II. FAMILY PLANNING COUNSELING AND SERVICE DELIVERY, STI EVALUATION AND TREATMENT, AND HIV COUNSELING AND/OR REFERRAL FOR TESTING

II. FAMILY PLANNING COUNSELING AND SERVICE DELIVERY, STI EVALUATION AND TREATMENT, HIV COUNSELING AND/OR REFERRAL FOR HIV TESTING

Counseling for PAC patients must be comprehensive and address the many issues related to health (including birth spacing information) and family planning methods and available family planning services, STI evaluation and treatment, and HIV counseling and testing. Women, for example, who have experienced an unintended pregnancy need to know that approximately half of all women ovulate within two to three weeks after a first trimester pregnancy has ended and, therefore, must be given information on contraception (Cunningham et al., 1997 cited in Thorstensen, 2000 and Vorherr, 1973 cited in Ortayli et al., 2001).

Family planning counseling must also provide women with information on the advantages of family planning, as well as method choices and the health implications of these selections including side effects, risks, and failure rates. Unfortunately, these important components of counseling are often excluded.

A study in Bolivia in 1993, which interviewed 30 PAC patients in four hospitals, found that women were often given IUDs without being informed of any other contraceptive method choices (Rance, 1994).

Furthermore, patients need to be informed of ways to avert post-procedure infection and when it may be safe to resume sexual activity.. Women need to know what to do if complications do arise; how to recognize complications; and how, when, and where to seek care. In addition, women need to know behaviors that put them at risk for sexually transmitted infections and HIV/AIDS. Women who have experienced a miscarriage and wish to have a subsequent pregnancy also need to know the optimum time for planning a successive pregnancy.

II.A. PRE, DURING, AND POST-TREATMENT COUNSELING

Summary of Evidence	Supporting Research	Gray Type
Information and counseling on PAC treatment costs, follow-up home care, and effect on future pregnancies influences a woman's satisfaction with PAC. ☑ Needs more research: Three studies.	A study in Burkina Faso found that patient satisfaction was significantly higher after improved PAC services, including counseling on treatment, and follow-up were introduced. Nearly all patients stated that providers answered their questions readily and gave clear explanations and instructions. Prior to the intervention, 88 percent of patients said they were satisfied with the care they received, while 94 percent said they were satisfied after the intervention (Ministry of Health, Burkina Faso, 1998). See Appendix 1, Ministry of Health, Burkina Faso, for a description of the intervention.	III
	A study in Bolivia in 1993 that interviewed 30 PAC patients in four hospitals found that many wanted but were not given information on their condition, the treatment that would be given, and the financial costs the woman would incur. A 27 year old woman interviewed shortly after hospital admission for hemorrhage from incomplete abortion stated, "I don't know what they will do, I don't know, I don't even have any idea. But I'm frightened" (Rance, 1994: 4).	IV
	A study in Canada from 1997–1998 with 50 women who had spontaneous abortions without surgery found that "receiving adequate information was extremely important for these women. They wanted to know how much bleeding and pain to expect, how to care for themselves, whether to save the tissue, how long symptoms would last, and the possible effect on future pregnancies. They wanted reassurance that they were healthy" and to know their options for treatment (Wiebe and Jannsen, 1999: 2357). One woman reported, "My doctor wanted to let things happen naturally, but that can take up to two months….I probably like many others wanted it finished" (Wiebe and Jannsen, 1999: 2358). Women who felt they lack sufficient information reported more intense pain (Wiebe and Jannsen, 1999).	IV

II.A. PRE, DURING, AND POST-TREATMENT COUNSELING

Summary of Evidence	Supporting Research	Gray Type
Offering family planning counseling and methods at the same location where the woman receives emergency treatment can increase the proportion of women leaving with a contraceptive method. ☑ Strong evidence: Four studies.	A study in Kenya compared three different models of PAC care: 1) contraceptive options were provided on the gynecological ward by the same staff who provided PAC care; 2) contraceptive options were provided on the gynecological ward by family planning counselors; and 3) contraceptive options were provided off-site at a family planning clinic by family planning counselors. Model 1 was most effective in increasing use of family planning, with 92 percent of women receiving counseling and 82 percent of PAC patients leaving the hospital with a method compared to Model 2 sites, in which 62 percent received counseling and 63 percent left the hospital with a method and Model 3 sites, in which 54 percent received counseling and 75 percent left the hospital with a method. The intervention consisted of training PAC staff in MVA and postabortion family planning, provision of equipment and supplies, and reorganization of services. Four hundred and eighty-one women were interviewed prior to the intervention and 319 women were interviewed post-intervention. Prior to the intervention, only 7 percent of women had received family planning counseling, 22 percent had decided to use family planning, and only 3 percent received a contraceptive method. In the post-intervention period, 68 percent of women received family planning counseling, 69 percent decided to begin using contraceptives, and of these, almost 70 percent received a method prior to leaving the hospital (Solo et al., 1999a in Huntington and Piet-Pelon, editors, 1999; Solo et al., 1998 cited in Billings, 1998).	III
	A study in Burkina Faso found that providing family planning counseling and services in the same place as PAC emergency treatment increased patients' knowledge and intent to use family planning. Before the intervention, women treated for abortion complications were referred to an off-site family planning clinic for services. Only 30 percent of women received counseling about family planning, and although 64 percent said they intended to use contraception, only 57 percent received a method. As a result of the integrated family planning counseling and services introduced in the intervention, 94 percent of women reported being counseled on family planning. Eighty-two percent of women said they intended to practice family planning, and 83 percent left the hospital with a method. (Ministry of Health, Burkina Faso, 1998). See Appendix I, Ministry of Health, Burkina Faso, 1998, for a description of the intervention.	III

II.A. PRE, DURING, AND POST-TREATMENT COUNSELING

Summary of Evidence	Supporting Research	Gray Type
Offering family planning counseling and methods at the same location where the woman receives emergency treatment can increase the proportion of women leaving with a contraceptive method. ☑ Strong evidence: Four studies.	A 1996–1998 intervention study in a referral hospital in Lima, Peru, tested a model where all PAC services were provided in an obstetrics and gynecology emergency room on an outpatient basis. Doctors were trained in MVA and improved clinical practices, counseling on medical care and family planning, and provision of contraceptive methods. The original study utilized a pre-post intervention design with no control group. A follow-up assessment of the same outcomes was conducted in 2000–2002 to assess the sustainability of the intervention without outside assistance. Prior to the study, women receiving emergency treatment were referred to another location for family planning services. At baseline, 38 percent of patients were told they could become pregnant again almost immediately, 18 percent received family planning counseling and only 2 percent left with a method. In the immediate post-intervention period, the proportions of women receiving information about their return to fertility and family planning rose to 65 percent and 78 percent, with 59 percent leaving with a contraceptive. Three years later, 72 percent were informed of their return to fertility. There were also significant increases in women receiving counseling (89 percent) and contraceptive methods (87 percent). Among those not receiving a method, 48 percent of patients in 1997 and 18.8 percent of patients in 2000 were given a follow-up family planning appointment (Benson and Huapaya, 2002). See Appendix I, Bensen and Huapaya, 2002, Peru, for a description of the intervention.	III
	A descriptive study of 2,050 women from September to December of 1992 at Harare and Parirenyatwa Hospitals in Zimbabwe showed that by providing family counseling and services at the same site where women with abortion complications were treated, 97 percent were discharged with a contraceptive method they had chosen. Prior to providing on-site family counseling, only 34 percent of women reported going home with some form of contraceptive method (Mahomed et al., 1997).	III

II.A. PRE, DURING, AND POST-TREATMENT COUNSELING

Summary of Evidence	Supporting Research	Gray Type
Counseling patients in family planning methods will increase family planning uptake. ☑ Strong evidence: Three studies.	An intervention study from 1997–1998 in Senegal introducing integrated postabortion services found that the proportion of women reporting being counseled on family planning increased from 18 percent to 34 percent after training. Of those counseled, 56 percent left with a method of contraception before the intervention (10 percent of all patients), while 76 percent of women counseled (26 percent of all patients) left the hospital with a contraceptive method after the intervention. Training also increased the proportion of providers who offered family planning services. Before the intervention, 31 percent of providers interviewed reported counseling women on family planning and 18 percent reported providing women with contraceptive methods. After the intervention, 51 percent of providers reported counseling women and 40 percent said they gave women contraceptive methods (Centre de Formation et de Recherche en Santé de la Reproduction and Clinique Gynécologique et Obstétricale CHU A. le Dantec, 1998). See Appendix I, Centre de Formation, 2003, Senegal, for a description of the intervention.	III
	A study conducted in 1998 of 191 postabortion care patients in a hospital in Mexico City, Mexico, of the Mexican Institute of Social Security found that all of the 75 PAC patients who accepted contraception were offered contraceptive information; but among the 116 PAC patients who did not accept contraception, only 26.7 percent of them received contraceptive information. For the 75 PAC patients who accepted contraception, 75 percent considered the contraceptive information provided satisfactory; all the 116 PAC patients who did not accept contraception found that the contraceptive information provided was inadequate. The study administered questionnaires to two groups of women who presented for PAC: those who accepted contraceptives and those who did not (García-Hernández et al., 2000).	III

II.A. PRE, DURING, AND POST-TREATMENT COUNSELING

Summary of Evidence	Supporting Research	Gray Type
Counseling patients in family planning methods will increase family planning uptake. ☑ Strong evidence: Three studies.	A study at Temeke Municipal Hospital in Dar es Salaam from January 2001 through July 2002 assessed the need for postabortion contraception among 788 women who had abortions. Women received counseling on the risk of contracting STDs/HIV and contraception methods. Following counseling, 708 of the 788 women left the hospital with a contraception method of her choice. A follow up study of 526 women of these 708 who left the hospital with a contraception method revealed that 86 percent of these women were still using contraception 3–6 months after receiving postabortion counseling (Rasch et al., 2004).	III
Women who experience either induced or spontaneous abortions and desire another pregnancy should wait at least six months before becoming pregnant again to reduce the incidence of maternal anemia, premature rupture of membranes, low birth weight and preterm delivery in a successive pregnancy. ☑ Strong evidence: One study.	A retrospective cross-sectional study of 258,108 women between 1985 and 2002 in Latin America found those delivering singleton infants less than 6 months after a previous abortion had a greater risk for adverse maternal and perinatal outcomes than women delivering infants 18 to 23 months after a previous abortion. The post-abortion interval, defined as the time elapsed between the day of the abortion and the first day of the first menstrual period for the index pregnancy, was significantly related to adverse outcomes such as maternal anemia, premature rupture of membranes, low birth weight (less than 2500g), very low birth weight (less than 1500g), preterm delivery (less than 37-week gestation), and very preterm delivery (less than 32-week gestation). No distinction was made between women who had spontaneous and induced abortions in this study (Condé-Agudelo et al., 2005).	III

II.A. PRE, DURING, AND POST-TREATMENT COUNSELING

Summary of Evidence	Supporting Research	Gray Type
Family planning counseling and services reduce repeat abortions. ☑ Strong evidence: One study.	A pilot program to improve the provision of family planning to PAC patients to avoid repeat abortions in a single public maternity hospital in Turkey has been successfully expanded into 10 public facilities throughout Turkey and then into 12 private sector and two public sector hospitals. Early evidence that "women were relying on repeat abortion to control their fertility made it clear that the Turkish family planning program, despite its successes, was unable to meet the contraceptive needs of its clients" and, therefore, became the impetus for providing family planning to PAC patients (Senlet et al., 2001: 91). The Turkish Ministry of Health initiated a pilot postabortion family planning program from 1991–1993 to link these services in a selected facility where large numbers of abortions were provided. The Turkish Ministry of Health set up structural links between abortion and family planning services; overcame staff resistance to providing PAC family planning services by conducting both a study on the safety of IUD insertions following PAC (which showed no increased risk of infection or expulsion) and conducting a series of seminars to reeducate staff on contraceptive technology; and provided accurate information to PAC patients about family planning. For example, "when women first came to the clinic to verify their pregnancy and to request an abortion, they attended a group session in which each contraceptive method was explained in detail" (Senlet et al., 2001: 91). At their appointment for an abortion, women met with a family planning counselor for a private counseling session. Contraceptive method availability was improved. As a result of the pilot program, use of a modern contraceptive among abortion clients increased from 65 percent in 1991 to 97 percent in 1992. The pilot project resulted in more effective contraceptive use, which led to the "reduction of repeat abortions." From 1992–1998, the same strategy from the pilot project was expanded to 10 more large public hospitals. These interventions then served as prototypes in the curriculum of Turkey's MCH program, "Postabortion Family Planning," which included modules from EngenderHealth. A questionnaire sent in 1999 to these 10 sites found postabortion family planning acceptance rates of over 90 percent. "Perhaps this initiative's most striking aspect is its ongoing self-sustainability. External assistance to all imitative hospitals ended several years before 1998 and, in most cases, involved technical assistance for a few months only" (Senlet et al., 2001: 92). In 1998 in the 14 additional hospitals, only 37 percent of PAC patients accepted a method of family planning; by 2001, this was increased to 72 percent. Abortion has been legal in Turkey since 1983 (Senlet et al., 2001).	III

II.A. PRE, DURING, AND POST-TREATMENT COUNSELING

Summary of Evidence	Supporting Research	Gray Type
PAC delivery models that provide on-site FP counseling and contraceptives can result in: **(a)women using highly effective contraceptives;** **(b) fewer unplanned pregnancies; and** **(c)reduced repeat abortions one year later.** ☑ Strong evidence: One study.	A longitudinal study, carried out between 1996 and 1998, that compared results from the two largest public hospitals in Zimbabwe where the intervention site provided on-site counseling and access to free contraceptives found that significantly more women who had access to contraceptive services on-site following postabortion care used highly effective methods of contraception (i.e., oral contraceptives, Depo-Provera, the IUD, implants, barrier methods, and sterilization) and had fewer unplanned pregnancies and fewer repeat abortions. The proportion of women choosing a modern method of contraception immediately following postabortion care was 96 percent at the intervention site compared to 5 percent at the control site. There were twice as many unplanned pregnancies among patients at the control site during the year-long follow-up compared to the intervention site (96 compared to 42). A higher percentage of women in the control site than in the intervention site had a repeat abortion during the one-year follow-up (5.3 percent compared to 2.5 percent). Only women who stated a desire to postpone their next pregnancy for at least two years from the time of receiving postabortion care and who kept at least one-follow up appointment were included in the study. Following their treatment for incomplete abortion, 271 women at the intervention site were provided free, on-site family planning services prior to discharge. These services included information and counseling about short- and long-term fertility control and the option to receive condoms, oral contraceptives, or the injectable Depo-Provera prior to leaving the hospital. Clients who desired implants, IUDs, female sterilization, or other methods were given referral appointments. At the control site, the usual discharge procedures were followed with no special attention paid to the 258 women's postabortion contraceptive needs, although contraceptives were available for a nominal fee in the nearby maternity ward, a family planning clinic adjacent to the maternity ward, and other municipal clinics. Women at both sites were followed for one year, with study participants asked to return for follow-up interviews every three months. At follow-up, women at the control site were provided with information about where they could obtain contraceptives, but only if they asked. Women in the intervention site were provided with free contraceptive refills or different contraceptives if they were not satisfied with their original choice. Approximately one-fifth of women in the intervention site received home visits when they did not present for follow up visits. Women were tested for pregnancy and positive tests were given a second test to reconfirm the results (Johnson et al., 2002).	III

II.A. PRE, DURING, AND POST-TREATMENT COUNSELING

Summary of Evidence	Supporting Research	Gray Type
Providing FP counseling can increase the proportion of women agreeing to use a contraceptive method before leaving the health facility that provided PAC. ☑ Strong evidence: One study.	A study in Malawi from 1995–1996 found that of 464 PAC patients counseled for contraception, 80.4 percent agreed to use contraceptives after the intervention, as compared to 4.1 percent prior to the intervention. The intervention consisted of asking PAC patients if she would like to receive further counseling, information, and education on contraception. Those who agreed were counseled individually after the emergency care, when they had rested adequately, but before discharge. Each patient was given information on available contraceptives, how they are used and how they work, who can use which method, and their side effects (Lema and Mpanga, 2000).	IV
Improving counseling and clinical skills can increase the proportion of women being discharged with a contraceptive method and an expanded method mix. ☑ Strong evidence: One study.	A 2001 operations research study to expand postpartum and postabortion family planning in five hospitals in Honduras found that improving counseling and clinical skills led to an increase in the proportion of women being discharged with a contraceptive method and to an expansion of the method mix to a greater use of temporary methods, in particular injectables. On average, postabortion women surveyed were slightly older, with a higher number of pregnancies, and more likely to be single than postpartum women. Approximately one-quarter of women receiving postabortion care said they wanted to become pregnant when they did, indicating they probably experienced a spontaneous abortion and might want to become pregnant again. However, the only contraceptive method immediately available to women before the intervention was voluntary surgical contraception (VSC), which was selected by 13 percent of postabortion women. The midterm evaluation showed a movement toward temporary methods; only 5 percent of contraceptive acceptors (34 percent of postabortion women) received VSC. The rest were discharged with injectables (60 percent), IUDs (25 percent), or oral contraceptives (10 percent). After the intervention, 54 percent of patients were discharged with a method. Most women chose injectables (79 percent) or oral contraceptives (11 percent), with the remainder choosing condoms, IUDs or VSC. (It is worth noting that (continued…)	III

II.A. PRE, DURING, AND POST-TREATMENT COUNSELING

Summary of Evidence	Supporting Research	Gray Type
Improving counseling and clinical skills can increase the proportion of women being discharged with a contraceptive method and an expanded method mix. ☑ Strong evidence: One study.	(continued…) all 21 percent of women who reported wanting a method but not receiving it wanted IUDs, or VSC, but services could not be provided before they were discharged). This study was a follow-on to a 1996–1999 quasi-experimental, pre- and post-intervention operations research study in Hospital Escuela, the largest hospital in Honduras, that tested an intervention to improve postpartum and postabortion ("post-obstetric event") family planning counseling, provision of methods, and intent to use among women (Medina et al., 1998). The 2001 operations research study was conducted in five additional hospitals to help the MOH expand the Hospital Escuela model between 1999 and 2001. A repeated measures pre/post intervention design with no comparison group was used to evaluate the impact of training 164 providers (including physicians, nurses, nurse auxiliaries, social workers, and educators) in counseling, communication, FP methods and informed choice, and training 65 nurses and physicians in providing medical methods (e.g., IUD insertion, mini-laparotomy). Medical equipment and educational materials were provided to the five hospitals and referring health centers, and each hospital held quarterly meetings to discuss most recent data collected through service statistics, patient surveys, and supervision visits. Of the 1,774 women surveyed, 154 had received postabortion care. They received the same FP services from the same providers as the postpartum women, except that they had a more immediate need for contraception to prevent a subsequent pregnancy and were able to use hormonal methods, as they were not breastfeeding. Study sites were chosen purposively; among the seven hospitals with the highest regional maternal mortality nationally, the five hospitals with the most favorable conditions for such an intervention were chosen, and on average, admissions for abortion complications were about 10 percent of deliveries. Sampling consisted of interviewing all women in a two-week period for each of six quarterly surveys (Medina et al., 2001).	III

II.A. PRE, DURING, AND POST-TREATMENT COUNSELING

Summary of Evidence	Supporting Research	Gray Type
IUD use postabortion does not increase the incidence or severity of early complications. ☑ Strong evidence: One study.	A study in Finland in 1971 found that insertion of the IUD neither increased the incidence or severity of early complications nor lengthened the in-hospital stay after the abortion. A Copper T-200 was inserted immediately after legal abortion in 154 women. Early complications during the operation and within the first eight postoperative weeks were recorded and compared with those of a control group of 144 women having only had abortion and no IUD (Timonen and Luukkainen, 1973).	III
Use of IUDs in the immediate postabortion period is safe. ☑ Strong evidence: One study and one review.	A study of 100 women with inevitable or incomplete first trimester abortions at Al-Hussein University and El-Monera General Hospitals in Egypt who had selected the IUD were randomly selected to receive either immediate postabortion IUD insertion or IUD insertion two weeks later. Also prior to insertion of IUDs, the women were counseled with emphasis on three main points: (1) fertility returns rapidly and women may become pregnant again right away; (2) availability of contraception methods, particularly IUDs; and (3) family planning information and follow-up. Results showed that of the 69 women who received IUD insertion immediately postabortion, there were no cases of perforation or pelvic infections. This study indicated that insertion of an IUD immediately after abortion is safe and could be offered to PAC patients (Moussa, 2001).	III
	A 2004 Cochrane review of postabortion insertion of IUDs found that insertion of an IUD immediately after abortion is "both safe and practical" (Grimes et al., 2004). The review included nine randomized controlled trials (Grimes et al., 2004).	II

II.A. PRE, DURING, AND POST-TREATMENT COUNSELING

Summary of Evidence	Supporting Research	Gray Type
Women who choose to use IUDs or Norplant postabortion find both contraceptive methods safe and highly effective. ☑ Strong evidence: One study.	A prospective cohort study conducted between 1996 and 1998 of 150 women in Istanbul, Turkey, compared results for 50 women who used IUDs, 50 women who used Norplant, and 50 women who relied on withdrawal, also known as coitus interruptus (CI), immediately postabortion. After one year, those using Norplant had a 95 percent continuation rate; those using the IUD had a continuation rate of 90 percent but only 59 percent of women continued to practice withdrawal or continued to postpone the use of contraception. Continuation rates three years later were 61.3 percent for the IUD and 60.8 percent for Norplant, but only 34.1 percent for those using traditional methods such as CI. There were no pregnancies in either group of women using the IUD or Norplant, but there were three pregnancies in the first year among the other 50 women. Antibiotics and uterotonics were rarely prescribed. Women were advised to abstain from vaginal intercourse for two weeks. The expected side effects and signs of possible complications of abortion were explained and women were told to return immediately to the clinic if any one of them occurred. All participants were asked to return at two weeks, six weeks, six months, and one year after the abortion and any time they needed to consult with medical staff (Ortayli et al., 2001).	III

II.A. PRE, DURING, AND POST-TREATMENT COUNSELING

Summary of Evidence	Supporting Research	Gray Type
Use of IUDs after spontaneous and induced abortions is both safe and highly effective. ☑ Strong evidence: One review.	A study analyzing literature on randomized, controlled trials of IUD insertion after spontaneous and induced abortions concluded that such method of post-abortion contraception is both safe and effective. Combined, the eight studies included in the analysis yielded 4,476 woman-years of data. Each trial compared three different types of IUDs in different settings including insertion after induced surgical abortion and insertion after curettage for miscarriage. Patients in most of the studies were followed for an average of two years, at which point complications were assessed. Of the studies analyzing insertion after induced surgical abortion, complication rates were low with only three perforations observed in 2,348 insertions, 157 expulsions, 70 intrauterine or ectopic pregnancies, and 12 cases of pelvic inflammatory disease. The study assessing insertion after miscarriage also found complication rates to be low with only one perforation in 1,060 insertions, 128 expulsions, 21 intrauterine pregnancies, and three cases of pelvic inflammatory disease. Both groups of data had continuation of use rates ranging from 54 percent to 64 percent after one year. Other studies included in the analysis observed continuation rates as high as 91 percent. Discontinuation rates as a result of pelvic inflammatory disease were low and ranged from 0.0 to 0.8 per 100 women one year following insertion. Copper devices were associated with lower failure rates than those without copper, and "T" shaped devices were associated with lower expulsion rates than were others. One study analyzing expulsion rates found no significant differences between women who had immediate post-abortion insertion of an IUD compared to those with a three to five week delayed insertion. However, 40 percent of the women in this study who had agreed to delayed insertion failed to return for the procedure. Lastly, gestational age may increase the risk of expulsion, although data on this relationship is limited (Stanwood et al., 2001).	I

II.A. PRE, DURING, AND POST-TREATMENT COUNSELING

Summary of Evidence	Supporting Research	Gray Type
The availability of free contraceptive commodities may increase the likelihood patients will report that they intend to use a contraceptive and will be discharged with a method. ☑ Strong evidence: One study.	A 2000–2003 operations research study to increase postabortion family planning in Perm, Russia, found that women who were offered a contraceptive method free of charge were significantly more likely to report that they intended to use a modern method and that they intended to begin using contraception immediately as compared to PAC patients who only received counseling. This study used a quasi-experimental time series design to compare two interventions to institutionalize pre-discharge postabortion counseling and family planning services in five sites (two hospitals and three outpatient facilities). Model I consisted of training providers in family planning counseling and interpersonal communication skills and developing and supplying provider job aids and client education materials on postabortion family planning. Model II had the same intervention components, plus offered clients a free initial three-month supply of condoms, pills, DMPA, or IUD. The interventions were evaluated by comparing women assigned to each of the interventions to a "control" group of women attending the same facilities prior to the intervention. Researchers interviewed 1,516 women and observed 40 client-provider interactions prior to the clients being discharged. In addition, they interviewed 49 providers and conducted 1,079 13-month, follow-up interviews with clients to assess contraceptive use and subsequent pregnancies. Among women in the Model II group who wanted to use a family planning method to postpone pregnancy, 88 percent intended to use a modern method and 11 percent were undecided whether to use a modern or traditional method. The proportion of women intending to use a modern method was significantly lower in the Model I (69.0 percent) and control groups (67.3 percent), and many more women were undecided; 28.6 percent of Model I and 31.4 percent of control group women were undecided about the type of method. Far fewer women who were not given free contraceptives intended to use them immediately; only 21 percent of control and 15.6 percent of Model I women, compared to 70.8 percent of Model II women. Most women receiving the improved counseling only intended to begin use after a follow-up visit (55.4 percent), or after the return of menses (24.5 percent), while pre-intervention women were more evenly split between waiting for a follow-up visit (36.3 percent) and menses (32.6 percent). At 12 months postabortion, contraceptive use among women in the improved counseling only group (Model I) was very similar to those receiving an initial (continued…)	III

II.A. PRE, DURING, AND POST-TREATMENT COUNSELING

Summary of Evidence	Supporting Research	Gray Type
The availability of free contraceptive commodities may increase the likelihood patients will report that they intend to use a contraceptive and will be discharged with a method. ☑ Strong evidence: One study.	(continued…) three-month free supply (Model II), and both groups were significantly more likely than the control group to be using a modern method, or any method. Just over half (53.3 percent) of control group women were using a modern method, compared to 62 percent of Model I and 66.7 percent of Model II women. Use of any method after one year was 69.8 percent in the control, 77.3 percent in Model I and 78.3 percent in Model II groups. While less than 2 percent in any group said they intended to use a traditional method in their exit interview, the follow-up interviews found between 12 percent and 17 percent of women were using withdrawal or natural family planning (Savelieva et al., 2003).	III

II.A. PRE, DURING, AND POST-TREATMENT COUNSELING

Summary of Evidence	Supporting Research	Gray Type
Providing on-site counseling and access to free contraceptives following emergency treatment can result in: **(a) increased use of highly effective contraceptives;** **(b) decreased unplanned pregnancies; and** **(c) reduced repeat abortions.** ☑ Strong evidence: One study.	A longitudinal study, carried out between 1996 and 1998, that compared results from the two largest public hospitals in Zimbabwe where the intervention site provided on-site counseling and access to free contraceptives found that significantly more women who had access to contraceptive services on-site following postabortion care used highly effective methods of contraception (i.e., oral contraceptives, Depo-Provera, the IUD, implants, barrier methods, and sterilization) and had fewer unplanned pregnancies and fewer repeat abortions. The proportion of women choosing a modern method of contraception immediately following postabortion care was 96 percent at the intervention site compared to 5 percent at the control site. There were twice as many unplanned pregnancies among patients at the control site during the year-long follow-up compared to the intervention site (96 compared to 42). A higher percentage of women in the control site than in the intervention site had a repeat abortion during the one-year follow-up (5.3 percent compared to 2.5 percent) (Johnson et al., 2002). See Appendix I, Johnson et al., 2002, Zimbabwe, for a description of the intervention.	III

II.B. MALE INVOLVEMENT WITH COUNSELING AND FAMILY PLANNING SERVICE DELIVERY

Summary of Evidence	Supporting Research	Gray Type
Male involvement with counseling and family planning service delivery When asked, many PAC patients would like to have their husbands receive the same counseling and information that they receive. Most men are interested in learning about their partners' heath conditions as well as family planning information.		
Hospital policies that ban men from obstetrical and gynecology wards make it difficult for male involvement and discourage male participation. ☑ Strong evidence: One study.	A study conducted in six hospitals in Egypt (year not specified) on counseling husbands of PAC patients found that "Many hospitals bar men from obstetrics/gynecology wards. One husband interviewed during this project described his experience as follows: 'I spent two nights in the hallway; it was so inconvenient. Every few hours the janitors would come and ask me to go away because they needed to scrub the floors.' These barriers make it difficult for men to get involved even if they want to, and may discourage many from even visiting their wives at the hospital" (Abdel-Tawab et al., 2002: 191). One hundred and thirty-six patients were in the intervention group and 157 patients were in the control group. Counseling was only given to husbands of consenting patients. Consenting postabortion patients were randomly assigned to either an intervention or a control group. Husbands in the intervention group received counseling about the medical condition of their wives, while husbands in the control group did not. A follow-up interview was conducted with both groups of patients one month after hospital discharge (Abdel-Tawab et al., 2002).	III

II.B. MALE INVOLVEMENT WITH COUNSELING AND FAMILY PLANNING SERVICE DELIVERY

Summary of Evidence	Supporting Research	Gray Type
After receiving the patient's expressed and informed consent, counseling husbands of PAC patients separately on follow-up care, return to fertility, and family planning can increase family planning usage and physical, material and emotional support for PAC patients during recovery. ☑ Strong evidence: One study.	A study conducted in six hospitals in Egypt found that counseling husbands of PAC patients led to a greater increase in family planning and greater instrumental and emotional support to their wives. Husbands who were counseled were 50 percent more likely to provide a high level of material support to their wives, 30 percent more likely to provide their wives with a high level of emotional support, and 60 percent more likely to provide a high level of support for the use of family planning, as compared to husbands who were not counseled. When other variables such as the severity of postabortion complications were controlled for, women who received high levels of emotional support from their husbands were 70 percent more likely to report good physical recovery (i.e., they were less likely to report having had symptoms such as fever, bleeding, pain, and weakness). Women who reported receiving high levels of emotional support from their husbands were also twice as likely to report good emotional recovery as women who did not receive such support from their husbands. Husbands were counseled concerning the patient's need for rest and adequate nutrition; postabortion warning signs indicating the need for follow-up care; the possibility of a return to fertility within two weeks; the need for family planning to avoid unwanted or poorly timed pregnancy; and a source of referral care should such care be necessary. One hundred and thirty-six patients were in the intervention group and 157 patients were in the control group. Counseling was only given to husbands of consenting patients. Nurses read a consent statement to the patient only after she had received complete medical treatment, including counseling, and only after it was determined that she was in stable physical and emotional condition. Husbands received counseling by the attending physician in private away from their wives. Thirty physicians received one day of orientation on the content and procedures for counseling the husbands of PAC patients, in conjunction with training on the use of MVA and patient counseling. A posttest-only group design was used. Consenting postabortion patients were randomly assigned to either an intervention or a control group. Husbands in the intervention group received counseling about the medical condition of their wives, while husbands in the control group did not. A follow-up interview was conducted with both groups of patients one month after hospital discharge (Abdel-Tawab et al., 1999 and Abdel-Tawab et al., 2002).	III

II.B. MALE INVOLVEMENT WITH COUNSELING AND FAMILY PLANNING SERVICE DELIVERY

Summary of Evidence	Supporting Research	Gray Type
After obtaining expressed consent from the PAC patient, many male partners want more information about their partner's conditions during PAC and more information on family planning. ☑ Strong evidence: One study.	A study in Kenya conducted from 1995 and 1997 evaluated an intervention consisting of training PAC staff in MVA and postabortion family planning, provision of equipment and supplies, and reorganization of services. In this study, 481 women who received postabortion care were interviewed prior to the intervention and 319 women were interviewed post-intervention. Twenty-nine percent of the women's husbands or partners were interviewed during the post-intervention. Only 14 percent of the men interviewed said that they had received any information about their wives' condition and 94 percent said they would have liked to receive such information. Only 15 percent of men received family planning counseling. Of the men who did not receive family planning counseling, 92 percent said they would have liked to receive such information. Ninety-three percent of the women said they would have liked to have had their husbands receive family planning information (Solo et al., 1999a in Huntington and Piet-Pelon, editors, 1999). See Appendix I, Solo et al., 1999a and Solo et al., 1998, Kenya, for a description of the intervention.	IV

II.B. MALE INVOLVEMENT WITH COUNSELING AND FAMILY PLANNING SERVICE DELIVERY

Summary of Evidence	Supporting Research	Gray Type
Male partners desire to understand more about emergency treatment, care of the woman after the procedure, cause for women's health problems, and contraceptive methods. ☑ Enough evidence for action; needs more research: One study.	A 1999–2001 intervention study conducted in a maternity hospital in Sucre, Bolivia, found 38 percent of male partners interviewed received any information about the health status of their partner, most commonly about the uterine evacuation procedure (97 percent). After obtaining consent from the woman, male partners who were present at the time of discharge were interviewed about their role in the abortion experience; their perspectives toward contraceptive use within the couple, including plans for the postabortion period; their understanding of the woman's health status; possible complications and factors related to return to normal life activities; and the forms of social support that they would offer once the couple returned to their home. Of the 97 men who were not informed at all about their partner's health status, 60 percent expressed that they would have liked to have understood more, particularly about: the procedure, care for the woman after leaving the hospital, possible causes of the woman's health problem, ways of ensuring that the same problem does not happen again, and contraceptive methods. Eighty percent of all men interviewed had many remaining questions and concerns, including whether the woman would be able to be pregnant once again and about the overall consequences of the procedure or "operation." The pre/post intervention study was conducted in maternity hospitals in La Paz, Santa Cruz, and Sucre, but male partners were only included in Sucre (Billings et al., 2003b). See Billings et al., Bolivia 2003b, Honduras, for a description of the intervention.	III
Many women want their husbands present for counseling associated with PAC. ☑ Strong evidence: One study.	Sixty-five percent of PAC patients in an intervention study in Senegal said they would like their husband present for family planning counseling, in contrast to 32 percent who did not want their husband present (the remaining 2 percent were undecided). The level of support for couple counseling sessions changed moderately after the intervention, from 70 percent to 62 percent. An important reason to counsel men is to gain their support for family planning and to encourage them to talk to their partners. While less than half of women interviewed said their partner approved of family planning (44 percent at baseline and 47 percent after the intervention), nearly one third said their partner disapproved (27 percent pre and 30 percent post), and almost another third were unsure (30 percent at baseline and 32 percent at follow-up) (Centre de Formation et de Recherche en Santé de la Reproduction and Clinique Gynécologique et Obstétricale CHU A. le Dantec, 1998). See Appendix I, Centre de Formation, 1998, Senegal, for a description of the intervention.	III

II.B. MALE INVOLVEMENT WITH COUNSELING AND FAMILY PLANNING SERVICE DELIVERY

Summary of Evidence	Supporting Research	Gray Type
Many women want their partners to be informed about their condition, treatment they are receiving, follow-up care, and family planning methods they intend to use. ☑ Strong evidence: One study.	A 2001 operations research study to expand postpartum and postabortion family planning in five hospitals in Honduras found that most women wanted their partners to be informed about their condition. Over 70 percent of women receiving postabortion care said her partner knew she had been hospitalized, and of these, more than two-thirds of partners were at the hospital with the patient. Most women wanted hospital staff to inform their partners about the treatment they were receiving (70 percent) as well as about follow-up care and family planning methods they could use (80 percent). This study was a follow-on to a 199601999 quasi-experimental, pre/post intervention operations research study in Hospital Escuela, the largest hospital in Honduras, which tested an intervention to improve postpartum and postabortion ('post-obstetric event") family planning, counseling and provision of methods, and intent to use among women. (Medina et al., 1998 and Medina et al., 2001). See Appendix I. Medina et al., 2001, Honduras, for a description of the intervention.	III
Men need counseling on when sexual relations can resume following PAC. ☑ Enough evidence for action: One study.	A study in Bolivia from 1995–1996 with PAC patients found that men were not counseled about when sexual relations can resume following PAC and did not listen to their sexual partners. One PAC patient stated, "… one should not have sexual relations for 15 days following intercourse. So for 15 days I thought I could sleep. But I couldn't. My husband did not believe me" (Rance, 1997: 34).	IV

II.B. MALE INVOLVEMENT WITH COUNSELING AND FAMILY PLANNING SERVICE DELIVERY

Summary of Evidence	Supporting Research	Gray Type
Male partners desire to understand more about emergency treatment, care of the woman after the procedure, causes for women's health problems, and contraceptive methods. ☑ Enough evidence for action; needs more research: Two studies..	A 1999–2001 intervention study conducted in a maternity hospital in Sucre, Bolivia, found 38 percent of male partners interviewed in the Hospital "Jaime Sánchez Porcel" received any information about the health status of their wife/partner, most commonly about the uterine evacuation procedure (97 percent). After obtaining consent from the woman, male partners who were present at the time of discharge were interviewed about their role in the abortion experience, their perspectives toward contraceptive use within the couple, including plans for the postabortion period, their understanding of the woman's health status, possible complications and factors related to return to normal life activities, and the forms of social support that they would offer once the couple returned to their home. Of the 97 men who were not informed at all about their partner's health status, 60 percent expressed that they would have liked to have understood more, particularly about the procedure, care for the woman after leaving the hospital, possible causes of the woman's health problem, ways of ensuring that the same problem does not happen again, and contraceptive methods. Eighty percent of all men interviewed had many remaining questions and concerns, including whether the woman would be able to be pregnant once again and about the overall consequences of the procedure or "operation." (Billings et al., 2003b). See Appendix I, Billings et al., 2003b, Bolivia, for a description of the intervention.	III
	A qualitative study in Kenya using 74 in-depth interviews with female adolescents, women having abortions, providers, and leaders, in addition to 32 focus group discussions with married men and women, adolescent males and females, community health workers, CSWs, teachers, elderly men and women, and single men and women found that male involvement in PAC in descending order of frequency included abandoning the girl or woman; paying for care; influencing the decision to seek PAC care; identifying or accompanying woman or girl to a provider; offering emotional support; and providing care and accommodation during and after PAC (Rogo et al., 1999).	IV

II.B. MALE INVOLVEMENT WITH COUNSELING AND FAMILY PLANNING SERVICE DELIVERY

Summary of Evidence	Supporting Research	Gray Type
Adolescent PAC patients may have substantially older male partners. ☑ Enough evidence for action; needs more research: One study.	A 1997 study in Dar es Salaam, Tanzania, of 89 adolescents who were PAC patients found that over 72 percent of the male partners of these adolescent PAC patients were over age 30, and that "the male partner exploits and takes advantage of the adolescent girl, who, without realizing what she exposes herself to, ends up in a life threatening situation. Therefore, it is the behavior of these adult men that ought to be targeted in the first place in Tanzania" (Silberschmidt and Rasch, 2001: 1822). In addition, "while the 'sugar daddies' trust that they are having 'safe sex' with their young girlfriends, they may, in fact, be jeopardizing their own health, that of their wife and other partners" (Silberschmidt and Rasch, 2001: 1822).	V

II.C. STI EVALUATION AND TREATMENT

Summary of Evidence	Supporting Research	Gray Type
Bacterial vaginosis significantly increases the risk of spontaneous abortion nearly 10-fold. ☑ Strong evidence: One meta-analysis.	A meta-analysis of 18 studies with 20,232 patients found that bacterial vaginosis significantly increased the risk of spontaneous abortions nearly 10-fold. "More controlled studies are needed to make more reliable conclusions about the effectiveness of the antibiotic treatment of bacterial vaginosis (BV) in high risk patients." (Leitich et al., 2003: 139).	I
Women experiencing two or more spontaneous abortions have a high prevalence of toxoplasmosis gondii compared to women without this same history. The extent to which toxoplasmosis causes habitual abortions remains controversial. ☑ Needs more research: One study.	A study of 285 women who had two or more repeat spontaneous abortions in Kashmir found high prevalence of the IgM antibody against Toxoplasma gondii in women with repeat abortions (49.5 percent) compared with controls (8.9 percent) who did not have a history of spontaneous abortions. "The extent to which toxoplasmosis causes habitual abortion is still controversial" (Zargar et al., 1998: 136).	III

II.C. STI EVALUATION AND TREATMENT

Summary of Evidence	Supporting Research	Gray Type
Women accessing PAC services often do not receive STI and HIV prevention and care information or services due to lack of training by physicians and midwives in dual protection. ☑ Needs more research: One study.	A study in South Africa, where physicians observed 96 abortion procedures performed by 40 midwives in 25 sites, found that only 1 percent of clients had received condoms. Neither physicians nor midwives were trained in dual protection. "In light of the high incidence of HIV infection in South Africa, the finding that so many women did not receive male or female condoms highlights a missed opportunity. All of the abortion clients who participated in the evaluation had had unprotected intercourse and were thus at risk of STIs and HIV infection in addition to unwanted pregnancy. Postabortion counseling should have been used to counsel women about preventing STIs and HIV and not just the prevention of further unwanted pregnancies. However, because both providers and clients traditionally have considered the condom a method of STI prevention, it often is not routinely offered in the context of contraception services" (Dickson-Tetteh and Billings, 2002: 149). The evaluation was conducted at 37 public health care facilities in South Africa's nine provinces during 2000. Data were collected by observing abortion procedures and counseling sessions, reviewing facility records and patients' charts, and interviewing patients and midwives (Dickson-Tetteh and Billings, 2002 and de Bruyn, 2003).	III

II.D. HIV COUNSELING AND TREATMENT

Summary of Evidence	Supporting Research	Gray Type
Women who are HIV positive are at an increased risk for spontaneous abortion. ☑ Strong evidence: Five studies and two systematic reviews.	A study in Zimbabwe carried out from 1998 to 2001 with a survey of 209 women affected by HIV/AIDS and in-depth interviews with 59 women found that of 41 pregnancies of HIV-positive women, six ended in miscarriages (Feldman and Maposhere, 2003).	IV
	In a study from Malawi, 30 percent of 53 HIV-positive women reported a history of spontaneous abortion compared with 15 percent of 289 seronegative controls (Miotti et al., 1990 cited in Temmerman et al., 1994).	III
	A study of the impact of HIV infection on pregnancy and maternal and fetal outcome from 1992–1993 in Manipur, India, found that symptomatic HIV infection is associated with a significantly increased rate of spontaneous abortion, with 18.2 percent of HIV-positive women experiencing spontaneous abortions as compared to 3.7 percent of HIV-negative women. One hundred and sixty HIV-positive and 164 HIV-negative pregnant women were recruited into a prospective study. Mother and infant were followed until six weeks postpartum. Asymptomatic HIV infection was not associated with adverse pregnancy outcomes (Kumar et al., 1995).	III
	A study of 218,357 women in Italy tested for HIV between 1989 and 1994 when they presented to hospitals for delivery, induced abortion, or treatment for a miscarriage found that the HIV infection rate was significantly higher among women who had spontaneous abortion (Abeni et al., 1997 cited in de Bruyn, 2003).	III

II.D. HIV COUNSELING AND TREATMENT

Summary of Evidence	Supporting Research	Gray Type
Women who are HIV positive are at an increased risk for spontaneous abortion. ☑ Strong evidence: Five studies and two systematic reviews.	An observational study at two prenatal clinics in Abidjan, Cote d'Ivoire, showed that HIV-positive women had a significantly higher risk of miscarriage than HIV-negative women (Berer, 1999 cited in de Bruyn, 2003).	III
	A WHO/UNAIDS literature review found that women with HIV in Africa were 1.47 times more likely to have had a miscarriage than HIV-negative women. HIV-positive women may have higher rates of infection and complications with surgical procedures and therefore, medical management of spontaneous abortions may be particularly advantageous (McIntyre, 1999 cited in de Bruyn, 2003).	I
	A meta-analysis of 31 prospective studies published between 1983 and 1996 found a correlation between HIV infection and spontaneous abortion (Brocklehurst and French, 1998 cited in de Bruyn, 2003).	I
Asymptomatic HIV positive adolescents on antiretroviral therapy are at no greater risk for spontaneous abortion, IUFD, IUGR, or fetal, infant or maternal death. ☑ Needs more research: One study.	A study from 1997 to 2001 of 30 asymptomatic HIV-positive pregnant adolescents in India found that of the 27 who received antiretroviral therapy, there were no "intrauterine fetal demise/death (IUFD), intrauterine growth retardation (IUGR), spontaneous miscarriages, or fetal, infant, or maternal deaths" (Chibber and Khurranna, 2003: 1). Four of the 30 pregnant adolescents had elective abortions (Chibber and Khurranna, 2003).	IV

II.D. HIV COUNSELING AND TREATMENT

Summary of Evidence	Supporting Research	Gray Type
Information is lacking on the needs of HIV positive women in relation to unwanted pregnancy. ☑ Enough evidence for action; needs more research: One study.	"…Little systematically organized information is available on the needs of women living with HIV/AIDS (WHA) in relation to unwanted pregnancy and abortion care, nor on services to cope with these needs" (de Bruyn, 2003: 2). This literature review summarized findings from approximately 250 documents from the scientific and gray literature from 1998–July 2002 using Medline, Popline, Sociofile, Psychinfo and the CDC website including retrospective studies, prospective cohort studies, and qualitative studies (de Bruyn, 2003).	III

II.E.1. INFERTILITY COUNSELING

Summary of Evidence	Supporting Research	Gray Type
Infertility counseling as a component of PAC.	No PAC-related studies found.	

II.E.2. NUTRITION COUNSELING

Summary of Evidence	Supporting Research	Gray Type
Nutrition counseling as a component of PAC.	No PAC-related studies found.	

II.E.3. COUNSELING RELATED TO PSYCHOLOGICAL SEQUELAE

The literature regarding psychological sequelae following abortion or miscarriage is reflective of studies done in the United States. Few international studies addressing this issue are available. While the majority of women receiving PAC services will not develop any psychological sequelae that will require intervention, there is a minority of women who may experience negative emotions related to their miscarriage or abortion. It is important to be aware of risk factors that place these women at increased risk for psychological sequelae that may require further intervention. The decision to abort a pregnancy or carry a pregnancy to term is a complex one. While the literature suggests that the incidence of severe negative response following abortion is low, some women are affected, sometimes for years.

Women presenting for postabortion care services may also be victims of abuse. Studies indicate that between 27.3 percent and 35.1 percent of women seeking abortion have experienced abuse in their lifetime (Leung, et al., 2002; Keeling, et al., 2004; Chescheir, 1996); with 15 percent to 21.6 percent of women reported being abused in the past year (Wiebe and Janssen, 2001; Chescheir, 1996). Domestic violence-related issues are cited by 27.7 percent to 38.9 percent of women as the main reason for terminating their pregnancies. (Kaye, 2001; Leung, et al., 2002). "Domestic violence is a significant problem among gynecology patients, particularly those seeking termination of pregnancy... [and while] a single interview prior to abortion is adequately effective for domestic violence screening... the most effective and acceptable approach of helping the victims needs to be further explored" (Leung, et al., 2002: 54).

The type of emotional/psychological support needed is different for women experiencing miscarriage than for those experiencing induced abortion. Findings from studies using pre- and post-test evaluation show that women who have undergone a miscarriage or spontaneous abortion may have feelings of loss, and grief (Broen, et al., 2004; Stritzinger, 1999; Frost and Condon, 1996); yearn for the lost child; desire to talk to others about the loss, (Athey and Spielvogel, 2000); experience self-blame (Athey and Spielvogel, 2000; Stirtzinger,1999); seek an explanation for the loss (Huntington et al., 1997); worry about their ability to carry a future pregnancy to term (Huntington, et al., 1997); and have the need for a follow-up appointment (Nikcevic et al., 1998). A Canadian study of 1428 women found that 25 percent of women felt that they needed professional help to cope with their loss (Ney et al., 1994).

Nine studies indicate that 1 percent to 41 percent of women who have had abortions are likely to experience feelings of loss, guilt and shame, anxiety, self-reproach, and depression (Broen et al., 2004; Suffla, 1997; Adler et al., 1990; Dagg, 1991; Reardon et al., 2003; Deckardt et al., 1994; Bradshaw and Slade, 2003; Major et al., 2000; Cougle et al., 2005). In the month following abortion, 19 percent to 27 percent of women had high levels of anxiety with 3 percent to 9 percent reporting high levels of depression (Dagg, P.K., 1991; Bradshaw and Slade, 2003). These reactions are noted in the immediate, short-term, and long-term periods following abortion.

II.E.3. COUNSELING RELATED TO PSYCHOLOGICAL SEQUELAE

Findings from two older studies in Sweden and the United States that conducted pre- and post-test evaluation before abortion and at varied intervals after the abortion indicate that the majority of women who have had induced abortion generally experienced feelings of relief (Major et al., 2000; Kero, 2004). While relief is experienced by most women following abortion, a small minority of women may continue to experience long-term negative emotions. Abortion may be associated with subsequent depression up to eight years after the pregnancy event (Cougle et. al., 2003). Approximately 1 percent to 10 percent of women may experience significant negative reactions consisting of mainly depression and anxiety symptoms severe enough to need psychiatric intervention (Bradshaw and Slade, 2003). Inpatient admission rates for women between the ages of 13 and 49 were significantly higher for women who had abortions, particularly in the first 90 days after the abortion (Reardon et al., 2003). Other studies have found that between one to two years postabortion up to 20 percent of women experienced clinical depression along with self-reproachful coping and physical complaints (Deckardt et al., 1994; Dagg, 1991; and Major, 2003). One percent of women met the diagnostic criteria for post traumatic stress disorder during this timeframe (Major, 2003). At four years, there was a statistically significant higher rate of inpatient psychiatric admissions for women ages 13–19, 20–24, and 35–49 (Reardon et al., 2003).

Women at greatest risk for negative reactions include younger women (Pope et al., 2001; Major et al., 2003); women with a history of pre-pregnancy depression (Reardon, 2002; Major, 2003; Pope et al., 2001; Bradshaw and Slade, 2003; Dagg, 1991); women who have been pressured or coerced to abort their pregnancy (Pope et al., 2001; Kero, 2004; Brown et al., 1993); and women with conservative attitudes toward abortion or conflicting religious beliefs (Bradshaw and Slade, 2003; Kishida, 2001; Adler et al., 1990). Stotland (1997) concludes that women who show great emotional distress, have had several previous abortions, or request psychiatric consultation should be offered referrals. Women seeking postabortion care need to be supported in their need to express grief and suffering even if they do not regret their abortion decision (Kero et al., 2004). Increased research…focusing in particular on which women are most likely to suffer psychological sequelae is important for targeting assistance. Physicians, nurses, and midwives involved in postabortion care services should take careful note of the woman's obstetrical and pregnancy loss history, her anxiety level, attitude, and emotions in providing pain management, emotional, and physical support as an integral part of postabortion care.

II.E.3. COUNSELING RELATED TO PSYCHOLOGICAL SEQUELAE

Summary of Evidence	Supporting Research	Gray Type
	Spontaneous abortion or miscarriage	
Women may report suffering negative psychological effects after a spontaneous abortion. ☑ Strong evidence: Four studies.	A qualitative study of 31 PAC patients in Egypt in 1995 found that of the women who miscarried, all "reported an almost complete ignorance of the reasons for their miscarriages and this caused them to worry about their ability to carry a future pregnancy to term." As one woman put it: "I just want to know how it happened. This is my only problem. Some people say that I will keep aborting every time I get pregnant and I do not want that to happen to me" (Huntington et al., 1997: 105).	V
	"If early pregnancy loss occurs, grief can be as intense and complex as for any perinatal or other major loss" (Thorstensen, 2000: 481). "Women are often surprised at the intensity of their feelings and reviewing the process of grieving can normalize the process for them and support their ability to cope" (Athey and Spielvogel, 2000 cited in Thorstensen, 2000: 491). "…Miscarriage is often viewed as a traumatic event by the women who experience it" (Zucker, 1999: 771). Studies in a developed country setting have found that grief after miscarriage is common (Frost and Condon, 1996).	V

II.E.3. COUNSELING RELATED TO PSYCHOLOGICAL SEQUELAE

Summary of Evidence	Supporting Research	Gray Type
	Spontaneous abortion or miscarriage	
Women may report suffering negative psychological effects after a spontaneous abortion. ☑ Strong evidence: Four studies.	Studies in Europe and the U.S. have found that approximately half of all women who experience spontaneous abortion may suffer psychiatric morbidity and that up to 44 percent of women show clinically significant levels of depression and anxiety (Lee et al., 1997 and Neugebauer et al., 1997 cited in Athey and Spielvogel, 2000). Many women also report worries that they will have a subsequent pregnancy loss. "The main symptoms noted are sadness, a yearning for the lost child, a desire to talk to others about the loss, and a search for a meaningful explanation of the loss. There are also features of the grief which are unique to the loss of miscarriage. Women may perceive themselves as a 'failure' for not having produced a healthy baby and may question their identity as a reproductive woman" (Athey and Spielvogel, 2000: 64).	IV
	A study in Canada that surveyed 1,428 women with 2,961 pregnancies found that 25 percent felt that they needed professional help to cope emotionally with their pregnancy loss (Ney et al., 1994).	V

II.E.3. COUNSELING RELATED TO PSYCHOLOGICAL SEQUELAE

Summary of Evidence	Supporting Research	Gray Type
	Induced abortion	
Some women presenting for PAC may have been compelled to have abortions and may experience guilt and immediate or long-term regret. ☑ Strong evidence: One study.	A study of 96 young women ages 14–21 seeking counseling for unwanted pregnancies at four clinics in San Francisco (year of study not specified) found that "adolescents under age 18 years were less comfortable with their decision, but showed no other differences compared with those aged 18–21 years" (Pope et al., 2001: 2). The young women completed questionnaires after counseling and of the 96, 63 were reinterviewed four weeks postabortion. The study found that "subjects' pre-abortion emotional state and the degree to which they felt pressured by their partners" were related to postabortion adjustment (Pope et al., 2001: 10). The study used a number of measurements including the Beck Depression Inventory (BDI), Feelings about Pregnancy, Difficulty of Decision, Positive State of Mind Scale (PSOM), Impact of Events Scale (IES), Rosenberg Self-Esteem Scale, and Spielberg State Trait Anxiety Inventory (STAI) (Pope et al., 2001).	III
19 to 27 percent of women who have induced abortions may report anxiety and depression ranging in duration from one month to two years after the event. ☑ Strong evidence: Seven studies.	A review of the literature from 1990 to 2000 concerning psychological experiences and sexual relationships prior to and following induced abortion found that "women due to have an abortion are more anxious and distressed than other pregnant women or women whose pregnancy is threatened by miscarriage, but in the long term they do no worse psychologically than women who give birth" (Bradshaw and Slade, 2003: 929). Still, around 30 percent are experiencing emotional problems after a month. A search of Medline, PsycLit and Web of Science found 24 studies post-1992 that focused on emotional issues. In these studies, "considerable variations in distress are reported after a pregnancy is recognized but prior to the abortion" — ranging from 15 percent to 69 percent (Bradshaw and Slade, 2003: 932). In one study (Rizzardo et al., 1991), "whilst women due to have an abortion were more anxious than women in the other groups [women in the hospital because of threatened miscarriage, and women who were up to 5 months pregnant (continued…)	III

II.E.3. COUNSELING RELATED TO PSYCHOLOGICAL SEQUELAE

Summary of Evidence	Supporting Research	Gray Type
19 to 27 percent of women who have induced abortions may report anxiety and depression ranging in duration from one month to two years after the event. ☑ Strong evidence: Seven studies.	(continued…) and were continuing their pregnancies], they were not significantly depressed" (Bradshaw and Slade, 2003:934). The review found that "levels of anxiety, depression, and general distress clearly reduce in the month following abortion. The proportion of women with high levels of anxiety in the month following abortion ranged from 19 to 27 percent, with 3 to 9 percent reporting high levels of depression" (Bradshaw and Slade, 2003: 941). A small minority of women were found to experience problems one or two years post-abortion, "and levels of difficulties were similar to that expected in the general population" (Bradshaw and Slade, 2003: 941). Long-term, prospective studies of around 10 years have generally found that "women who have abortions do no worse psychologically than women who give birth to wanted or unwanted children" (Bradshaw and Slade, 2003: 941).	III
	A 1993 study of 882 women (442 of whom were followed for two years) found that six (1 percent) reported posttraumatic stress disorder. In this small group, while "depression decreased and self-esteem increased from preabortion to postabortion…negative emotions increased and decision satisfaction decreased over time" (Major et al., 2000: 777). Prepregnancy history of depression was a risk factor for depression, lower self-esteem, and more negative abortion-specific outcomes two years postabortion. Younger age and having more children preabortion also predicted more negative abortion evaluations. In this study, women who came to one of three sites to terminate a first-trimester unintended pregnancy were randomly approached to participate in a longitudinal study with four assessments: one hour before the abortion, and one hour, one month, and two years after the abortion. Of 1,043 women, 882 (85 percent) agreed. Of those, 442 (50 percent) were followed for two years. Preabortion and postabortion depression and self-esteem, postabortion emotions, decision satisfaction, perceived harm and benefit, and posttraumatic stress disorder were assessed. Demographic variables and prior mental health were examined as predictors of postabortion psychological responses (Major et al., 2000).	III

II.E.3. COUNSELING RELATED TO PSYCHOLOGICAL SEQUELAE

Summary of Evidence	Supporting Research	Gray Type
19 to 27 percent of women who have induced abortions may report anxiety and depression ranging in duration from one month to two years after the event. ☑ Strong evidence: Seven studies.	A quantitative and qualitative study of 65 women, conducted at the University Hospital of Umeå in northern Sweden in 1995, found that "most women (56/58) were satisfied with their decision to have an abortion in the four-month follow-up… However, one woman reported 'much' and three 'some' mental disturbances related to the abortion. At the four-month follow-up, the women were also asked *retrospectively* about their *immediate* post-abortion reactions, and three main subgroups were found: women without emotional distress (62 percent), women with mild/moderate emotional distress, and women with severe emotional distress (21 percent). No significant differences were found between those subgroups concerning age, educational level, civil status, personal finances, children, and previous abortions" (Kero et al., 2004: 2562-2563). Factors causing distress included conflict of conscience, religious beliefs, pressure to have the abortion, problems in the relationship, and desire for the birth. The study "highlights that reactions post-abortion cannot be separated from experiences of the pregnancy and the decision-making process before abortion" (Kero et al., 2004: 2568). The authors concluded that "women…who had experienced a mourning process valued it as an important and appropriate reaction… Thus women should be encouraged to express grief and suffering even if they do not regret their decision" (Kero et al., 2004: 2568). In all, 250 women who applied consecutively for legal abortion were asked to participate—88 percent agreed to do so. Of those, 65 women agreed to participate in a follow up study a few days after the first interview and again four and 12 months later. Of those, 61 women participated at four months and 58 at 12 months (Kero et al., 2004).	III
	A study that compared psychiatric admission rates of women in time periods from 90 days to four years after either an abortion or childbirth, using California Medical (Medi-Cal) records of women ages 13–49 during the time of abortion or childbearing in 1989, found that women who had abortions had a significantly higher inpatient admission rate than women who delivered during each time period analyzed, particularly in the first 90 days after the pregnancy event. At four years, statistically significant differences (continued…)	V

II.E.3. COUNSELING RELATED TO PSYCHOLOGICAL SEQUELAE

Summary of Evidence	Supporting Research	Gray Type
19 to 27 percent of women who have induced abortions may report anxiety and depression ranging in duration from one month to two years after the event. ☑ Strong evidence: Seven studies.	(continued…) were found for women ages 13–19, 20–24 and 35–49. The authors conclude that "additional research, using data that encompass complete medical histories, is strongly recommended. Clinicians who are alert to a patient's history of pregnancy loss may be better able to identify women who would benefit from a referral for counseling." In the analysis, 56,741 women who had no psychiatric admissions or pregnancy events during the previous year, were included in the analysis. Of those, 15,299 had abortions and the remaining 41,422 had live births and were included as comparisons. The analysis controlled for age and mean number of months eligible for Medi-Cal assistance (Reardon et al., 2003).	V
	A study of 66 Japanese women requesting abortion, who participated in a survey at six clinics in Japan (year not specified), found that a conservative attitude toward abortion (in general, not necessarily the current abortion) was the most significant predictor of postabortion anxiety after controlling for the level of pre-abortion anxiety. This study used multiple regression analyses to predict anxiety postabortion. Anxiety was measured using the State Trait Anxiety Inventory (STAI). The women ranged in age from 20 to over 40. In all, 61 questionnaires were usable and included in the analysis. The author concludes that, "a woman's attitude toward abortion and reproductive rights is an important but neglected factor influencing post elective abortion anxiety. Medical and nursing professionals should, therefore, take note of a woman's attitude toward abortion as a part of her mental health care" (Kishida, 2001: 495).	V

II.E.3. COUNSELING RELATED TO PSYCHOLOGICAL SEQUELAE

Summary of Evidence	Supporting Research	Gray Type
19 to 27 percent of women who have induced abortions may report anxiety and depression ranging in duration from one month to two years after the event. ☑ Strong evidence: Seven studies.	A study of five single South African women who underwent illegal induced abortion prior to the legalization of abortion in South Africa in 1996 (study year not specified), found that "the manner in which women responded to the abortion was a joint function of their psychological state and the social environment in which the procedure occurred" (Suffla, 1997: 214). The most common postabortion response was relief; however, some feelings of guilt, shame, and loss were present. Postabortion adjustment was positively related to the perception of support from one's partner. The in-depth interviews (with two students, a clerk, a factory worker and a social worker ages 20–31) focused on the social context of the abortion decision, the procedure, the psychological impact of the abortion and perceptions of coping (Suffla, 1997).	V
	A descriptive, comparative study of 93 women (45 who had a history of elective abortion within the past one to 14 months and 48 who had never had an abortion) at a university in a large southwestern city in the U.S. (study year not specified), found that "although there were no statistically significant differences in the intensity of grief in women who had a history of elective abortion and the comparison group, there was an overall trend towards higher grief intensities in the abortion group. Presence of living children, perceived pressure to have an abortion, and the number of abortions appear to affect the intensity of the short-term grief response" (Williams, 2001: 174). The study used the Intensity of Grief (GEI) scale to measure short-term grief. The women had not had a previous involuntary perinatal loss nor did they have any previous documented psychiatric history (Williams, 2001).	V

II.E.4. GENDER-BASED VIOLENCE

Summary of Evidence	Supporting Research	Gray Type
Between 27 and 39 percent of women seeking abortion have been victims of abuse sometime during their lifetime. ☑ Strong evidence: Seven studies.	A 2000 study of 311 women seeking PAC at a national referral hospital in Uganda found that 70 women (23.2 percent) had induced abortions and 28 of those (38.9 percent) "gave domestic violence-related issues as the main reason for inducing the abortion" (Kaye, 2001: 324). Over half (57.0 percent) of the women reported domestic violence in their first pregnancy, inflicted by a spouse (58.7 percent), ex-spouse/ex-boyfriend (6.1 percent), or relative (24.6 percent). The study was open to all women admitted with abortion complications—every third woman was requested to participate in the study. In all, 311 agreed to do so (total requested sample not given). The women were treated before being referred to a counselor. The women were interviewed using a structured questionnaire and history of abuse was measured using the Abuse Assessment Screen. Age and parity of the sample was similar to that observed in antenatal women. (Kaye, 2001: 324).	III
	A 1999 case control study in a hospital in Hong Kong of 501 women (245 seeking abortion and 256 other ob/gyn patients) found that "the lifetime prevalence of abuse in the group seeking abortion was 27.3 percent compared to 8.2 percent in the ob/gyn group" (Leung et al., 2002: 47). The study also found that "among those with recent history of abuse, 27 percent (9/33) admitted that their decision for termination of pregnancy had been affected by their experience of abuse" (Leung, et al., 2002: 51). The women were interviewed using a modified Abuse Assessment Screen. The women were interviewed when they presented for treatment and again six weeks later to assess how best to measure the experience of violence. Only a small percentage (18.8 percent) of women said they wanted to reveal the information on abuse to their health care providers for further management. The authors conclude that "domestic violence is a significant problem among gynecology patients, particularly those seeking termination of pregnancy... [and while] a single interview prior to abortion is adequately effective for domestic violence screening…the most effective and acceptable approach of helping the victims needs to be further explored" (Leung et al., 2002: 54).	III

II.E.4. GENDER-BASED VIOLENCE

Summary of Evidence	Supporting Research	Gray Type
Between 27 and 39 percent of women seeking abortion have been victims of abuse sometime during their lifetime. ☑ Strong evidence: Seven studies.	A study in a pregnancy counseling clinic in a large district hospital in the northwest of England (year not specified) of 312 women who sought abortion found that 35.1 percent had experienced intimate partner abuse at some point in their lives and 3.7 percent reported forced sexual intercourse during the past year. Fewer than half (45.5 percent) of these women were sure the index pregnancy was not associated with the forced sex. All women attending the pregnancy counseling clinic over a seven month period were eligible for the survey and the response rate was 96.7 percent. Over half (55.3 percent) of the women were under age 25 and most were under age 35 (85.7 percent) (Keeling et al., 2004).	III
	A study in an urban abortion clinic in Canada found that among the 254 women who were asked a series of screening questions, 38 (15 percent) said they had been abused during the past 12 months. The women, all of whom sought abortion, were not asked if the violence was related to their decision to seek abortion. The women who had experienced abuse did not differ significantly from those who had not experienced abuse in terms of age, gestational age, or ethnicity. Of the 499 women for whom the screening questionnaire should have been used, 254 women were asked the screening questions (58 percent of white women, 40 percent of East African women and 37 percent of South Asian women). Various reasons were given for the other women not being screened, including that partners were present, language was a barrier, etc. The authors conclude that, "the fact that only half of women were asked the questions shows how difficult it is to implement a policy of universal screening" (Wiebe and Janssen, 2001: 439). The counselors were well trained and enthusiastic and found it easier over time to ask the questions. They also found that women were receptive to the screening. Some women requested information on clandestine contraceptive use (Wiebe and Janssen, 2001).	IV

II.E.4. GENDER-BASED VIOLENCE

Summary of Evidence	Supporting Research	Gray Type
Between 27 and 39 percent of women seeking abortion have been victims of abuse sometime during their lifetime. ☑ Strong evidence: Seven studies.	A 1996–97 study on 207 pregnant Swedish-born women visiting three antenatal clinics in the inner city of Gothenburg found that 30 women were abused during the current pregnancy and of those, 95 percent had also been abused prior to the pregnancy. "In the group of abused women a higher proportion of women had undergone one or more abortions than in the non-abused group." Abuse was assessed using the Severity of Violence Against Women Scale (SVAW) (Hedin and Janson, 2000).	IV
	A study of 51 women self-referred to the University of North Carolina abortion clinic in 1994 found that 31.4 percent reported being abused during their lifetime, 21.6 percent reported abuse during the past year, and 7.8 percent reported abuse during the current pregnancy. All women abused during pregnancy had also been abused prior to pregnancy. The women in this study were mostly single, with an average age of 24.4 years. Most were of lower socio-economic status and were women of color (Evins and Chescheir, 1996).	IV
	A descriptive study of 100 women attending an abortion clinic in a city in Canada (year not specified) found that 41 reported abuse by their current partners. The sample included 100 consecutive pregnant women who attended the clinic for pre-abortion consultation (representing around 8 percent of annual patient load at the clinic). The women completed confidential, anonymous questionnaires (Lumsden, 1997).	V

II.E.4. GENDER-BASED VIOLENCE

Summary of Evidence	Supporting Research	Gray Type
Physical violence is associated with an increased risk of spontaneous abortion. ☑ Strong evidence: One study and one paper.	A representative sample of 765 married women from Central Java, Indonesia participated in a longitudinal study carried out between 1996 and 1998 and funded by the World Bank, which found that women who experienced physical violence during pregnancy had higher rates of spontaneous abortion. For those who had experienced physical violence during pregnancy, 10 percent had spontaneous abortions as compared to 5.7 percent of those women who reported no physical violence during pregnancy. For those who had experienced sexual violence during pregnancy, 5.9 percent had spontaneous abortions as compared to 3.8 percent of those who did not report sexual violence during pregnancy (Hakimi et al., 2001).	III
	Violence has been linked with increased risk of miscarriages (Amaro et al., 1990 cited in Heise et al., 1999; Jejeebhoy, 1998 cited in Heise et al., 1999; Rosales Ortiz et al., 1999 cited in Heise et al., 1999; Heise et al., 2002).	IV

II.E.5. YOUTH AND PAC

Very few studies have focused on youth and PAC. More research is urgently needed on this topic in order to advise policymakers and program planners on the topic. "Every year, an estimated two to four million adolescents resort to abortion. In comparison to adults, adolescents are more likely to delay the abortion, resort to unskilled persons to perform it, use dangerous methods, and present late when complications arise. Adolescents are more likely to experience complications," (Olukoya et al., 2001: 137). Cause-specific maternal mortality ratios from Matlab, Bangladesh, show that deaths from abortion among 15–19 year olds were twice those in women aged 20–24 (UN, 1989 cited in Olukoya et al., 2001). This study was based on a literature review by WHO. A study of four public hospitals in Dar es Salaam, Tanzania showed that over 41 percent of the patients admitted with complications from an illegal abortion were aged 17 or under (Mpangile et al., 1993 cited in Silberschmidt and Rasch, 2001). Most of the data on PAC and young girls were derived from a study in Tanzania and such efforts need to be expanded in order to capture better the scope, magnitude and context of the issue.