Section D: Examining Relationships Between Risk Factors and Levels of Intervention

Background

After identifying the presence of domestic violence in a relationship, professionals must make a decision on the response to make to the client. Some domestic violence relationships may be severe and very dangerous for the victim, and other relationships may be relatively less dangerous. An enhanced assessment should therefore include a protocol for assessing the dangerousness of a situation in which domestic violence is present.

One way to assess the dangerousness of a domestic violence relationship is to ascertain the presence or absence of various risk factors in the relationship. The presence of particular risk factors may lead a professional worker to intervene more significantly in a situation involving domestic violence; conversely, the absence of risk factors may lead to a moderate intervention. The studies reported below examined the relationship between the presence of risk factors and the level of intervention in cases where domestic violence was identified. In other words, in focuses on how the presence of risk factors influences practitioners to provide a higher level of response. Part one will focus on public health nurses, part two will examine employee assistance program (EAP) counselors, and part three will focus on a Domestic Abuse Intervention Program Advocate. Part four will examine risk factors and level of response across the three settings.

Research Questions

How is the level of intervention related to the risk factors identified by
a) public health nurses,
b) employee assistance counselors, and
c) DAIP Women's Resource Advocates?

Part One: Risk Factors and Levels of Intervention for Public Health Nurses

Method for Public Health Nurses

Sample

The population of this study included women who 1) received home visits from county public health nurses as part of a maternal and child health home visiting program or 2) participated in a Women, Infant and Children Program (WIC). The study took place in a small city in the Upper Midwest.

Women were referred to the maternal and child home visiting program from a variety of community agencies. Some women sought services after receiving information about them from friends, relatives and neighbors. Many of the women and their children were considered at risk for health related problems because of medical concerns, being low income, or having a variety of psycho-social problems. Women may have been visited during a pregnancy or after the child was born.

Women who participated in the WIC (Women, Infants, and Children) Program were screened as part of their visits to a WIC health clinic. WIC is a federal program for parents and their infants/children until age five. The Program provides a combination of nutrition education, supplemental foods, breastfeeding promotion and support, and referrals to health care. WIC is funded by the United States Department of Agriculture and administered by the local county health

department. Nurses assessed clients using a paper and pencil form during a regular appointment. (J. Larson, personal communication, January, 1998).

The only demographic information consistently available from the public health case files was the age of the women receiving services. Table 1 summarizes the ages of women seen in 1996, 1997, and 1998. Information on the partner's age was also available for some files.

Table 1
Ages of 1996, 1997, and 1998 Female Public Health Clients

Age Groupings	1996 (n=697)	1997 (n=592)	1998 (n=459)	Total (n=1051)
Under 21	18%	19%	19%	19%
21-25	35%	38%	32%	36%
26-30	27%	24%	29%	26%
31-35	13%	13%	13%	13%
36-40	5%	5%	6%	6%
over 40	1%	1%	1%	1%
mean age	25.4	25.4	26.0	25.7

The sample included 51 women, 28 from 1996, 17 from 1997 and 6 from 1998. Each of these women had 1) been screened as having been a victim of domestic violence, 2) been assessed further regarding the dangerousness of the relationship she was in currently, and 3) received a response to her situation from the public health nurse. The method by which this sample was obtained is described below in the section on screening and risk assessment.

Operational Definitions

Screening and Risk Assessment. Public health nurses initiated the screening and assessment process by asking questions of the women. After a review of the literature, two questions were decided upon as the screening questions. Discussion with advocates, previously battered women and nurses both verified and piloted these questions. The screening questions were: "Have you ever been afraid of being hurt by your partner?" and "Have you ever been hit, slapped, pushed or choked by your partner?" A woman was identified as having experienced domestic violence if she answered "yes" to at least one of these two questions.

If a woman was identified as having experienced domestic violence, public health nurses conducted a risk assessment by asking 20 questions designed to assess for danger (See Table 4 for

risk factor topics). These questions were developed by Elliott and Shepard (1995) from a review of the literature, particularly the work of Campbell (1995), and Shepard (1992), and from practitioners' experiences.

The screening and assessment was completed in a slightly different manner in the home visits and WIC Program. During home visits, the nurses verbally asked the two screening questions and then verbally asked about the presence of risk factors when the woman was identified as experiencing domestic violence. In the WIC clinics, women completed a questionnaire in which they responded to the two screening questions, and the nurses then verbally asked about the presence of risk factors when the woman was identified as experiencing domestic violence. About twelve different nurses were involved in this screening and assessment process.

The data in Table 2 summarize the numbers of women involved in the screening and assessment process in 1996, 1997, and 1998. Of the 1160 women seen in 1996, 684 (59%) had forms in their files indicating that a domestic violence screening had been completed. Forty-nine women (7.2% of those screened) were identified as experiencing unresolved domestic violence. Thirty-four women were assessed for dangerousness, and 28 of these women received a documented response to domestic violence.

Of the 1063 women seen in 1997, 592 (56%) had forms in their case files indicating that a domestic violence screening had been done. Twenty-six women (4.4% of those screened) were identified as experiencing unresolved violence in a current relationship. Eighteen women were assessed for dangerousness, and 17 received documented responses.

Of the 1410 women seen in 1998, 459 (33%) had forms in their case files indicating that a domestic violence assessment had been completed. Sixteen women (3.5% of those screened) were identified as experiencing unresolved violence in a current relationship. Eleven women were assessed for dangerousness, and 6 women also had received documented responses to domestic violence.

Table 2
Summary of Screening and Assessment Activities for Public Health Nurses for 1996, 1997, and 1998

Activities	1996	1997	1998
Number of New Female PH Clients	1160	1063	1410
Number of Screenings	684	592	459
Percentage of New Clients Screened	59%	56%	33%
Number of Screened Women Identified as Victims of Domestic Violence	49	26	16
Number of Screened Women Assessed for Risk	34	18	11
Number of Documented Responses	28	17	6

Only those women who were both assessed for dangerousness and received as response could be included in the sample and data analysis. Thus 28 women from 1996, 17 women from 1997, and 6 women from 1998, or a total of 51 women, were included in the sample. During 1997 and 1998, nine of these women were assessed in a home visit, and 14 were assessed in a WIC clinic. Type of visit was not available for 1996, but the proportions are likely similar to those for 1997 and 1998.

Level of Response. Based upon their assessment of the situation, the nurses provided the following levels of response: standard, elevated and emergency. Staff from the Domestic Abuse Intervention Project and the nurses developed the response matrix. Each level of response included specific activities in which the nurse could engage (See Table 3). The nurses could provide any level of response based upon their judgment after conducting the risk assessment. For the 51 women included in the sample, the nurses provided 31 standard responses, 18 elevated responses, and 2 emergency responses. For the purpose of analysis, elevated and emergency responses were pooled, since there were so few emergency responses.

Table 3 Description of Levels of Response for Public Health Nurses

Level	Activities
Standard	Gave handout packet on domestic violence and discussed materials
	Advised her that domestic violence is a crime
	Gave materials previously
	Talked about safety concerns
	Told her about shelter, women's groups, DAIP, and/or children's resources
	Talked about danger to herself and her children and/or unborn child
	Set follow up appointment
Elevated	Discussed safety plan
	Referral to shelter and/or women's groups
	Gave information about calling police and/of seeking a protection order
	Asked her if she is safe right now and asked where she will go when she leaves your office
	Set immediate follow-up appointment
	Called her soon after to see how things were going
	Discussed situation with nursing staff

Emergency	Arranged transportation to safe housing or shelter
	Vulnerable adult, reported to adult protection
	Children at risk, reported to child protection
	Arranged to meet with victim and others to strategize for providing protection

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Design

The enhanced assessment protocol involved three steps: screening, risk assessment, and intervention. Statistical procedures were used to determine the relationship between risk factors identified during the assessment and the nurse's level of intervention. In addition, two control variables, client age and partner age, were examined to see if they were related to level of intervention.

Data Analysis

In order to examine the relationship between risk factors and the level of response provided, the presence of risk factors and the level of responses provided were compared using the Fisher's Exact Test. A t-test was conducted to determine if the client age or partner age were different for clients who received different levels of response. Forward stepwise logistic procedures were then used to determine which set of factors, if any, discriminated between "standard" and "elevated/emergency" levels of response. Client age and partner age were also included in the logistic procedure to determine if they had any impact.

Results for Public Health Nurses

The data in Table 4 describe the cases where 1) abuse was identified, 2) a risk assessment was completed and 3) a standard or elevated/emergency response was given. Fisher's Exact Test was used to determine whether or not each of the risk assessment factors was related to the response level. In this comparison, five items were found to distinguish between a standard or elevated/emergency response at the .05 level: #5 (victim has separated or tried to separate from abuser), #10 (assaults have become more frequent), #11 (abuser has problem with alcohol), #12 (abuser has been experiencing high stress), and #18 (abuser shows no remorse) . As an example, for the 12 women where the risk factor "abuser has been experiencing high stress" was present, nine of the responses (75%) were at the elevated or emergency level. This compares to 39% of all responses being at the elevated or emergency level.

Table 4
Relationship between Risk Factors and Public Health Nurse's Level of Response (n=51)

Risk Factors	N yes to risk factor	Standard n=31 (61%)		Elevated n=20 (39%)		Prob.
	n	f	%	f	%	Prob
1. Abuser has seriously injured victim.	10	4	40	6	60	.11
2. Abuser seems obsessed or preoccupied with victim.	8	3	38	5	62	.12
3. Assaults become more violent or brutal.	6	3	50	3	50	.41
4. Victim believes he may seriously injure/kill her.	7	3	43	4	57	.23
5. Victim has separated or tried to separate from abuser.	31	15	48	16	52	.01*
6. Victim has sought outside help.	30	16	53	14	47	.13
7. Abuser has threatened to kill victim.	4	1	25	3	75	.16
8. Victim seems isolated from sources of help.	6	3	50	3	50	.44
9. Victim assaulted by abuser while pregnant.	15	7	47	8	53	.18
10. Assaults have become more frequent.	10	3	30	7	70	.03*
11. Abuser has problem with alcohol.	22	10	45	12	55	.05*
12. Abuser has been experiencing high stress.	12	3	25	9	75	.004*
13. Abuser has threatened to use a weapon.	5	3	60	2	40	.66
14. Abuser has used a weapon against victim.	2	1	50	1	50	.63
15. Victim pressured/forced to have sex.	5	1	20	4	80	.07
17. Abuser threatened/ attempted suicide.	4	3	75	1	25	.49
18. Abuser shows no remorse.	7	1	14	6	86	.01*
19. Abuser was abused as a child.	6	5	83	1	17	.23
20. Abuser has history of violence toward others.	9	5	56	4	44	.50

*Significant at the .05 level or higher

When forward logistic regression procedure was done, items remained in the final model: question #12 (abuser has been experiencing high stress), #18 (abuser shows no remorse), and #19 (abuser was abused as a child) discriminated between the two levels of response (Table 5). If the victim answered yes to the questions regarding high stress and lack of remorse, it was more likely that an elevated/emergency response occurred. However, if the abuser was abused as a child, an elevated or emergency response was less likely. Using this model, a standard response could be predicted accurately 28 out of 29 times (97% of the cases), and an elevated/emergency response could be predicted 10 out of 20 times (50% of the cases).

Table 5
Logistic Regression: Risk Factors and Level of Response for Public Health Clients

	Levels: Standard, Elevated		
Risk Factors	Beta	Prob.	Odds Ratio
Abuser has been experiencing high stress.	2.89	.01	18.02
Abuser shows no remorse.	3.05	.04	21.11
Abuser was abused as a child.	-3.05	.02	.05

Analyses were also conducted to determine if the control variables, client age and partner age, were associated with the level of response. The mean ages for clients and their partners did not differ significantly between those clients who received a standard response and those who received an elevated/emergency response. In addition, neither of these control variables entered into the model when a stepwise logistic regression including client age, partner age, and the risk factors was done.

Discussion for Public Health Nurses

The results indicated that several risk assessment factors were associated with the level of response selected by the public health nurses. A factor-by-factor analysis indicated that five factors were significantly related to the level of assessment. These factors included:

- victim has separated or tried to separate from abuser
- assaults have become more frequent
- abuser has problem with alcohol
- abuser has been experiencing high stress
- abuser shows no remorse.

The forward stepwise logistic regression identified three risk assessment factors that effectively predict whether or not a counselor will choose an elevated/emergency response. These factors were:

- abuser has been experiencing high stress
- abuser shows no remorse

- abuser was abused as a child.

Two factors therefore stand out as being most associated with public health nurses' choice to make an elevated/emergency response to domestic violence after an enhanced assessment. These factors were 1) abuser shows no remorse and 2) the abuser has been experiencing high stress. These two factors were both associated with the level of response when examined individually and were predictive of the level of response in regression analysis.

Part Two: Employee Assistance Counselors

Method for Employee Assistance Counselors

Sample

The case records of women who were seen by counselors as part of an employee assistance program offered by Lutheran Social Services called *LifeWorks Employee Resource* provided the study population. The study took place in a small city in the Upper Midwest. The range of industries served by *LifeWorks* includes government services, school districts, health care, manufacturing, banking and investments, consulting firms for marketing, engineering, architecture, synods of the Lutheran Church, food distribution, high tech industry, and human services. Approximately 55% of the employees covered are blue collar workers. Counseling services are provided by professional masters level counselors and include assessment, referral and brief counseling. Client problem assessments focus on personal problems that have a direct, indirect, or potential effect on work performance or personal well-being (Correspondence, T. Ollhoff, 1998). Records from the employee assistance program indicate that 199 women were seen in 1997 and 238 women were seen in 1998.

The sample included 43 women, 23 from 1997 and 20 from 1998. Each of these women had 1) been screened as having been a victim of domestic violence, 2) been assessed further regarding the dangerousness of the relationship she was in currently, and 3) received a response to her situation from the employee assistance counselor. The method by which this sample was obtained is described below in the section on screening and risk assessment.

The only demographic information consistently available from the employee assistance case files was age of the woman. Ages were similar across the two years studied and are summarized in Table 6. Information about the age of partners was available for 26 (60%) of the 43 case files. The proportions of partners in various age categories was similar to that of the female clients, but the men were on average slightly older. The average age of partners was 40.8 years, with 39.1 being the average in 1997 and 42.5 being the average in 1998.

Table 6

Ages of 1997 and 1998 Female EAP Clients

Age Groupings	1997	1998	Total
Under 20	2%	4%	3%
21-25	9%	5%	7%
26-30	12%	11%	11%
31-35	17%	12%	15%
36-40	23%	14%	19%
41-45	15%	24%	20%
46-50	10%	14%	12%
51-55	10%	11%	10%
over 55	2%	5%	3%
average age	38.1	39.7	38.9

Operational Definitions

Screening and Risk Assessment. Employee assistance counselors initiated the screening and assessment process by asking questions of the women. After a review of the literature, two questions were decided upon as the screening questions. Discussion with advocates, previously battered women and counselors both verified and piloted these questions. The screening questions were: "Have you ever been afraid of being hurt by your partner?" and "Have you ever been hit, slapped, pushed or choked by your partner?" A woman was identified as having experienced domestic violence if she answered "yes" to at least one of these two questions. Eight different EAP counselors were involved in this screening and assessment process.

If a woman was identified as having experienced domestic violence, employee assistance counselors conducted a risk assessment by asking 20 questions designed to assess for danger (See Table 4 for risk factor topics). These questions were developed by Elliott and Shepard (1995) from a review of the literature, particularly the work of Campbell (1995), and Shepard (1992), and from practitioners' experiences.

The data in Table 7 summarize the numbers of women involved in the screening and assessment process in 1997 and 1998. Of the 199 women seen in 1997, 150 (75%) had forms in their case files indicating that a domestic violence screening had been done. Twenty-two women (17% of those screened) were identified as experiencing unresolved violence in a current

relationship, and an additional 3 women were identified to be in violent relationships where abuse was resolved. The term "resolved" reflected the counselor's understanding from the woman that the violence was not currently an issue in their relationship. Twenty-five women were assessed for dangerousness, and 23 received documented responses.

Table 7 Summary of Screening and Assessment Activities for Employee Assistance Counselors for 1997 and 1998

Activities	1997	1998
Number of New Female EAP Clients	199	238
Number of Screenings	150	137
Percentage of New Clients Screened	75%	58%
Number of Screened Women Identified as Victims of Domestic Violence	25	23
Number of Screened Women Identified as Victims of Unresolved Domestic Violence	22	23
Percentage of Screened Women Identified as Victims of Unresolved Domestic Violence	17%	17%
Number of Screened Women Assessed for Dangerousness	25	22
Number of Documented Responses	23	20

Of the 238 women seen in 1998, 137 (58%) had forms in their case files indicating that a domestic violence assessment had been completed. Twenty-three women (17% of those screened) were identified as experiencing unresolved violence in a current relationship, and an additional 7 women were identified to be in violent relationships where abuse was resolved. Twenty-two women were assessed for dangerousness, and 20 received documented responses.

Only those women who were both assessed for dangerousness and received as response could be included in the sample and data analysis. Thus 23 women from 1997 and 20 women from 1998, or a total of 43 women, were included in the sample.

Level of Response. Based upon their assessment of the situation, the counselors provided the following levels of response: standard, elevated and emergency. Staff from the Domestic Abuse Intervention Project and the counselors developed the response matrix. Each level of response included specific activities in which the counselor could engage (See Table 8). The counselors could provide any level of response based upon their judgement after conducting the risk assessment. For the 43 women included in the sample, the counselors provided 32 standard responses, 11 elevated responses, and no emergency responses.

Table 8 Description of Levels of Response for Employee Assistance Counselors

Level	Activities
Standard	Advised her that domestic violence is a crime
	Gave information about: shelter, OFP, Police, Visitation Center, DAIP*
	Advised of mandatory report of child abuse
	Talked about safety planning
	Talked about danger to herself and her children
	Explained rehab program for abuser
	Made follow up or second appointment
Elevated	Did safety plan with her
	Referred her to safe housing**
	Asked her if she would call shelter from your office**
	Set immediate follow-up appointment
	Asked her if she is safe right now and asked where she will go when she leaves your office
	Asked her if she would like you to talk to her employer about providing protection at work Contacted child protection-children in danger
	Called her soon after to see how things were going
Emergency	Warned _____ of threats/danger (victim, child protection worker, employer, family member)
	Arranged transportation to safe housing or shelter**
	Got release of information to talk to others about situation
	Follow-up calls to shelter/ advocate
	Arranged to meet with victim and others to strategize for providing protection

Design

The protocol involved three steps: screening, risk assessment, and intervention. Statistical procedures were used to determine the relationship between risk factors identified during the assessment and the counselor's level of intervention. In addition, two control variables, client age and partner age, were examined to see if they were related to level of intervention.

Data Analysis

In order to examine the relationship between risk factors and the level of response provided, the presence of risk factors and the level of responses provided were compared using the Chi-square or Fisher's Exact Test. A t-test was conducted to determine if the client age or partner age were different for clients who received different levels of response. Forward stepwise logistic procedures were then used to determine which set of factors, if any, discriminated between "standard" and "elevated" levels of response. Client age and partner age were also included in the logistic procedure to determine if they had any impact.

Results for Employee Assistance Counselors

The data in Table 9 describe the cases where 1) abuse was identified, 2) a risk assessment was completed and 3) a standard or elevated response was given. The Chi-square or Fisher's Exact Test was used to determine whether or not each of the risk assessment factors was related to the response level. In this comparison, seven items were found to distinguish between a standard or elevated response: question #3 (victim believes he may seriously injure/kill her), #4 (abuser has threatened to kill victim), #6 (victim has sought outside help), #7 (abuser seems obsessed/preoccupied with victim), #8 (abuser shows no remorse about what he has done), #11 (abuser witnessed physical abuse of mother), and #16 (abuser has problem with alcohol).

Table 9
Relationship between Risk Factors and Employee Assistance Counselor's Level of Response (n=43)

Risk Factors	N yes to risk factor	Standard n=32 (74%)		Elevated n=11 (26%)		Prob.
	n	f	%	f	%	
1. Abuser has threatened to use a weapon.	7	3	43	4	57	.06
2. Abuser has used a weapon against victim.	2	1	50	1	50	.45
3. Victim believes he may seriously injure/kill her.	12	6	50	6	50	.03*
4. Abuser has threatened to kill victim.	11	5	45	6	55	.02*
5. Victim has attempted to leave abuser.	18	11	61	7	39	.09*
6. Victim has sought outside help.	18	10	56	8	44	.02*
7. Abuser seems obsessed/preoccupied with victim.	17	8	47	9	53	.001*
8. Abuser shows no remorse.	14	6	43	8	57	.002*
9. Abuser has criminal history.	8	6	75	2	25	.67
10. Abuser was abused as a child.	10	7	70	3	30	.50
11. Abuser witnessed physical abuse of mother.	6	2	33	4	67	.03*
12. Abuser has seriously injured victim.	3	1	33	2	67	.16
13.Assaults more violent/ brutal/ dangerous.	3	2	67	1	33	.60
14. Assaults have become more frequent.	3	2	67	1	33	.60
15. Victim seems isolated.	10	6	60	4	40	.21
16. Abuser has problem with alcohol.	20	12	60	8	40	.05*
17.Abuser has been experiencing high stress.	12	7	58	5	42	.13
18. Victim has been pressured/forced sex.	8	6	75	2	25	.67
19. Abuser has history of violence toward others.	7	4	57	3	43	.24
20. Abuser threatened/ attempted suicide.	7	4	57	3	43	.24

*Significant at the .05 level or higher

When forward logistic regression procedure was done, three items remained in the final model: question #7 (abuser seems obsessed/preoccupied with victim), #8 (abuser shows no remorse about what he has done), and #12 (abuser has seriously injured victim) discriminated between the two levels of response (Table 10). In other words, if the victim answered yes to these three questions, it was more likely that an elevated response occurred. Using this model, a standard response could be predicted accurately 29 out of 32 times (91% of the cases), and an elevated response could be predicted 8 out of 11 times (73% of the cases). Overall, response level could be predicted 86% of the time based on this model. The Chi-Square for the model was 21.8 with 3 degrees of freedom, which is significant at the .0001 level.

Table 10
Logistic Regression: Risk Factors and Level of Response

	Levels: Standard, Elevated		
Risk Factors	Beta	Prob.	Odds Ratio
Abuser seems obsessed/preoccupied with victim.	3.30	.027	27.05
Abuser shows no remorse.	2.83	.009	16.95
Abuser has seriously injured victim.	2.32	.010	10.20

Analyses were also conducted to determine if the control variables, client age and partner age, were associated with the level of response. The mean ages for clients and their partners did not differ significantly between those clients who received a standard response and those who received an elevated response. In addition, neither of these control variables entered into the model when a stepwise logistic regression including client age, partner age, and the risk factors was done.

Discussion for Employee Assistance Counselors

The results indicate that a number of risk assessment factors are associated with the level of response selected by the employee assistance counselors. A factor-by-factor analysis indicated that seven factors were significantly related to the level of assessment. These factors included:

- victim believes he may seriously injure/kill her
- abuser has threatened to kill victim
- victim has sought outside help
- abuser seems obsessed/preoccupied with victim
- abuser shows no remorse about what he has done
- abuser witnessed physical abuse of mother
- abuser has problem with alcohol.

The forward stepwise logistic regression identified three risk assessment factors that effectively predict whether or not a counselor will choose an elevated response. These factors were:

- abuser seems obsessed/preoccupied with victim
- abuser shows no remorse about what he has done
- abuser has seriously injured victim

Two factors therefore stand out as being most associated with employee assistance counselors' choice to make an elevated response to domestic violence after an enhanced assessment. These factors were 1) the abuser seems obsessed/preoccupied with victim and 2) the abuser shows no remorse about what he has done. These two factors were both highly associated with the level of response when examined individually and were predictive of the level of response in regression analysis.

Part Three: Domestic Abuse Intervention Program Advocate

Method for DAIP Advocate

Sample

The study population included women whose partners were involved in the Domestic Abuse Intervention Project non-violence groups during 1996 and 1997. The DAIP advocate sent letters to all women as their partners started DAIP classes; these letters informed the women of the partner's status and invited them to participate in a women's group. If a woman did not respond to the letter, the advocate attempted phone contact. When making contact with a woman, the advocate obtained a history of abuse which included a risk assessment. The advocate also responded to the woman's needs related to domestic violence. In 1996, the advocate attempted to contact 108 women, and she attempted to contact 234 women in 1997. These 342 women made up the study population.

In order to be included in the sample, a woman both was assessed for dangerousness through the use of the history of abuse questionnaire and received a response from the advocate. A number of women could not be contacted, with the primary reasons being that no address and/or no phone was available. The advocate was able to contact 79 women in 1996 and 117 women in 1997, but many of these women did not complete the history of abuse questionnaire. The sample therefore included a total of 79 women, 32 in 1996 and 47 in 1997, who were both assessed and received a response.

The demographic information available on the women in the sample included age and race. The data on age are included in Table 11. The women average slightly less than 32 years of age, with nine ages missing. The breakdown on race was that 87% of the women were white and 13% were women of color (9% American Indian and 4% Black) with no missing data.

Table 11
Ages of 1996 and 1997 DAIP Advocate Clients

Age Groupings	1996 (n=26)	1997 (n=44)	Total (n=70)
Under 21	4%	9%	7%
21-25	23%	16%	19%
26-30	23%	16%	19%
31-35	15%	27%	23%
36-40	19%	11%	14%
over 40	15%	20%	19%
average age	31.6	31.8	31.7

The age and race of the women's partners were also available for most women. The partners average almost 35 years for the 70 partners for whom data were available. Approximately 82% of the partners were white and 18% were persons of color (12% American Indian and 6% black); information on race was not available for 12 partners.

Operational Definitions

Risk Assessment. Risk assessment occurred in the context of the completion of the history of abuse questionnaire. As part of the questionnaire, women were asked about the presence or absence of a variety of risk factors either within the last three months or at any time in their relationship with the partner who abused them. The topics of these factors appear in Table 13 and 14. The history of abuse questionnaire was completed either by phone interview or in person using paper and pencil. Only one advocate was involved in both the assessment and determining the level of response

Level of Response. Based upon her assessment of the situation, the DAIP advocate provided the following levels of response: standard, elevated and emergency. The DAIP advocate and other staff from the Domestic Abuse Intervention Project developed the response matrix. Each level of response included specific activities in which the advocate could engage (See Table 12). The advocate could provide any level of response based upon her judgement after conducting the risk assessment. For the 79 women included in the sample, the advocates provided 55 standard responses, 19 elevated responses, and 5 emergency responses. Because there were relatively few emergency responses, they were combined with the elevated responses to create 24 elevated/emergency responses in addition to the 55 standard responses.

Table 12 Description of Levels of Response for DAIP Advocates

Level	Activities
Standard	Send letter to all women whose partners start DAIP classes (at least three times) —1) inform her of his status, 2) invite her to group; 3) provide format for her to do history of abuse; 4) offer child care and transportation to groups; 5) give names and phone numbers of women's resource advocates
	Attempt phone contact for those who don't respond to letter
	Obtain history of abuse in person or on telephone
	Discuss importance of telling her story
	Discuss the following: how to report reoffenses; safety planning; shelter services; referral to other groups,parenting classes, AA, shelter education/support groups, Visitation Center; and other resources; culturally specific services; options if vulnerable adult; services for children, respite care; special services for women with disabilities or special needs; getting involved with community activities; OFP process and court advocates
Elevated	(Standard response plus the following activities) Special effort to contact woman if group facilitator or men's program coordinator are concerned and request follow up with woman
	Woman or advocate (with permission) make calls from advocate's office to appropriate parties (e.g. probation officer, prosecutor, attorney, family members, employer, social worker)
	Refer to shelter or safe housing
	Help set up ways for a woman to move
	Suggest she document violations of OFPs or harassing
	Assist her in completing forms if necessary (e.g. Child support)
	Set follow-up appointment
	Follow up phone contact
Emergency	(Standard, Elevated, plus some of the following activities)
	Provide transportation to safe housing if necessary
	Go to court with her, police station

Call an Emergency Response Team meeting if situation requires - or participate if someone else calls ERT meeting

Daily phone contact, sometimes talking through codes

Make sure 24 hour advocacy is available

Call the police if necessary about potential for danger

Suggest she tell other people what is going on

Pick up woman from dangerous situations, if necessary

Call jail and find out release time, let them know he is dangerous

Call 911 "Red Flag"

Set up follow up appointment

Design

The assessment protocol involved two steps: risk assessment and intervention. Statistical procedures were used to determine the relationship between risk factors identified during the assessment and the advocate's level of intervention. In addition, four control variables, client age, client race (white or other), partner age, and partner race (white or other), were examined to see if they were related to level of intervention.

Data Analysis

In order to examine the relationship between risk factors and the level of response provided, the presence of risk factors and the level of responses provided were compared using the Chi-square analysis (or Fisher's Exact Test if warranted by smaller numbers). A t-test was conducted to determine if the client age or partner age were different for clients who received different levels of response. A Chi Square analysis was used to determine if client race or partner race was related to level of response. Forward stepwise logistic procedures were then used to determine which set of factors, if any, discriminated between "standard" and "elevated/emergency" levels of response. Client age, client race, partner age, and partner race were also included in the logistic procedure to determine if they had any impact.

Results for DAIP Advocate

The data in Tables 13 and 14 describe cases where 1) a risk assessment was completed and 2) a standard or elevated/emergency response was given. Chi-square analysis (or Fisher's Exact test) was used to determine whether or not each of the risk assessment factors was related to the response level. The data in Table 13 indicate that only one of the risk factors occurring in the last three months, "the victim trying to separate from abuser," was significantly related to receiving an elevated/emergency response at the .05 level. One other factor occurring in the last three months, "Victim more afraid of abuser," approached statistical significance (p=.07).

Table 13
Relationship between Risk Factors and DAIP Advocate's Level of Response (n=79)

Risk Factors --Last 3 Months	N yes to risk factor	Standard n=55 (70%)		Elevated n=24 (30%)		Prob.
	n	f	%	f	%	Prob
1. Violence happening more often.	23	14	61	9	39	.28
2. Violence getting more severe.	23	17	74	6	26	.59
3. Victim more afraid of abuser.	31	18	58	13	42	.07
4. Victim trying to separate from abuser.	20	16	55	13	45	.03*
5. Victim try to protect abuser from authorities.	14	10	71	4	29	.57
6. Abuser try to limit victim contact with others.	27	21	74	6	26	.59
7. Abuser have problem with alcohol.	32	21	66	11	34	.52
8. Abuser using street drugs.	13	8	62	5	38	.35
9. Abuser have access to a gun.	13	9	56	4	44	.16
10. Abuser feel badly about violence toward victim.	25	20	80	5	20	.17
11. Abuser experiencing unusually high stress.	30	22	73	8	27	.57
12. Abuser obsessed/preoccupied with victim.	25	16	64	9	36	.46
13. Victim believes abuser may seriously injure or kill her.	12	7	58	5	42	.27

*Significant at the .05 level or higher

The data in Table 14 indicate that none of the thirteen risk factors that explored whether or not a factor was ever present in the relationship was related to level of response at the level adopted for this study. One factor, "Abuser injured or killed a pet," was associated with an elevated or emergency response 67% of the time it was present, but this risk factor was present only six times and the association was not statistically significant (p=.07).

Table 14
Relationship between Risk Factors and DAIP Advocate's Level of Response (n=79)

Risk Factors -- Ever Occurred	N Yes to risk factor	Standard n=55 (70%)		Elevated n=24 (30%)		Prob
	n	f	%	f	%	Prob
1. Abuser injured victim so badly that required medical attention.	14	10	71	4	29	.57
2. Abuser threatened to kill victim.	21	13	62	8	38	.37
3. Abuser assaulted victim while pregnant.	12	8	67	4	33	.53
4. Abuser threatened/forced victim to have sex.	21	15	71	6	29	.83
5. Abuser choked victim.	23	16	70	7	30	.99
6. Abuser threatened to use gun against victim.	12	9	75	3	25	.47
7. Abuser used gun or other weapon against victim.	10	8	80	2	20	.36
8. Victim sought outside help because of abuse.	33	21	64	12	36	.33
9. Abuser been through treatment for alcohol or drug addiction.	21	16	76	5	24	.44
10. Abuser has history of violence toward others.	25	19	76	6	24	.40
11. Abuser committed non-violent crimes.	19	14	74	5	26	.66
12. Abuser injured or killed a pet.	6	2	33	4	67	.07
13. Abuser threatened/tried to commit suicide.	27	18	67	9	33	.68

*Significant at the .05 level or higher (none present)

When forward logistic regression procedure was done, only one item remained in the model: "Victim trying to separate from abuser in the last 3 months" discriminated between the two levels of response (see Table 15). In other words, if the victim responded no to this question, it was more likely that an standard response occurred. Using this model, a standard response could be predicted accurately 55 out of 55 times (100% of the cases), but an elevated/emergency response could not be predicted accurately (0 out of 24 times). Overall, level of response could be accurately predicted about 70% of the time. The Chi-Square for the model was 4.43 with 1 degree of freedom, which is significant at the .04 level.

Table 15
Logistic Regression: Risk Factors and Level of Response for DAIP Women Partners

	Levels: Standard, Elevated/Emergency		
Risk Factors	Beta	Prob.	Odds Ratio
Victim trying to separate from abuser in last 3 mo.	1.05	.02	2.88

Analyses were also conducted to determine if the control variables, client age and race and partner age and race, were associated with the level of response. Race was not significantly related to level of response for either clients or partners, and the mean ages for clients and their partners did not differ significantly between those clients who received a standard response and those who received an elevated/emergency response. In addition, none of these control variables entered into the model when a stepwise logistic regression including client age, client race, partner age, partner race, and the risk factors was done.

Discussion for DAIP Advocates

Only one risk factor, "Victim trying to separate from abuser in the last 3 months," was associated with level of response. This variable was both associated with response level when Chi-square analysis was completed and when logistic procedures were undertaken. The other 25 risk factors and four control variables, client age, client race, partner age, and partner race, were not associated with level of response at the level of significance adopted in these analyses.

Two additional risk factors barely missed being statistically significant in their relationship to level of response in a factor-by-factor analysis (p=.07): "Victim more afraid of abuser in the last three months" and "Abuser ever injured of killed a pet." These factors did not enter into the logistic model.

Part Four: Overall Discussion

Conclusions

At least one risk factor was associated with level of response for each group of professionals that both assessed risk factors and then responded to the situation. For public health nurses two factors were most associated with level of response:

- the abuser shows no sign of remorse for what he has done and
- the abuser has been experiencing high stress.

For EAP counselors, two factors were most associated with level of response:

- the abuser seems preoccupied/obsessed with the victim and
- the abuser shows no sign of remorse about what he has done.

For the DAIP advocate, only one factor was associated with level of response:

- the victim was trying to separate from the abuser in the last 3 months.

Thus there was no risk factor that was consistently associated with level of response across the three groups of professionals included in this study. One risk factor, "victim shows no sign of remorse," was associated with a higher level of response for both public health nurses and employee assistance counselors.

A comparison of the risk factors identified in a factor-by-factor analysis for different programs does indicate that some factors were identified for more than one group. "Abuser has problem with alcohol" was associated with a higher level of response for both public health nurses and EAP counselors. The "victim separated or tried to separate" factor was associated with a higher level of response for both public health nurses and the DAIP advocate. Thus, one factor overlapped among those that were most predictive of a higher level of response, and two factors were significantly related to level of response by more than one program when examined on a factor-by-factor basis.

Overall, it appears that the process of risk assessment did guide the intervention steps taken by practitioners. This relationship was more apparent for public health nurses and for EAP counselors. The DAIP advocate appeared less influenced by risk factors and more responsive to the victim's recent action to separate from the abuser. An elevated response may be the result of the victim's need for more advocacy resources to facilitate these efforts to separate.

Limitations

The three professional programs differed in the process and factors used to identify relevant risk factors and activities that were categorized as standard or elevated/emergency responses, making direct comparison between groups difficult. Public health nurses, EAP counselors, and the DAIP advocate all worked separately with DAIP staff to identify relevant risk factors for their setting and to decide on the best wording to use with their clientele. Consequently, different risk factors were assessed in the three settings, and sometimes the same risk factors had different wording across settings.

DAIP staff also worked with counselors, nurses, and advocates separately to categorize the activities that were then determined to represent a standard, elevated, or emergency response. As a result, a standard response for one setting, such as public health, represented a different set of potential activities for a client than a standard response did in another setting, say DAIP. Additionally, it was possible for one activity, such as doing a safety plan, to be a standard response for counselors but an elevated response for nurses.