preabortion counseling inadequacy</li> <li>• Incongruence with partner in the decision to abort</li> </ul>	Relationship Problems PTSD symptoms
27. Cozzarelli C. (1993)	United States N=291 Local	<ul style="list-style-type: none"> <li>• Low self-efficacy</li> <li>• Low optimism,</li> <li>• Low self-esteem</li> <li>• Pre-abortion depression</li> </ul>	Poor psychological adjustment
28. Cozzarelli C, Major B. (1994)	United States N=291 Local	<ul style="list-style-type: none"> <li>• Intense "anti-abortion" activity while attempting to enter an abortion clinic.</li> </ul>	Depression
29. Cozzarelli C <i>et al.</i> (1998)	United States N=408 Local	<ul style="list-style-type: none"> <li>• Mental models of insecure attachment</li> <li>• Low self-efficacy for coping with abortion</li> <li>• Low self-esteem</li> <li>• Low perceived support from male partner</li> <li>• Perceived conflict with male partner</li> </ul>	Psychological distress
30. David HP (1985)	Denmark National	<ul style="list-style-type: none"> <li>• Separated, divorced and widowed women.</li> </ul>	Psychiatric admission

# WOMEN AT RISK FOR POST-ABORTION MENTAL HEALTH PROBLEMS

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
31. Drower SJ & Nash ES (1978)	United Kingdom N=197 Local	•Prior psychiatric disorder	In need of psychiatric treatment
32. Eisen M & Zellman GL (1984)	United States N = 297 Local	<ul style="list-style-type: none"> <li>•Negative abortion opinion</li> <li>•Less liberal attitudes towards abortion for others</li> <li>•Their mothers' lower educational attainment</li> <li>•Inconsistent contraception use</li> </ul>	Decision dissatisfaction
33. Ewing JA & Rouse BA (1973)	United States N=126 Local	•Prior psychiatric history	Emotional problems
34. Faure S & Loxton H (2003)	South Africa N=76	<ul style="list-style-type: none"> <li>•Low self-efficacy</li> <li>•Low education</li> <li>•Unmarried</li> <li>•Pre-abortion depression</li> <li>•Greater gestational age</li> </ul>	Anxiety and depression
35. Fergusson DM <i>et al.</i> (2009)	New Zealand N=532 National	•Number of negative emotional responses to the abortion	Mental health problems
36. Fielding SL & Schaff EA (2004)	United States N=50 Local	•Defined their pregnancy as a baby	Emotional distress
37. Franco KN <i>et al.</i> (1989)	United states N=150 Local	<ul style="list-style-type: none"> <li>•Multiple abortions</li> <li>•Premorbid psychiatric illness</li> <li>•Lack of family support</li> <li>•Ambivalence</li> <li>•Feeling coerced into having an abortion</li> <li>•Anger towards partner</li> </ul>	Depression Borderline Personality Disorder
38. Franz W & Reardon D (1992)	United States N=252 National	<ul style="list-style-type: none"> <li>•Timing in adolescence</li> <li>•Feeling misinformed</li> <li>•Adolescents more likely to express the following when compared to adult women: <ul style="list-style-type: none"> <li>– Feeling forced by circumstances</li> </ul> </li> </ul>	Psychological distress

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
		<ul style="list-style-type: none"> <li>– Dissatisfied at time of procedure</li> <li>– Abortions occurring at later gestational ages</li> <li>– Negative views of abortion</li> <li>– Pregnancy wantedness</li> </ul>	
39. Freeman EW (1978)	N=329	<ul style="list-style-type: none"> <li>• Avoidance of feelings</li> <li>• Negative self-esteem</li> <li>• Lack of partner support</li> </ul>	Negative resolution of abortion-related emotions, described as extremely upsetting
40. Freeman EW (1977)	N=329	<ul style="list-style-type: none"> <li>• Pre-existing anxiety and/or depression</li> <li>• Anxiety at the time of abortion</li> <li>• Undecided, confused</li> <li>• Did not use contraception</li> <li>• Negative self-image</li> <li>• Avoidance of feelings</li> <li>• Other personality traits (dramatic, self-pitying, easily hurt, timid, submissive, restless, impulsive, indifferent)</li> </ul>	Negative emotions
41. Freeman EW <i>et al.</i> (1980)	United States N=413 Local	<ul style="list-style-type: none"> <li>• Repeat abortion</li> </ul>	Emotional distress scores in dimensions relating to interpersonal relationships
42. Gilchrist AC <i>et al.</i> (1995)	England N=13,261 National	<ul style="list-style-type: none"> <li>• Previous psychiatric illness</li> </ul>	Psychiatric illness
43. Gissler M <i>et al.</i> (1996)	Finland N=9192 National	<ul style="list-style-type: none"> <li>• Timing in adolescence</li> <li>• Lower social classes</li> <li>• Unmarried</li> </ul>	Suicide
44. Gissler M <i>et al.</i> (2005)	Finland N=5229 National	<ul style="list-style-type: none"> <li>• Younger age (15-24)</li> </ul>	Suicide

WOMEN AT RISK FOR POST-ABORTION MENTAL HEALTH PROBLEMS

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
45. Greenglass ER (1975)	Canada N=188 Local	<ul style="list-style-type: none"> <li>• Low social support</li> <li>• Marital status (married women more prone to depression and single women to shallow affect)</li> </ul>	Neurotic disturbance including depression and shallow affect
46. Greer HS <i>et al.</i> (1976)	England N=360	<ul style="list-style-type: none"> <li>• Prior psychiatric history</li> </ul>	Psychiatric symptoms, guilt feelings, and adjustment in marital and other interpersonal relationships, sexual responsiveness and work record
47. Hamama L <i>et al.</i> (2010)	United States N=1581	<ul style="list-style-type: none"> <li>• History of sexual trauma</li> <li>• Subjective interpretation of the abortion as being very hard</li> <li>• Rating abortion as one of the two worst traumas ever experienced</li> </ul>	PTSD Depression
48. Hamark B <i>et al.</i> (1995)	Sweden N=444 Local	<ul style="list-style-type: none"> <li>• <i>Social class not related</i></li> </ul>	Psychological responses
49. Hemmerling A <i>et al.</i> (2005)	Germany N=219 Local	<ul style="list-style-type: none"> <li>• Type of procedure (medical vs. surgical) no impact</li> </ul>	Anxiety Depression Emotional impact
50. Henshaw R <i>et al.</i> (1994)	United Kingdom N=363 Local	<ul style="list-style-type: none"> <li>• Pre-existing mood disorder</li> <li>• Smokers</li> <li>• Medical complications</li> <li>• <i>Type of procedure (medical vs. surgical) no impact</i></li> </ul>	Anxiety Depression Low self-esteem.
51. Hill RP <i>et al.</i> (1994)	United States N=92 Local	<ul style="list-style-type: none"> <li>• Poor treatment during illegal abortions</li> <li>• Conflict over the meaning of abortion</li> <li>• Bonding with the fetus prior to abortion</li> <li>• Ambivalence about the degree to which the pregnancy was desired</li> </ul>	Long-term negative emotional reactions



Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
52. Hittner A (1987)	N=217	<ul style="list-style-type: none"> <li>• Lower socioeconomic status</li> <li>• Having children</li> </ul>	Negative emotions
53. Jacobs D <i>et al.</i> (1974)	United States N=57 Local	<ul style="list-style-type: none"> <li>• Psychiatric care prior to abortion</li> </ul>	Emotional distress
54. Kaltreider NB (1979)	United States N=250 Local	<ul style="list-style-type: none"> <li>• Abortions by intra-amniotic injection of prostaglandin (amnio) compared to dilatation and extraction (D and E) under general anesthesia</li> </ul>	Guilt, anger, and depression
55. Kapo- Stanulovic N. (1972)	Serbia N=130 Local	<ul style="list-style-type: none"> <li>• Ambivalence</li> <li>• Considered carrying to term</li> </ul>	Emotional upset
56. Kero A & Lalos A (2000)	Sweden N=211 Local	<ul style="list-style-type: none"> <li>• Feeling values were ethically violated</li> </ul>	Guilt and shame
57. Kero A <i>et al.</i> (2004)	N=61	<p>Mild/moderate distress predictors:</p> <ul style="list-style-type: none"> <li>• Motives for the abortion had to do with external circumstances including partner difficulties</li> <li>• Conflict of conscience</li> <li>• Religious</li> <li>• Pressured to abort</li> </ul> <p>Severe emotional distress predictors:</p> <ul style="list-style-type: none"> <li>• Great difficulty making the decision/ambivalence</li> <li>• Conflict of conscience</li> <li>• Religious</li> <li>• Explicit reasons why they could not carry to term were given (e.g., finances or partner's attitude)</li> <li>• Grief/feelings of loss</li> </ul>	<p>1) Mild/moderate emotional distress</p> <p>2) Severe emotional distress</p>

WOMEN AT RISK FOR POST-ABORTION MENTAL HEALTH PROBLEMS

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
58. Lask B (1975)	United Kingdom N=50 Local	<ul style="list-style-type: none"> <li>•Deserted by partner</li> <li>•Age group 21 to 30</li> <li>•Having children</li> <li>•Foreign born</li> <li>•Previous psychiatric illness</li> <li>•Psychiatric illness at the time of the abortion</li> <li>•Moderate to strong degree of ambivalence</li> </ul>	Psychiatric sequelae
59. Lauzon P <i>et al.</i> (2000)	Canada N=925	<ul style="list-style-type: none"> <li>•Fears of negative effects on the relationship</li> <li>•Unsatisfactory relationships</li> <li>•Relationships of less than 1 year</li> <li>•Ambivalence about the decision to abort</li> <li>•Not having a previous child</li> <li>•Past suicidal ideation</li> <li>•Negative perception of own health</li> <li>•Having discussed the situation with someone other than a partner</li> </ul>	Psychological symptoms
60. Lazarus A (1985)	United States N=292 Local	<ul style="list-style-type: none"> <li>•Delay their decision to abort</li> <li>•Have a severe pre-abortion psychiatric disorder</li> </ul>	Psychiatric sequelae
61. Lewis CC (1980)	United States N=42 Multisite	<ul style="list-style-type: none"> <li>•Minors thinking their decisions are controlled by external forces (external locus of control)</li> </ul>	Guilt
62. Linares LO (1992)	N=120	<ul style="list-style-type: none"> <li>•Pre-abortion depression symptoms</li> <li>•Multiple abortions</li> </ul>	Depression scores
63. Lowenstein L <i>et al.</i> (2006)	N=200	<ul style="list-style-type: none"> <li>•<i>Type of abortion (medical vs. surgical) no differences</i></li> </ul>	Psychological symptoms
64. Lydon J <i>et al.</i> (1996)	N=57	<ul style="list-style-type: none"> <li>•Commitment to pregnancy</li> </ul>	Depression, guilt, hostility

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
65. Major B <i>et al.</i> (2000)	United States N=882 Multisite within NY state	<ul style="list-style-type: none"> <li>• Pre-pregnancy history of depression</li> <li>• Low self-esteem</li> <li>• Younger age</li> <li>• Having more children pre-abortion</li> </ul>	Depression and self-esteem, negative emotions, decision dissatisfaction, perceived harm, and PTSD
66. Major B <i>et al.</i> (1990)	United States N=283 Local	<ul style="list-style-type: none"> <li>• Low support from family, friends, and partners predicted self-efficacy for coping.</li> </ul> <p>Low self-efficacy, in turn, predicted worse adjustment</p> <ul style="list-style-type: none"> <li>• Women who told close others of their abortion but perceived them as less than completely supportive had poorer outcomes than either women who did not tell or women who told and perceived complete support.</li> </ul>	Psychological adjustment
67. Major B & Gramzow RH (1999)	United States N=442 Multisite within NY state	<ul style="list-style-type: none"> <li>• Suppression/concealment of experience</li> <li>• Intrusive thoughts</li> </ul>	Psychological distress
68. Major B <i>et al.</i> (1985)	United states N=247 Local	<ul style="list-style-type: none"> <li>• Blaming their pregnancy on their character</li> <li>• Low self-efficacy/coping expectations</li> <li>• Perceptions of the pregnancy as meaningful</li> <li>• Pregnancy intendedness</li> <li>• Partner accompanying woman predicted depression but younger women were more likely accompanied and they had lower coping expectations</li> </ul>	Affective state, anticipated negative consequences, and depression

WOMEN AT RISK FOR POST-ABORTION MENTAL HEALTH PROBLEMS

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
69. Major B <i>et al.</i> (1998)	United States N=527 Local	<ul style="list-style-type: none"> <li>• Less resilient personalities</li> <li>• Low self-efficacy</li> <li>• Tendency not to use acceptance/positive reframing for coping.</li> <li>• Relied on avoidance/denial and venting to cope.</li> <li>• Low support-seeking</li> <li>• Religious</li> </ul>	Stressfulness Decision satisfaction
70. Major B <i>et al.</i> (1997)	United States N=615 Local	<ul style="list-style-type: none"> <li>• Conflict with partner</li> <li>• Low partner support</li> <li>• High support from mothers or friends and perceiving them as sources of high conflict</li> </ul>	Negative adjustment/ distress
71. Martin CD (1973)	United States N=52 Local	<ul style="list-style-type: none"> <li>• Feelings of guilt,</li> <li>• Pre-abortion mental health</li> <li>• Degrees of involvement with their pregnancies and their unborn children</li> <li>• Negative relationships w/school personnel</li> <li>• Negative relationships w/ friends</li> <li>• Negative reactions felt from others</li> <li>• Dissatisfaction with abortion</li> <li>• Sex information</li> <li>• Negative relationships with their mothers</li> <li>• Low partner support</li> <li>• Negative parental reactions</li> </ul>	Psychological problems
72. Miller WB (1992)	N=967	<ul style="list-style-type: none"> <li>• Enjoyment in being pregnant</li> <li>• Desire to have the child</li> <li>• Decisions made to abort where in the woman and her partner have different desires, particularly when the woman acquiesces to his wishes</li> <li>• Parental domination over adolescent decisions</li> </ul>	Psychosocial emotional upset and regret

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
73. Moseley DT <i>et al.</i> (1981)	United States N=62 Local	<ul style="list-style-type: none"> <li>• The degree of emotional support that women received from a series of significant persons.</li> <li>• Opposition to the abortion from others.</li> <li>• Women who felt they did not make their own decision to abort revealed</li> </ul>	Anxiety Depression Hostility
74. Mueller P, Major BJ (1989)	United States N=283	<ul style="list-style-type: none"> <li>• Low coping self-efficacy</li> <li>• High self-character blame</li> <li>• High other-blame</li> </ul>	Depression Mood Anticipated negative consequences
75. Mufel N <i>et al.</i> (2002)	Belarus N=150 Local	<ul style="list-style-type: none"> <li>• Increased weeks of pregnancy</li> <li>• Attachment to the fetus/embryo and recognition of life</li> <li>• Lack of social support in decision-making</li> <li>• Younger women (under 22) and older women (over 40)</li> <li>• Wantedness of pregnancy</li> </ul>	PTSD Anxiety/panic Emotional numbness Depression Guilt
76. Munk-Olsen T <i>et al.</i> (2011)	Denmark N=954,702 National	<ul style="list-style-type: none"> <li>• <i>Age no effect</i></li> <li>• <i>Parity no effect</i></li> <li>• <i>Presence of absence of a mental disorder in a parent no effect</i></li> </ul>	Mental disorder
77. Ney PG <i>et al.</i> Fung T (1994)	Canada N=1428 Local	<ul style="list-style-type: none"> <li>• Multiple abortions</li> <li>• Lack of partner support</li> <li>• Poor family life</li> </ul>	Physical and Emotional health
78. Niinimäki M <i>et al.</i> (2011)	Finland N = 27,030 National	<ul style="list-style-type: none"> <li>• Adolescent age</li> </ul>	Psychiatric morbidity
79. Osler M <i>et al.</i> (1997)	Denmark N=150 Local	<ul style="list-style-type: none"> <li>• Multiple abortions: 3<sup>rd</sup> time aborters reported more problems associated with their 2<sup>nd</sup> abortion than 2<sup>nd</sup> aborters reported for their first 1<sup>st</sup>.</li> </ul>	Short-term psychological problems: sadness and regret

WOMEN AT RISK FOR POST-ABORTION MENTAL HEALTH PROBLEMS

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
80. Østbye T <i>et al.</i> (2001)	Canada N=80,295 Multisite	•Hospital day-surgery patients had higher rates than community clinic patients.	Psychiatric problems
81. Payne EC <i>et al.</i> (1976)	United States N=102 Local	<ul style="list-style-type: none"> <li>•Single</li> <li>•Nulliparous</li> <li>•Those with previous history of serious emotional problems</li> <li>•Immature personal relationships</li> <li>•Conflicted relationships with lovers</li> <li>•Past negative relationships to mother</li> <li>•Strong ambivalence toward abortion or and uncertain, indecisive, helpless approach to seeking an abortion</li> <li>•Negative religious or cultural attitudes about abortion.</li> </ul>	Psychological conflict
82. Pedersen W (2008)	Norway N=768 National	•Younger (20s) at time of abortion	Depression
83. Pedersen W (2007)	Norway N=768 National	•No present partner relationship with the father of aborted fetus	Substance abuse
84. Peppers LG (1987)	United States N=80 Local	•Length of pregnancy	Grief
85. Perez-Reyes MG & Falk R (1973)	United States 41 Local	<ul style="list-style-type: none"> <li>•Not wanting abortion</li> <li>•Parents critical and punitive</li> <li>•Caretaking personnel and society did not show helpful attitude</li> <li>•Emotional problems</li> </ul>	Negative emotions (guilt, depression, and anger)
86. Pope LM <i>et al.</i> (2001)	United States N=96 Local	•Adolescents less comfortable with decision, <i>but no different from those 18-21 on other variables</i>	Psychological adjustment including depression, anxiety, self-esteem

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
		<ul style="list-style-type: none"> <li>• Pre-abortion emotional state</li> <li>• Perception of partner pressure</li> <li>• <i>Variables unrelated to the outcome measures: ethnicity, religion, frequency of attendance at religious services, marital status, living situation, level of education), relationship with partner, feelings about pregnancy, difficulty of abortion decision, prior pregnancy, prior abortion, and parental pressure</i></li> </ul>	
87. Prommanart N <i>et al.</i> (2004)	Thailand N=132 Local	<ul style="list-style-type: none"> <li>• Low income</li> <li>• Had ultrasonography</li> <li>• Gestational age of &gt; 16 weeks</li> <li>• Methods of treatment</li> <li>• <i>Marital status previous abortion, and parity not related</i></li> </ul>	Grief
88. Quinton WJ <i>et al.</i> (2001)	United States N=440 Local	<ul style="list-style-type: none"> <li>• <i>Timing during adolescence.. no differences in mental health variables.</i></li> <li>• Adolescents indicated less decision satisfaction and perceived less benefit than adults</li> </ul>	<ul style="list-style-type: none"> <li>• Psychological adjustment</li> <li>• Depression</li> </ul>
89. Reardon DC & Cougle JR (2002)	United States N=12,686, National	<ul style="list-style-type: none"> <li>• Married</li> </ul>	<ul style="list-style-type: none"> <li>• Depression</li> </ul>
90. Reardon DC <i>et al.</i> (2002)	United States N=173,279 (1,713 deaths) Multisite	<ul style="list-style-type: none"> <li>• Women age 39 and under</li> </ul>	<ul style="list-style-type: none"> <li>• Suicide</li> </ul>
91. Remennick L & Segal R (2001)	Israel N=48 Local	<ul style="list-style-type: none"> <li>• Resettled immigrant status as opposed to local</li> <li>• Inadequate support from others</li> <li>• Prior emotional problems</li> </ul>	<ul style="list-style-type: none"> <li>• Negative emotions</li> </ul>

WOMEN AT RISK FOR POST-ABORTION MENTAL HEALTH PROBLEMS

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
		<ul style="list-style-type: none"> <li>•Wanted/meaningful pregnancy</li> <li>•Unstable partner relationships</li> <li>•Financial or other material problems such as poor housing</li> <li>•Internal struggle while making decision to abort</li> <li>•No children</li> <li>•Guilt about not having a baby</li> <li>•Self-blame for being careless</li> <li>•Anger at partner</li> <li>•Difficulty coping with the abortion</li> <li>•Problematic relationships with partners</li> <li>•Troubled relationships with family</li> <li>•Unemployed</li> <li>•Unsatisfied with jobs</li> </ul>	
92. Robbins JM & DeLamater JD (1985)	Canada N=228 Local	<ul style="list-style-type: none"> <li>•Lack of support from the partner</li> <li>•Accompanied to the clinic by someone other than parents or partner</li> <li>•<i>Involvement or support from parents had no effect</i></li> <li>•<i>Mother's lack of acceptance of daughter's decision had no effect.</i></li> <li>•<i>Lack of support from friends and relatives had no effect.</i></li> </ul>	Loneliness, feelings of isolation, estrangement
93. Rue VM <i>et al.</i> (2004)	United States and Russia N=548 Multisite	<ul style="list-style-type: none"> <li>•History of adverse childhood events and prior traumata</li> <li>•Younger</li> <li>•History of divorce</li> <li>•Not employed full time</li> <li>•More education</li> <li>•More abortions</li> <li>•More religious</li> <li>•Having more children</li> <li>•Having bonded to the fetus</li> </ul>	PTSD symptoms



Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
		<ul style="list-style-type: none"> <li>• Not believing in a woman's right to abort</li> <li>• Having a partner who desired the pregnancy</li> <li>• Health complications</li> <li>• Pressure to abort</li> <li>• Ambivalence surrounding the decision</li> <li>• No counseling prior to the procedure</li> <li>• Farther along in pregnancy</li> </ul>	
94. Russo NF & Dabul AJ (1997)	United States N=4336	<ul style="list-style-type: none"> <li>• Low level of well-being before abortion</li> <li>• Low self-esteem prior to abortion</li> <li>• <i>Race and religion did not have independent associations</i></li> </ul>	Compromised well-being
95. Russo, NF & Zierk KL(1992)	United States N=5295 National	<ul style="list-style-type: none"> <li>• Low self-esteem</li> <li>• <i>Childless women not at risk.</i></li> </ul>	Psychological well-being
96. Shusterman LR (1979)	United States N=393 Local	<ul style="list-style-type: none"> <li>• Dissatisfaction with her decision to abort</li> <li>• Low intimacy between the woman and her male partner</li> <li>• Male partner did not participate in the experience</li> <li>• How anxious and/or angry the woman became when she first suspected she was pregnant</li> </ul>	Negative psychological sequelae
97. Slade P <i>et al.</i> (2001)	United Kingdom N=208 Local	<ul style="list-style-type: none"> <li>• Less positive and more judgmental attitudes of staff</li> <li>• Seeing the fetus</li> <li>• Medical form of abortion</li> </ul>	Stress
98. Sit D (2007)	N=78	<ul style="list-style-type: none"> <li>• Past psychiatric history</li> <li>• Anxiety disorders</li> <li>• <i>No differences based on type of abortion (surgical vs. medical)</i></li> </ul>	Post-abortion depression

WOMEN AT RISK FOR POST-ABORTION MENTAL HEALTH PROBLEMS

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
99. Söderberg H <i>et al.</i> (1998)	Sweden N=1285 Local	<ul style="list-style-type: none"> <li>• Inadequate support from personal network and facility</li> </ul>	Adverse psychological reactions
100. Söderberg H <i>et al.</i> (1998)	Sweden N=854 Local	<ul style="list-style-type: none"> <li>• Living alone</li> <li>• Poor emotional support from family and friends</li> <li>• Underlying ambivalence</li> <li>• Adverse attitude toward abortion</li> <li>• Actively religious</li> </ul>	Emotional distress
101. Steinberg JR <i>et al.</i> (2011)	United States N=5,877 National	<ul style="list-style-type: none"> <li>• Depression, suicidal ideation, and sexual violence</li> </ul>	Depression Suicide ideation Low self-esteem
102. Steinberg JR & Finer LB (2011)	United States N=2065 National	<ul style="list-style-type: none"> <li>• Prior mental health</li> <li>• Multiple abortions</li> <li>• <i>Prior sexual violence had no effect</i></li> </ul>	Anxiety disorders Substance abuse disorders
103. Steinberg JR & Russo NF (2008)	United States N= National	<ul style="list-style-type: none"> <li>• Multiple abortions</li> <li>• Pregnancy Intendedness</li> <li>• Exposure to violence</li> </ul>	PTSD Social Anxiety
104. Suliman S <i>et al.</i> (2007)	South Africa N=155 Local	<ul style="list-style-type: none"> <li>• PTSD at baseline predicted PTSD at 1 and 3 mos</li> <li>• <i>Use of local anesthesia compared to intravenous sedation did not predict much other than dissociative symptoms at 2 month</i></li> </ul>	PTSD
105. Talan KH (1972)	United States N=22 Local	<ul style="list-style-type: none"> <li>• Doubts about decision during the procedure</li> <li>• Thoughts related to killing the baby</li> <li>• Inadequate support from partner</li> <li>• Inadequate support from family</li> <li>• Black</li> </ul>	Guilt and sadness
106. Tamburrino (1990)	United States N=71 Local	<ul style="list-style-type: none"> <li>• Adopting a traditional role of homemaker</li> </ul>	Dysphoria

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
107. Taft AJ & Watson LF (2008)	Australia N=14,776 National	<ul style="list-style-type: none"> <li>Any form of violence, particularly partner violence</li> </ul>	Depression
108. Teichman (1993)	Israel N=154	<ul style="list-style-type: none"> <li>Unmarried women</li> <li>Low cohesion in marriages</li> <li>Low adaptability in marriage did not relate to outcomes.</li> <li>Age, employment, religiosity, ethnic origin, and personality factors did not relate to outcomes.</li> </ul>	Emotional distress (anxiety and depression)
109. Thomas T & Tori CD (1999)	United States N=119 Local	<ul style="list-style-type: none"> <li>Dissatisfaction with choice</li> <li>Negative attitudes</li> <li>Religious affiliation (Catholic)</li> <li>Women with prior psychiatric history not found to be at increased risk</li> </ul>	Psychological distress
110. Törnblom M (1996)	Sweden N=404	<ul style="list-style-type: none"> <li>Repeat abortion</li> </ul>	Disharmony in partner relationship Psychological problems
111. Urquhart DR Templeton A (1991)	United Kingdom N=91 Local	<ul style="list-style-type: none"> <li>Medical vs. surgical. no differences in outcome</li> </ul>	Short-term psychiatric morbidity
112. van Emmerik AA (2008)	Netherlands N=113 Local	<ul style="list-style-type: none"> <li>Difficulty describing feelings</li> </ul>	Re-experiencing and avoidance
113. Wallerstein JS et al. (1972)	United States N=22 Local	<ul style="list-style-type: none"> <li>Intense fantasies about the unborn child generated by the pregnancy</li> <li>Prior mental health problems</li> <li>Secrecy from family and associated guilt</li> <li>Adequacy of psychosocial support network did not affect outcomes</li> <li>No association with procedure variables (type of procedure, the kind of hospital experience, relationship with doctor, etc.)</li> </ul>	Psychological distress

WOMEN AT RISK FOR POST-ABORTION MENTAL HEALTH PROBLEMS

Author(s) Year of Publication	Nation Sample Size Representativeness National Multisite Local	Risk Factors(s)	Post-Abortion Outcome(s) Assessed
114. Warren JT <i>et al.</i> 2010	United States N=289 National	<ul style="list-style-type: none"> <li>• Pre-abortion depression</li> <li>• Pre-abortion self-esteem</li> </ul>	Depression and low self-esteem
115. Wiebe ER & Adams LC (2009)	Canada N=508 Local	<ul style="list-style-type: none"> <li>• <i>Viewing products of conception among those that opted to view them (28.7%) not related</i></li> </ul>	Difficult emotion
116. Wiebe ER <i>et al.</i> (2004)	Canada N=112 Local	<ul style="list-style-type: none"> <li>• "Anti-choice" views</li> <li>• Medical abortion compared to surgical</li> <li>• Lower education</li> <li>• More likely to attend religious services</li> <li>• Asian immigrants</li> </ul>	Anxiety
117. Wells N (1991)	United States N=35 Local	<ul style="list-style-type: none"> <li>• Previous abortion</li> <li>• No children</li> <li>• Pre-abortion anxiety</li> <li>• <i>Type of anesthesia had no effect</i></li> </ul>	Affective and behavioral distress
118. Williams GB (2001)	N=93 Local	<ul style="list-style-type: none"> <li>• Presence of living children</li> <li>• Perceived pressure to have the abortion</li> <li>• The number of abortions (increased risk with more)</li> </ul>	Short and long-term grief response
119. Yilmaz N <i>et al.</i> (2010)	N=835	<ul style="list-style-type: none"> <li>• Surgical abortion had higher rates than medical abortion</li> <li>• Young age</li> <li>• History of psychiatric of depressive disorder</li> </ul>	Depression

**APPENDIX A: Full Citations of Studies listed in Table 1**

- 1) Adler NE. Emotional responses of women following therapeutic abortion. *Am J Orthopsychiatry*. 1975; 45(3): 446-54.
- 2) Allanson S. Abortion decision and ambivalence: Insights via an abortion decision balance sheet. *Clinical Psychologist* 2007; 11 (2), pp. 50-60.
- 3) Alter RC. Abortion outcome as a function of sex-role identification. *Psychol Women Q*. 1984; 8(3): 211-33.
- 4) Ashok PW, Hamoda H, Flett GM, Kidd A, Fitzmaurice A, Templeton A. Psychological sequelae of medical and surgical abortion at 10-13 weeks gestation. *Acta Obstet Gynecol Scand*. 2005; 84(8): 761-6.
- 5) Ashton JR. The psychosocial outcome of induced abortion. *Br J Obstet Gynaecol*. 1980; 87(12): 1115-22.
- 6) Athanasiou R, Oppel W, Michelson L, Unger T, Yager M. Psychiatric sequelae to term birth and induced early and late abortion: a longitudinal study. *Fam Plann Perspect*. 1973; 5(4): 227-31.
- 7) Barglow P, Weinstein S. Therapeutic abortion during adolescence: psychiatric observations. *J Youth Adolesc*. 1973; 2(4): 331-42.
- 8) Belsey EM, Greer HS, Lal S, Lewis SC, Beard RW. Predictive factors in emotional response to abortion: King's termination study-IV. *Social Science and Medicine* 1977; 11(2): 71-82.
- 9) Bracken MB. A Causal Model of Psychosomatic Reactions to Vacuum Aspiration Abortion, *Social Psychiatry* 1978, 13: 135-145.
- 10) Bracken MB, Hachamovitch M, Grossman G. The decision to abort and psychological sequelae. *J Nerv Ment Dis*. 1974; 158(2): 154-62.
- 11) Bracken MB, Klerman LV, Bracken M. Coping with pregnancy resolution among never- married women. *Am J Orthopsychiatry* 1978; 48(2): 320-34.
- 12) Brewer CJ. Induced abortion after feeling fetal movements: its causes and emotional consequences. *Biosoc Sci*. 1978; 10(2): 203-8.
- 13) Broen AN, Moum T, Bødtker AS, Ekeberg O. Predictors of anxiety and depression following pregnancy termination: a

- longitudinal five-year follow-up study. *Acta Obstetrica Et Gynecologica Scandinavica* [Acta Obstet Gynecol Scand] 2006; 85(3), pp. 317-23.
- 14) Broen AN, Moum T, Bødtker AS, Ekeberg O. Reasons for induced abortion and their relation to women's emotional distress: a prospective, two-year follow-up study. *Gen Hosp Psychiatry* 200; 27(1): 36-43.
- 15) Brown D, Elkins TE, Larson DB. Prolonged grieving after abortion: a descriptive study. *J Clin Ethics* 1993; 4(2): 118-23.
- 16) Campbell NB, Franco K, Jurs S. Abortion in adolescence. *Adolescence* 1988; 23(92): 813-23.
- 17) Cohan CL, Dunkel-Schetter C, & Lydon J. Pregnancy decision-making: Early predictors of stress and adjustment. *Psychology of Women Quarterly* 1993; 17, 223-239.
- 18) Cohen L, Roth SJ. Coping with abortion. *Human Stress* 1984; 10(3): 140-5.
- 19) Coleman PC, Coyle CT, Rue VM. Late-Term Elective Abortion and Susceptibility to Posttraumatic Stress Symptoms. *Journal of Pregnancy* 2010; 1-10.
- 20) Coleman PK, Nelson ES. The quality of abortion decisions and college students' reports of post-abortion emotional sequelae and abortion attitudes. *J Soc Clin Psychol* 1998; 17(4): 425-42.
- 21) Coleman PK, Reardon DC, Rue VM, Cogle J. State-funded abortions versus deliveries: a comparison of outpatient mental health claims over 4 years. *Am J Orthopsychiatry* 2002; 72(1): 141-52.
- 22) Congleton GK, Calhoun LG. Post-abortion perceptions: a comparison of self-identified distressed and nondistressed populations. *Int J Soc Psychiatry* 1993; 39(4): 255-65.
- 23) Conklin MP, O'Connor BP. Beliefs about the fetus as a moderator of post-abortion psychological well-being. *Journal of Social and Clinical Psychology* 1995; 14, 76-95.
- 24) Cogle JR, Reardon DC, Coleman PK. Depression associated with abortion and childbirth: a long-term analysis of the NLSY cohort. *Med Sci Monit.* 2003; 9(4): CR105-12.
- 25) Cogle JR, Reardon DC, Coleman PK. Generalized anxiety

- following unintended pregnancies resolved through childbirth and abortion: a cohort study of the 1995 National Survey of Family Growth. *J Anxiety Disorders* 2005; 19(1): 137-42.
- 26) Coyle CT, Coleman PK, Rue VM. Inadequate Preabortion Counseling and Decision Conflict as Predictors of Subsequent Relationship Difficulties and Psychological Stress in Men and Women. *Traumatology: An International Journal* 2010; 16, 16-30.
  - 27) Cozzarelli C. Personality and self-efficacy as predictors of coping with abortion. *J Pers Soc Psychol.* 1993; 65(6): 1224-36.
  - 28) Cozzarelli C, Major B. The effects of anti-abortion demonstrators and pro-choice escorts on women's psychological responses to abortion. *Journal of Social & Clinical Psychology* 1994; 13(4): pp. 404-27.
  - 29) Cozzarelli C, Sumer N, Major B. Mental models of attachment and coping with abortion. *J Pers Soc Psychol* 1998; 74(2): 453-67.
  - 30) David HP. Post-abortion and post-partum psychiatric hospitalization. *Ciba Found Symp.* 1985; 115: 150-64.
  - 31) Drower SJ; Nash ES. Therapeutic abortion on psychiatric grounds. *South African Medical Journal* 1978; 54 (15), pp. 604-8.
  - 32) Eisen M, Zellman GL. Factors predicting pregnancy resolution decision satisfaction of unmarried adolescents. *J Genet Psychol.* 1984; 145 (2D Half): 231-9.
  - 33) Ewing JA, Rouse BA. Therapeutic abortion and a prior psychiatric history. *Am J Psychiatry.* 1973; 130(1): 37-40.
  - 34) Faure S, Loxton H. Anxiety, depression and self-efficacy levels of women undergoing first trimester abortion *South African Journal of Psychology*; 2003, 33(1), p. 28.
  - 35) Fergusson DM, Horwood LJ, Boden JM. Reactions to abortion and subsequent mental health. *Br J Psychiatry.* 2009; 195(5): 420-6.
  - 36) Fielding SL, Schaff EA. Social context and the experience of a sample of U.S. women taking RU-486 (mifepristone) for early abortion. *Qualitative Health Research* 2004; 14(5), pp. 612-27.
  - 37) Franco KN, Tamburrino MB, Campbell NB, Pentz JE, Jurs SG. Psychological profile of dysphoric women postabortion. *J Am Med Womens Assoc.* 1989; 44(4): 113-5.

- 38) Franz W, Reardon D. Differential impact of abortion on adolescents and adults. *Adolescence* 1992; 27(105): 161-72.
- 39) Freeman EW. Abortion: subjective attitudes and feelings. *Fam Plann Perspect.* 1978; 10(3): 150-5.
- 40) Freeman EW. Influence of personality attributes on abortion experiences. *Am J Orthopsychiatry* 1977; 47(3): 503-13.
- 41) Freeman EW, Rickels K, Huggins GR, Garcia CR, Polin J. Emotional distress patterns among women having first or repeat abortions. *Obstet Gynecol.* 1980; 55(5): 630-6.
- 42) Gilchrist AC, Hannaford PC, Frank P, Kay CR. Termination of pregnancy and psychiatric morbidity *Br J Psychiatry* 1995; 167(2): 243-8.
- 43) Gissler M, Hemminki E, Lönnqvist J. Suicides after pregnancy in Finland, 1987-94: register linkage study. *BMJ.* 1996; 313(7070): 1431-4.
- 44) Gissler M, Berg C, Bouvier-Colle MH, Buekens P. Injury deaths, suicides and homicides associated with pregnancy, Finland 1987-2000. *Eur J Public Health.* 2005; 15(5): 459-63.
- 45) Greenglass ER. Therapeutic abortion and its psychological implications: the Canadian experience. *Can Med Assoc J.* 1975; 113(8): 754-7.
- 46) Greer HS, Lal S, Lewis SC, Belsey EM, Beard RW. Psychosocial consequences of therapeutic abortion King's termination study III. *Br J Psychiatry* 1976; 128: 74-9.
- 47) Hamama L, Rauch SA, Sperlich M, Defever E, Seng JS. Previous experience of spontaneous or elective abortion and risk for posttraumatic stress and depression during subsequent pregnancy *Depress Anxiety* 2010; 27(8): 699-707.
- 48) Hamark B, Uddenberg N, Forssman L. The influence of social class on parity and psychological reactions in women coming for induced abortion. *Acta Obstet Gynecol Scand.* 1995; 74(4): 302-6.
- 49) Hemmerling A, Siedentopf F, Kentenich H. Emotional impact and acceptability of medical abortion with mifepristone: a German experience. *J Psychosom Obstet Gynaecol.* 2005; 26(1): 23-31.
- 50) Henshaw R, Naji S, Russell I, Templeton A. Psychological responses following medical abortion (using mifepristone and



- gemeprost) and surgical vacuum aspiration. A patient-centered, partially randomised prospective study. *Acta Obstet Gynecol Scand.* 1994; 73(10): 812-8.
- 51) Hill RP, Patterson MJ, Maloy K. Women and abortion: a phenomenological analysis. *Adv Consum Res.* 1994; 21: 13-4.
- 52) Hittner, A. Feelings of Well-Being Before and After Abortion. *American Mental Health Counselors Association Journal* 1987; 98-104.
- 53) Jacobs D, Garcia CR, Rickels K, Preucel RW. A prospective study on the psychological effects of therapeutic abortion. *Compr Psychiatry.* 1974; 15(5): 423-34.
- 54) Kaltreider NB, Goldsmith S, Margolis AJ. The impact of midtrimester abortion techniques on patients and staff. *Am J Obstet Gynecol.* 1979; 135(2): 235-8.
- 55) Kapor-Stanulovic N. Three phases of the abortion process and its influence on women's mental health. *Am J Public Health.* 1972; 62(7): 906-7.
- 56) Kero A, Lalos A. Ambivalence-a logical response to legal abortion: a prospective study among women and men. *J Psychosom Obstet Gynaecol.* 2000; 21(2): 81-91.
- 57) Kero A, Högberg U, Lalos A. Wellbeing and mental growth-long-term effects of legal abortion. *Soc Sci Med.* 2004; 58(12): 2559-69.
- 58) Lask B. Short-term psychiatric sequelae to therapeutic termination of pregnancy. *Br J Psychiatry.* 1975; 126: 173-7.
- 59) Lauzon P, Roger-Achim D, Achim A, Boyer R. Emotional distress among couples involved in first-trimester induced abortions. *Can Fam Physician.* 2000; 46: 2033-40.
- 60) Lazarus A. Psychiatric Sequelae of Legalized Elective First Trimester Abortion. *Journal of Psychosomatic Ob&Gyn* 1985; 4: 141-50.
- 61) Lewis CC. A comparison of minors' and adults' pregnancy decisions. *Am J Orthopsychiatry.* 1980; 50(3): 446-53.
- 62) Linares LO, Leadbeater BJ, Jaffe L, Kato PM, Diaz A. Predictors of repeat pregnancy outcome among black and Puerto Rican adolescent mothers. *J Dev Behav Pediatr.* 1992; 13(2): 89-94.

- 63) Lowenstein L, Deutch M, Gruberg R, Solt I, Yagil Y, Nevo O, Bloch M. Psychological distress symptoms in women undergoing medical vs. surgical termination of pregnancy *Gen Hosp Psychiatry* 2006; 28(1): 43-7.
- 64) Lydon J, Dunkel-Schetter C, Cohan CL, Pierce T. Pregnancy decision making as a significant life event: a commitment approach. *J Pers Soc Psychol.* 1996; 71(1): 141-51.
- 65) Major B, Cozzarelli C, Cooper ML, Zubek J, Richards C, Wilhite M, Gramzow RH. Psychological responses of women after first-trimester abortion. *Arch Gen Psychiatry.* 2000; 57(8): 777-84.
- 66) Major B, Cozzarelli C, Sciacchitano AM, Cooper ML, Testa M, Mueller PM. Perceived social support, self-efficacy, and adjustment to abortion. *J Pers Soc Psychol.* 1990; 59(3): 452-63.
- 67) Major B, Gramzow RH. Abortion as stigma: cognitive and emotional implications of concealment. *J Pers Soc Psychol.* 1999; 77(4): 735-45.
- 68) Major B, Mueller P, Hildebrandt K. Attributions, expectations, and coping with abortion. *J Pers Soc Psychol.* 1985; 48(3): 585-99.
- 69) Major B, Richards C, Cooper ML, Cozzarelli C, Zubek J. Personal resilience, cognitive appraisals, and coping: an integrative model of adjustment to abortion. *J Pers Soc Psychol.* 1998; 74(3): 735-52.
- 70) Major B, Zubek JM, Cooper ML, Cozzarelli C, Richards C. Mixed messages: implications of social conflict and social support within close relationships for adjustment to a stressful life event. *J Pers Soc Psychol.* 1997; 72(6): 1349-63.
- 71) Martin CD. Psychological problems of abortion for the unwed teenage girl. *Genet Psychol Monogr.* 1973; 88(1): 23-110.
- 72) Miller WB. An Empirical Study of the Psychological Antecedents and Consequences of Induced Abortion, *Journal of Social Issues* 1992; 48(3): 67-93.
- 73) Moseley DT, Follingstad DR, Harley H, Heckel RV. Psychological factors that predict reaction to abortion *J Clin Psychol.* 1981; 37(2): 276-9.
- 74) Mueller P, Major B.J. Self-blame, self-efficacy, and adjustment to abortion. *Pers Soc Psychol.* 1989; 57(6): 1059-68.

- 75) Mufel N, Speckhard AC, Sivuha S. Predictors of posttraumatic stress disorder following abortion in a former Soviet Union country. *Journal of Prenatal & Perinatal Psychology & Health* 2002; 17(1), pp. 41-61.
- 76) Munk-Olsen T, Laursen TM, Pedersen CB, Lidegaard Ø, Mortensen PB Induced first- trimester abortion and risk of mental disorder. *The New England Journal of Medicine* 2011; 364 (4), pp. 332-9.
- 77) Ney PG, Fung T, Wickett AR, Beaman-Dodd C. The effects of pregnancy loss on women's health. *Soc Sci Med.* 1994; 38(9): 1193-200.
- 78) Niinimäki M, Suhonen S, Mentula M, Hemminki E, Heikinheimo O, Gissler M. Comparison of rates of adverse events in adolescent and adult women undergoing medical abortion: population register based study. *BMJ* 2011; Vol. 342, pp. d2111.
- 79) Osler M, David HP, Morgall JM. Multiple induced abortions: Danish experience. *Patient Educ Couns.* 1997; 31(1): 83-9.
- 80) Østbye T, Wenghofer EF, Woodward CA, Gold G, Craighead J. Health services utilization after induced abortions in Ontario: a comparison between community clinics and hospitals. *American Journal of Medical Quality* 2001; 16(3), pp. 99-106.
- 81) Payne EC, Kravitz AR, Notman MT, Anderson JV. Outcome following therapeutic abortion. *Arch Gen Psychiatry* 1976; 33(6): 725-33.
- 82) Pedersen W. Abortion and depression: a population-based longitudinal study of young women. *Scand J Public Health* 2008; 36(4): 424-8.
- 83) Pedersen W. Childbirth, abortion and subsequent substance use in young women: a population-based longitudinal study *Addiction* 2007; 102(12): 1971-8.
- 84) Peppers LG. Grief and Elective Abortion: Breaking the Emotional Bond? *Omega: Journal of Death and Dying*, v18 n1 p1-12 1987-88.
- 85) Perez-Reyes MG, Falk R. Follow-up after therapeutic abortion in early adolescence. *Arch Gen Psychiatry* 1973; 28(1): 120-6.
- 86) Pope LM, Adler NE, Tschann JM. Postabortion psychological

- adjustment: are minors at increased risk? *J Adolesc Health* 2001; 29(1): 2-11.
- 87) Prommanart N, Phatharayuttawat S, Boriboonhirunsarn D, Sunsaneevithayakul P. J Maternal grief after abortion and related factors. *Med Assoc Thai*. 2004; 87(11): 1275-80.
- 88) Quinton WJ, Major B, Richards C. Adolescents and adjustment to abortion: are minors at greater risk? *Psychol Public Policy Law*. 2001; 7(3): 491-514.
- 89) Reardon DC, Cougle JR. Depression and unintended pregnancy in the National Longitudinal Survey of Youth: a cohort study. *BMJ* 2002; 324(7330): 151-2.
- 90) Reardon DC, Ney PG, Scheuren F, Cougle J, Coleman PK, Strahan TW. Deaths associated with pregnancy outcome: a record linkage study of low income women. *South Med J*. 2002; 95(8): 834-41.
- 91) Remennick L, Segal R. Socio-cultural context and women's experiences of abortion: Israeli women and Russian immigrants compared. *Culture, Health & Sexuality* 2001; 3(1), pp. 49-66.
- 92) Robbins JM, DeLamater JD. Support from significant others and loneliness following induced abortion. *Soc Psychiatry* 1985; 20(2): 92-9.
- 93) Rue VM; Coleman PK; Rue JJ; Reardon DC. Induced abortion and traumatic stress: a preliminary comparison of American and Russian women. *Medical Science Monitor* 2004; 10(10), pp. SR5-16.
- 94) Russo NF, Dabul AJ. The relationship of abortion to well-being: do race and religion make a difference? *Prof Psychol Res Pr*. 1997; 28(1): 23-31.
- 95) Russo NF, Zierk KL. Abortion, childbearing, and women's well-being. *Professional Psychology: Research and Practice* 1992; 23(4), 269-280.
- 96) Shusterman LR. Predicting the psychological consequences of abortion. *Social Science and Medicine* 1979; 13A(6): 683-9.
- 97) Slade P, Heke S, Fletcher J, Stewart P. Termination of pregnancy: patients' perceptions of care. *J Fam Plann Reprod Health Care*. 2001; 27(2): 72-7.

- 98) Sit D, Rothschild AJ, Creinin MD, Hanusa BH, Wisner KL. Psychiatric outcomes following medical and surgical abortion. *Hum Reprod.* 2007; 22(3): 878-84.
- 99) Söderberg H, Andersson C, Janzon L, Sjöberg NO. Selection bias in a study on how women experienced induced abortion. *Eur J Obstet Gynecol Reprod Biol.* 1998; 77(1): 67-70.
- 100) Söderberg H, Janzon L, Sjöberg NO. Emotional distress following induced abortion: a study of its incidence and determinants among abortees in Malmö, Sweden. *Eur J Obstet Gynecol Reprod Biol.* 1998; 79(2): 173-8.
- 101) Steinberg JR, Becker D, Henderson JT. Does the outcome of a first pregnancy predict depression, suicidal ideation, or lower self-esteem? Data from the National Comorbidity Survey. *Am J Orthopsychiatry.* 2011; 81(2): 193-201.
- 102) Steinberg JR, Finer LB. Examining the association of abortion history and current mental health: A reanalysis of the National Comorbidity Survey using a common-risk-factors model. *Soc Sci Med.* 2011; 72(1): 72-82.
- 103) Steinberg JR, Russo NF. Abortion and anxiety: what's the relationship? *Soc Sci Med.* 2008; 67(2): 238-52.
- 104) Suliman S, Ericksen T, Labuschgne P, de Wit R, Stein DJ, Seedat S. Comparison of pain, cortisol levels, and psychological distress in women undergoing surgical termination of pregnancy under local anaesthesia versus intravenous sedation. *BMC Psychiatry.* 2007 12; 7: 24.
- 105) Talan KH, Kimball CP. Characterization of 100 women psychiatrically evaluated for therapeutic abortion. *Arch Gen Psychiatry* 1972; 26(6): 571-7.
- 106) Tamburrino MB, Franco KN, Campbell NB, Pentz JE, Evans CL, Jurs SG. Postabortion dysphoria and religion. *South Med J.* 1990; 83(7): 736-8.
- 107) Taft AJ, Watson LF. Depression and termination of pregnancy (induced abortion) in a national cohort of young Australian women: the confounding effect of women's experience of violence. *BMC Public Health* 2008; 26(8): 75.
- 108) Teichman Y, Shenhar S, Segal S. Emotional distress in Israeli

- women before and after abortion. *Am J Orthopsychiatry* 1993; 63(2): 277-88.
- 109) Thomas T, Tori CD. Sequelae of abortion and relinquishment of child custody among women with major psychiatric disorders. *Psychol Rep.* 1999; 84(3 Pt 1): 773-90.
- 110) Törnblom M, Ingelhammar E, Lilja H, Möller A, Svanberg Repeat abortion: a comparative study. *BJ Psychosom Obstet Gynaecol.* 1996; 17(4): 208-14.
- 111) Urquhart DR Templeton AA. Psychiatric morbidity and acceptability following medical and surgical methods of induced abortion *British Journal of Obstetrics & Gynaecology*; 1991, 98(4), p. 396.
- 112) van Emmerik AA, Kamphuis JH, Emmelkamp PM. *Clin Psychol Psychother.* 2008; 15(6): 378-85.
- 113) Wallerstein JS, Kurtz P, Bar-Din M. Psychosocial sequelae of therapeutic abortion in young unmarried women. *Arch Gen Psychiatry.* 1972; 27(6): 828-32.
- 114) Warren JT, Harvey SM, Henderson JT. Do depression and low self-esteem follow abortion among adolescents? Evidence from a national study. *Perspect Sex Reprod Health.* 2010; 42(4): 230-5.
- 115) Wiebe ER; Adams LC. Women's experience of viewing the products of conception after an abortion. *Contraception* 2009; 80(6), pp. 575-7.
- 116) Wiebe ER, Trouton KJ, Fielding SL, Grant H, Henderson A. Anxieties and attitudes towards abortion in women presenting for medical and surgical abortions. *J Obstet Gynaecol Can.* 2004; 26(10): 881-5.
- 117) Wells N. Pain and distress during abortion *Health Care Women Int.* 1991; 12(3): 293-302.
- 118) Williams GB. Short-term grief after an elective abortion. *J Obstet Gynecol Neonatal Nurs.* 2001; 30(2): 174-83.
- 119) Yilmaz N, Kanat-Pektas M, Kilic S, Gulerman C. *J Matern Fetal Neonatal Med.* 2010; 23(6): 541-4. Medical or surgical abortion and psychiatric outcomes.

## REFERENCES

- Allanson, S., & Astbury, J. (1995). The abortion decision: Reasons and ambivalence. *J Psychosom Obstet Gynaecol*, 16, 123-136.
- Major, B. *et al.* (2008). Report of the APA Task Force on Mental Health and Abortion, Washington, DC: American Psychological Association.
- Baker, A. (1995). Abortion and Options Counseling. Hope Clinic, Granite City: Illinois. Baker, A., Beresford, T., Halvorson-Boyd, G., & Garrity, J. (1999). Informed consent, Counseling, and patient preparation. In Paul, M. *et al.* (eds). *A Clinician's Guide to Medical and Surgical Abortion*. New York: Churchill Livingstone (National Abortion Federation).
- Barnett, W., Freudenberg, N., Wille, R. (1992). Partnership after induced abortion: A prospective controlled study. *Arch Sex Behav* 1992; 2: 443-455.
- Barr, P., Cacciatore, J. (2007-08). Problematic emotions and maternal grief. *Omega Journal of Death and Dying*, 56(4), 329-346.
- Benedict, M.I., White, R.B., & Cornely, D.A. (1985). Maternal perinatal risk factors and child abuse. *Child Abuse and Neglect*, 9, 217-224.
- Bracken, M.B., & Kasi, S. (1975). First and repeat abortions: A study of decision-making and delay. *J Biosoc Sci*, 7: 473-491.
- Bianchi-Demicheli, F. *et al.* (2002). Termination of pregnancy and women's sexuality. *Gynecological and Obstetric Investigation*, 53, 48-53.
- Boesen, H.C, Rorbye, C., Norgaard, M., & Nilas, L. (2004). Sexual behavior during the first eight weeks after legal termination of pregnancy. *Acta Obstet Gynecol Scand*, 83: 1189-1192.
- Bradshaw, Z., & Slade P. (2003). The effects of induced abortion on emotional experiences and relationships: A critical review of the literature. *Clinical Psychology Review*, 23, 929-958.
- Broen, A. *et al.* (2004). Psychological impact on women of miscarriage versus induced abortion: A 2-year follow-up study. *Psychosomatic Medicine*, 66: 265-271.
- Coleman, P.K. (2006). Resolution of unwanted pregnancy during

- adolescence through abortion versus childbirth: Individual and family predictors and psychological consequences. *Journal of Youth and Adolescence*, 35, 903-911.
- Coleman, P.K. (2009) The Psychological Pain of Perinatal Loss and Subsequent Parenting Risks: Could Induced Abortion be more Problematic than Other Forms of Loss? *Current Women's Health Reviews*, 5, 88-99.
- Coleman, P.K. (2011). Abortion and Mental Health: A Quantitative Synthesis and Analysis of Research Published from 1995-2009. *British Journal of Psychiatry*, 199, 180-186.
- Coleman, P.K., Maxey, D.C., Coyle, C., Rue, V. (2005). Associations between voluntary and involuntary forms of perinatal loss and child maltreatment among low income, single mother s. *Acta Paediatrica*, 94.
- Coleman, P.K., & Nelson, E.S. (1998). The quality of abortion decisions and college students' reports of post-abortion emotional sequelae and abortion attitudes. *Journal of Social and Clinical Psychology*, 17, 425-442.
- Coleman, P.K., Reardon, D.C., & Cogle, J. (2002). The quality of the caregiving environment and child developmental outcomes associated with maternal history of abortion using the NLSY data. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 43, 743-758.
- Coleman, P.K., Reardon, D.C., Strahan, T., & Cogle, J. (2005). The psychology of abortion: A review and suggestions for future research. *Psychology & Health*, 20, 237-271.
- Coleman, P.K., Rue, V., Coyle, C., Maxey, D.C. (2007). Induced abortion and child-directed aggressive behaviors among mothers of children who have been maltreated. *Internet Journal of Pediatric Neonatology*.
- Conklin, M. & O'Connor, B. (1995). Beliefs about the fetus as a moderator of postabortion psychological well-being. *Journal of Social Psychiatry*, 39, 76-81.
- Cogle, J., Reardon, D.C., & Coleman, P.K. (2003). Depression associated with abortion and childbirth: A long-term analysis of the NLSY cohort. *Medical Science Monitor*, 9 (4), CR105-112.



- Cogle, J., Reardon, D.C., & Coleman, P.K. (2005). Generalized anxiety associated with unintended pregnancy: A cohort study of the 1995 National Survey of Family Growth. *Journal of Anxiety Disorders*, 19 (10), 137-142.
- Fergusson, D.M., Horwood, J., & Ridder, E.M. (2006). Abortion in young women and subsequent mental health. *Journal of Child Psychology and Psychiatry*, 47, 16-24.
- Freeman E. (1980). Emotional distress patterns among women having first or repeat abortions. *Obstet Gynecol*, 55: 630-636.
- Fok, W.Y., Siu, S.S.N., Lau, T.K. (2006). Sexual dysfunction after a first trimester induced abortion in a Chinese population. *Eur J Obstet Gynecol*, 126: 255-258.
- Gissler, M., Hemminki, E., & Lonnqvist, J. (1996). Suicides after pregnancy in Finland, 1987-94: Register linkage study. *British Medical Journal*, 313, 1431-1434.
- Gissler, M., *et al.* (2005). Injury deaths, suicides and homicides associated with pregnancy, Finland 1987-2000. *European Journal of Public Health*, 15, 459-463.
- Hern, W. (1990). *Abortion Practice*. Philadelphia: Lippincott.
- Husfeldt, C., Hansen, S. K., Lyngberg, A., Noddebo, M., & Pettersson, B. (1995). Ambivalence among women applying for abortion. *Acta Obstetricia et Gynecologica Scandinavica*, 74, 813-817.
- Kero, A., Hoegberg, U., Jacobsson, L., & Lalos, A. (2001). Legal abortion: A painful necessity. *Social Science and Medicine*, 53, 1481-1490.
- Lauzon, P., Roger-Achim, D., Achim A, & Boyer, R. (2000). Emotional distress among couples involved in first trimester abortions. *Can Fam Physician*, 46: 2033-2040.
- Major, B., & Cozzarelli, C. (1992). Psychological predictors of adjustment to abortion. *Journal of Social Issues*, 48, 121-142.
- Miller, W.B. (1992). An empirical study of the psychological antecedents and consequences of induced abortion. *J Soc Issues*, 48, 67-93.
- Ney, P.G, Fung, T., & Wickett, A.R. (1993). Relations between induced abortion and child abuse and neglect: Four studies. *Pre and Perinatal Psychology Journal*, 8, 43-63.

- Pedersen, W. (2007). Childbirth, abortion and subsequent substance use in young women: a population-based longitudinal study. *Addiction*, 102 (12), 171-78.
- Pedersen, W. (2008). Abortion and depression: A population-based longitudinal study of young women. *Scandinavian Journal of Public Health*, 36 (4), 424-8.
- Prigerson, H. G., *et al.* (1999). Consensus criteria for traumatic grief. A preliminary empirical test. *British Journal of Psychiatry*. 174, 67-73.
- Reardon, D.C., Coleman, P.K. (2006). Sleep disorders associated with abortion and childbirth: A prospective record-based study. *Sleep*, 29, 105-106.
- Reardon, D.C., Coleman, P.K., & Cogle, J. (2004) Substance use associated with prior history of abortion and unintended birth: A national cross sectional cohort study. *American Journal of Drug and Alcohol Abuse*, 26, 369-383.
- Rees, D.I. & Sabia, J.J. (2007). The relationship between abortion and depression: New evidence from the Fragile Families and Child Wellbeing Study. *Medical Science Monitor*, 13 (10), 430-436.
- Rue, V.M., Coleman, P.K., Rue, J.J., & Reardon, D.C. (2004). Induced abortion and traumatic stress: A preliminary comparison of American and Russian women. *Medical Science Monitor* 10, SR 5-16.
- Smetana, J. & Adler, N. (1979). Understanding the abortion decision: A test of Fishbein's Expectancy Value Model. *Journal of Population, Behavioral, Social, and Environmental Issues*, 24, 338-357.
- Soderberg, H., Janzon, L., & Slosberg, N. (1998). Emotional distress following induced abortion: A study of its incidence and determinants among adoptees in Malmo, Sweden. *European Journal of Obstetrics, Gynecology, and Reproductive Biology*, 79, 173-178.
- Thorp, J., Hartmann, K., & Shadigan, E. (2003). Long-Term Physical and Psychological Health Consequences of Induced Abortion: Review of the Evidence. *Obstetrical and Gynecological Survey*, 58, 67-79.

- Tornboen, M., Ingelhammar, E., Lilja, H., Moller, A., & Svanberg, B. (2004). Evaluation of stated motives for legal abortion. *J Psychosom Obstet Gynaecol*, 15, 27-33.
- Zolese, G., & Blacker C.V.R. (1992). The psychological complications of therapeutic abortion. *British Journal of Psychiatry*, 160, 742-749.



JUSTO AZNAR

Director Institute of Life  
Sciences Catholic University  
of Valencia (Spain)



GERMÁN CERDÁ

Dean of the Faculty of Medicine  
Catholic University  
of Valencia (Spain)

## ABORTION AND WOMEN'S MENTAL HEALTH



## INTRODUCTION

No doubt the alterations in women's mental health after abortion is a topic that sparks lively medical sociological and even anthropological debates. In relation to this we note that there is a large group of authors who claim the existence of such alterations (1, 2, 3, 4, 5), while others claim the contrary (6, 7, 8, 9, 10).

And what might be the reasons for such disparate results?

First, the methodological difficulties of these studies, especially due to confusing factors, not always easy to control adequately (11), such as the heterogeneity of women's groups evaluated in regards to age, race, social status and religious beliefs; the presence of psychological changes or lack thereof, prior to the abortion of; the desire or lack thereof for the pregnancy; whether a woman can rely on her partner for help, or the help of her family, etc.. Consequently, we are of the opinion that the presence of many different confusing factors can decisively influence in the heterogeneity of the obtained results. There also exist technical differences, such as the fact that most of the studies that are done are done in retrospect, because the prospective studies, due to obvious ethical reasons, are difficult to study. To these difficulties we must add fundamental ones, and within these reasons we have the fact that the specialists who emphatically defend the existence of a post abortion syndrome, do it in many cases using data from the patients. These patients arrive seeking psychological help after having aborted, and studies are not performed on the patients who do not demonstrate any psychological alterations, but demonstrate instead a high degree of wellbeing after having had an abortion.

Also be influential on this disparity of results can be the moral criteria that people and institutions use to complete

these “works”. Without a doubt, it is very difficult to talk about a topic such as this one, a topic that has such a heavy ethical weight, without being influenced by these circumstances.

Therefore to raise our study it has seemed most appropriate to evaluate some of the most recent reviews on the topic, those that have appeared to us to be the most relevant, in order to demonstrate that abortion may or may not be a cause of psychological changes in women that have suffered from it, and especially to confirm the possible existence of a post abortion syndrome.

## RESULTS

With this finality we have evaluated four reviews (12, 13, 14, 15) and some of the last works on this topic.

1. The first (12) is that the “Council of Representatives” of the American Psychological Association (APA) was assigned to the “Task Force on Mental Health and Abortion”, which was published in 2008. In this are included all the articles written in English dating back from 1989 that evaluate the mental health of women who have undergone an induced abortion.

The principal objective of this review “was to pick up, examine, and summarize the scientific investigations that were published up until that time, in which there was a relation between abortion and mental health problems in women.” Focusing on the next aspects: a) does abortion cause harm to the mental health of the woman who has aborted? b) what is the prevalence of mental health problems in women in the United States who have aborted? c) what is the relative risk of undergoing secondary mental health problems from abortion, compared to the women who have terminated their pregnancies by other procedures? d) can we predict the psychological changes secondary to abortion?

The principal conclusion to this systematic review is that the relative risk of suffering mental health disorders, after a single legal abortion in the first trimester, which is not desired and not realized for therapeutic reasons, is not higher than the one that can happen to a woman who gives birth by natural means to a pregnancy that is not desired. Even though it is also shown that in some women who have aborted, situations of sadness and pity solitude and even depression and anxiety are detected they estimate that there is not enough existing evidence in order to demonstrate a direct association between abortion and mental health problems, without excluding more confusing factors. Other interesting aspects are that for the first time it was evaluated whether women who have aborted have socio psychological disorders prior to abortion, because in cases where they may exist, they could be predictive of a possible answer to a mental anomaly through the act of abortion. What is confirmed in this review is the existence of mental problems in women who have aborted several times, even though it is thought that there could be previous psychic imbalances that could predispose them to remain pregnant without desiring it, and consequently attempt to terminate these pregnancies by means of abortion.

We conclude that a woman who may have mental health problems prior to aborting could be principally at risk of suffering from psychological disorders after an abortion. Even though these are necessary studies in order to determine the possible relation between abortion and mental health in women, given the diversity and complexity of the circumstances, the estimate is that it would be premature at this moment to come up with conclusions.

2. Parallel to this version there have been five articles published (4, 9, 17, 18, 19) and in our judgment, complement that which is displayed in them. In the first one, Taft and Watson (9) in Australia include in their study 9683 women from the ages of 22 to 27, detecting the existence of association



between abortion and depression, even though they observe women that have had two or more labors, in relation to those who have not had one, which somehow weakens its conclusions on the existence of post-abortion psychological disorders.

In the second, Dingle *et al.* (16), also in Australia, after adjusting different confounding factors, find that women who have had an abortion are prone to smoking and drug use except for the use of marijuana, and are prone to depression and anxiety, when compared to a group of women who have not had an abortion. Although the value of this finding can be diminished when we consider that women who have lost a pregnancy are also prone to smoking and drug use except for the use of marijuana, in comparison to women who have never been pregnant before.

The third one is Fergusson *et al.* (17), and we will evaluate it in more detail further ahead.

The fourth is studied by Pederson *et al.* (4), in Norway, in which the possible association between abortion and depression was evaluated in two groups of women, one under 20 and one until the age of 27, including 40 women who had aborted, 27 that had had a child by natural delivery and 700 that had never been pregnant either in their adolescence or their youth. The authors conclude that there are no differences in the tendency to depression amongst the three groups. Instead, the women who had aborted halfway through the decade of their twenties showed significantly higher rates of depression than women who had never been pregnant, but not more than those who had given birth in the normal manner and in the same time line.

The fifth article is Steinberg and Russo (10), which finds that women who had abortions had no higher incidence of anxiety and other psychological disorders than women who had given birth normally, but instead, in a subsequent analysis, found that women who had abortions themselves repeatedly showed a higher incidence of anxiety than those who had not.

3. The second evaluation review will focus on mental health problems secondary to long-term abortion because only include studies that follow women after abortions of 90 days or more. 700 articles therein are evaluated, of which only 21 have a control group.

The authors conclude that they cannot reliably establish the existence of a link between abortions and mental health problems in women who had abortions, especially if one considers that the higher quality of the evaluated studies discover a lesser association between abortion and mental risk for women who have suffered.

4. In the third review (14), Priscilla Coleman evaluated all the published articles in English between 1995 and 2009, of which she selected for her consideration 22 articles, 15 articles from the U.S and 7 from other countries. These include a total of 877,181 women, distributed in three groups: a) one of healthy women who are not pregnant; b) another of healthy pregnant women who have given birth to a healthy baby; c) and a third that includes 163,821 women who have aborted. This systematic review shows that women who have abortions are 81% more likely to have mental problems than those who did not. Furthermore, the possibility of them having anxiety problems is 34% higher, and by 37% for depression. The possibility of falling into alcoholism is 110% higher, with a 220% higher rate of consuming marijuana. But in our view, the most relevant data provided by this review is that 10% of the women with mental health disorders have aborted prior to the onset of clinical symptoms.

5. The fourth review (15) is the one of the "Academy of Medical Royal Colleges" and of "National Collaborating Centre for Mental Health", published in December 2011. In this comprehensive review, involving twenty working professionals who focus primarily on studies evaluating mental health disorders in women who have had a legal abortion after an unwanted pregnancy. The questions to which

this review seeks to respond are: a) what is the prevalence of mental health problems in women who have had abortions? b) Why is it that the results on abortion and mental health in women who have abortions are so inconclusive? c) are problems of mental health more frequent in women who have aborted than in women who have an unwanted pregnancy and have given birth naturally?

Its main conclusions are a) mental health problems of women in the general population after childbirth or after an abortion are similar, b) unwanted pregnancies that end in childbirth by natural means are associated with increased mental health problems, c) the incidence of mental health problems in women with an unwanted pregnancy who have given birth by natural means is of the same rate as than those who have aborted, d) the greatest predicting factor of the possibility for mental health problems after an abortion is the existence of a prior history of mental disorders, e) the authors seem to confirm the existence of external factors of women who have had abortions that can be associated with the increased incidence of mental health problems secondary to abortion, such as family pressure for women to abort, the negative attitude of society in general towards abortion or negative personal experiences of women in relation to abortion, and f) from a technical point of view, the authors suggest that the meta-analyzes used to assess the possible association of abortion with mental health problems of women are generally of low quality and at risk of bias objectives.

6. Independently of the four systematic reviews evaluated and the previously mentioned works, there are many other works that address the possible relationship between abortion and mental health problems of women who have had abortions, which naturally we cannot refer to here, but if we dwell on two of them: Fergusson (17), for its undoubted importance and Munk-Olsen (18) being as we know, the last major work to be published.

The first (17) is a longitudinal study involving a cohort of 534 women from which 1265 children were born in Christchurch, an urban region of New Zealand, which were followed from birth until they turned 30 years old.

In this study it is found that, as specified in a subsequent work of the same authors (19), 284 women had 686 pregnancies before age 30, with 117 women, 153 abortions; 138 pregnancies were lost naturally in 95 women, 66 infants were born naturally from 52 women who demonstrated adverse reactions, and 329 of 197 women showed no medical problems.

The authors reach the following conclusions (17): a) the induced abortions were associated with increased mental health problems, between 1.86 and 7.08 times higher than women who had not aborted, b) natural abortions were also associated with a modest but apparent increase in mental problems, summed up as 1.76 to 3.30 times higher, c) the births after an unwanted pregnancy or following adverse reactions during pregnancy were associated with a small increased risk of mental problems, except alcoholism, d) the association between mental health problems after a normal pregnancy was weak and inconsistent; e) in women who have aborted, the risk of mental health problems increased by 30% relative to those who have not, and f) furthermore they conclude that mental health disorders attributable to abortion represent between 1.5% and 5.5% of all mental disorders in women.

The second study to which we refer to is that of Munk – Olsen (18). It includes data from the Danish Civil Registration, that includes young women without mental problems during the period from 1995 to 2007, who have had a first-trimester abortion or the birth of a child during this same period of time, assessing whether these women have requested a psychiatric consultation up to 12 months after the abortion. The results show that the incidence of psychiatric consultations per 1000 women/year, in young adult women who had a first abortion was 14.6 before abortion and 15.2 after the abortion. This same

rate among women who had a child after a normal pregnancy was 3.9 before pregnancy and 6.7 after delivery. That is, the rate of psychiatric consultations did not differ substantially before and after an abortion, but was significantly increased compared to women who had a normal delivery.

In this latter work (18), we focus on some critical comments by Priscilla Coleman (20), in which it is noted that the incidence of psychiatric problems present in a pre-abortion visit is excessively high, around three times what the normal population has. Coleman suggests that this increase may be because the woman was already immersed in the state of anxiety that can occur in the days before abortion after an unwanted pregnancy. Moreover, an important fact for her is that mental health problems are significantly higher after abortion (15.2%) than after a normal delivery (6.7%).

Also, an important aspect in our judgment, which is not taken into consideration in the study of Munk – Olsen (18), is that the possible link between abortion and mental health problems is not evaluated in women who have had repeated abortions, which are the ones that have most post-abortion mental health problems. It is also an objective limitation of this study to only follow women for one year after the normal abortion or birth when there is evidence that many psychiatric problems associated with abortion do not appear until several years after a woman has had an abortion. Consequently the study of Munk – Olsen (18) should be evaluated taking into account the above limitations.

## DISCUSSION

Having evaluated the possible relationship between abortion and mental health disorders in women, the large number of existing works on the subject stand out, although we believe

many of them are of poor quality and show significant methodological limitations.

The first conclusion that we can draw is that one cannot say that there is a post-abortion syndrome, but an increased amount of psychological problems can be detected in women who have had abortions especially if they have had repeated abortions, although other studies conclude that aborting has meant relief for women who have had abortions. The many conflicting results, in our view, may be due to the existence of confounding factors that have not always been adequately evaluated. Among them could be considered: a) the heterogeneity of women's groups being compared, b) biases the subjects may have, c) inadequate assessments of the medical history of women, especially in reference to reproductive and mental health circumstances, d) the different contexts in which abortion has been performed, and e) even possible biases in the interpretation of the data, especially conditioned by the ideological characteristics of individuals or institutions who have completed the study.

Based on the foregoing, we are of the opinion that at the present time the link between abortion and mental health of women who have had abortions must be determined objectively as possible, especially by promoting studies in which factors of confusion are adequately controlled. This kind of work entails stumbling on unavoidable ethical difficulties.

But in addition to all of the above, it seems of interest to state the following. For some the existence of a post-abortion syndrome is defended (21), by others it is contested (22, 23). Before proceeding we think it is necessary to specify a medical concept, what is understood by "syndrome" in medicine? It is defined as the set of signs and symptoms that make up a disease. Judging from this definition we do not see the existence of a post-abortion syndrome, we do not believe you can show that after the abortion there is a set of symptoms and signs that constitute a condition for

women who have aborted, but what we think is that there are many women who have had abortions and mental health disorders are for them a negative consequence. That is, not post-abortion syndrome, but rather psychological disorders.

In our view, one of the most influentially decisive facts in assessing the existence of a link between abortion and issues of mental health in women who have had abortions is the woman's perception of what abortion means. Guilt, as a possible cause of mental health disorders in women who have aborted, has been considered by some authors. Indeed, Fergusson *et al.* (24), say that among women with psychological problems after abortion, some showed high guilt when they had aborted; this seems to us a point of interest – to assess the possible negative psychological side effects after the abortion. The perception that women can have of the abortion that has ended the life of a human being, in this case her child, we believe may be an important factor, if not a decisive one, to trigger psychological disorders that can occur subsequently. This can be guaranteed not only because not all women have this type of psychological disorder, but in some cases some show a sense of relief after they have aborted (25). This contrast of side effects, psychological syndromes or a sense of relief, we believe should be fundamentally conditioned by the ethical sense perception that a woman has of what she has done.

## CONCLUSIONS

1) In order to define a possible link between abortion and mental health in women, it does not seem appropriate to use personal data from women who have aborted, derived from direct care from specialists.

2) In order to be objective regarding this problem, we believe that we must exclusively use data that has been

corroborated in medical literature, because if we do not carry it through in this manner, we will always encounter arguments that are for or against the existence of post-abortion psychological disorders.

3) We believe that the feeling of guilt that the woman can have for having aborted can be an important factor, if not a decisive factor, in the woman undergoing psychological disorders after aborting.

4) In short, our opinion is that we cannot affirm that post-abortion syndrome exists, but we can affirm that through aborting, many women present objective psychological disorders.

## REFERENCES

1. Reardon DC, Cougle JR.  
Depression and unintended pregnancy in the National Longitudinal Survey of Youth: a cohort study.  
British Medical Journal 2002; 324:151-152.
2. Broen AN, Moum T, Bodker AS *et al.*  
The course of mental health after miscarriage and induced abortion: a longitudinal, five-year follow-up study.  
BMC Medicine 2005; 3:18.
3. Fergusson DM, Horwood LJ, Ridder E.  
Abortion in young women and subsequent mental health.  
The Journal of Child Psychology and Psychiatry 2006; 47:16-24.
4. Pedersen W.  
Abortion and depression. A population-based longitudinal study of young women.  
Scandinavian Journal of Public Health 2008; 36:424-428.
5. Pedersen W.  
Childbirth. Abortion and subsequent substance use in young women: a population-based longitudinal study.  
Addiction 2007; 102:1971-1978.



6. Major B, Cozzarelli C, Cooper ML *et al.*  
Psychological responses of women after first-trimester abortion.  
*Archives of General Psychiatry* 2000; 57:777-784.
7. Quinton WJ, Major B, Richards C.  
Adolescents and adjustment to abortion: are minors at greater risk?  
*Psychology, Public Policy and Law* 2001; 7:491-514.
8. Schmiede S, Russo NF.  
Depression and unwanted first pregnancy: longitudinal cohort study.  
*British Medical Journal* 2005; 331:1303.
9. Taft AJ, Watson LF.  
Depression and termination of pregnancy (induced abortion) in a national cohort of young Australian women: the confounding effect of women's experience of violence.  
*BMC Public Health* 2008; 8:75.
10. Steinberg JR, Russo NF.  
Abortion and anxiety. What's the relationship?  
*Social Science and Medicine* 2008; 67:238-252.
11. Coleman PK, Coyle CT; Shuping M *et al.*  
Induced abortion and anxiety, mood and substance abuse disorders: isolating the effects of abortion in the national comorbidity survey.  
*Journal of Psychiatric Research* 2009; 43:770-776.
12. Council of Representatives of the American Psychological Association (APA). Report on the Task Force on Mental Health and Abortion.  
American Psychological Association. Washington, DC, 2008.
13. Charles VE, Polis CB, Sridhara SK, *et al.*  
Abortion and long-term mental health outcomes: a systematic review of the evidence.  
*Contraception* 2008; 78:436-450.
14. Coleman PK.  
Abortion and mental health: quantitative synthesis and analysis of research published 1995-2009.  
*The British Journal of Psychiatry* 2011; 199:180-186.

15. Induced abortion and mental health. A systematic review of the mental health outcomes of induced abortion, including their prevalence and associated factors.  
Academy of Medical Royal Colleges. National Collaborating Centre for Mental Health. London. December 2011.
16. Dingle K, Alati R, Clavarino A *et al.*  
Pregnancy loss and psychiatric disorders in young women: An Australian birth cohort study.  
British Journal of Psychiatry 2008; 193:455-460.
17. Fergusson DM, Horwood LJ and Boden JM.  
Abortion and mental health disorders: evidence from a 30-year longitudinal study.  
British Journal of Psychiatry 2008; 193:444-451.
18. Munk-Olsen T, Laursen TM, Pedersen CB, *et al.*  
Induced first-trimester abortion and risk of mental disorder.  
New England Journal of Medicine 2011; 364:332-339.
19. Ferguson DM, Horwood LJ, Boden JM.  
Reactions to abortion and subsequent mental health.  
The British Journal of Psychiatry 2009; 195:420-426.
20. Coleman PK.  
There are mayor problems with study showing no link between abortion, mental health problems.  
Life Site News.com. (Accessed on 27-I-2011)
21. Gomez Lavin C, Zapata García R.  
Categorización diagnóstica del síndrome post aborto.  
Actas Españolas de Psiquiatría 2005; 33:267-272.
22. Stotland NL.  
The myth of abortion trauma syndrome.  
Journal of the American Medical Association 1992; 268:2078-2079.
23. The American Psychological Association and the American Psychiatric Association do not recognize the syndrome post abortion as an actual diagnosis or condition, and it is not included in the Diagnostic and Statistical Manual of Mental Disorders DSM.IV.TR or in the ICD-10 list of psychiatric conditions. Wikipedia. Abortion and mental health 2012.

24. Fergusson DM, Horwood LJ, Boden JM.  
Abortion and mental health  
The British Journal of Psychiatry 2009; 194:377-378.
25. Templeton A, Grimes DA.  
A request for abortion  
New England Journal of Medicine  
2011; 365:2198-2204.





Finito di stampare nel mese di febbraio 2014  
dallo Stabilimento Tipografico «Pliniana»  
Viale F. Nardi, 12 – 06016 Selci-Lama (PG)  
[st.pliniana@libero.it](mailto:st.pliniana@libero.it)









