Prenatal Preparation: Suggestion for Modification

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Full Text: The study of childbirth pain began more than 30 years ago. Yet a review of the literature in this area was unable to locate more than 17 published studies in the intervening years. Furthermore, although many variables have been found to influence the pain of childbirth, only two variables have been found to be significant in more than one study. These variables are anxiety about the pain of childbirth, and anxiety in general. All other variables have either been examined in only one study or have yielded conflicting results across studies. Interpreting the results becomes even more difficult when we realize that mediating variables which we have not controlled or accounted for may be responsible for a significant correlation between pain and any of our studied variables. For example, prenatal preparation per se may not be a significant factor; rather it may only appear to be important because of its relationship with locus of control. Norr, Block, Charles, Meyering and Meyers (1977), for example, found that women who believed in their control over their fate were more likely to attend Lamaze classes than women who did not. These women may experience less pain regardless of participation in prenatal courses. Therefore, a study which does not include locus of control as a variable may erroneously conclude that prenatal preparation correlates with less pain. In recent years there has been a growing interest in prenatal classes, husband participation, and other variables related to the psychological preparation for childbirth. It is important to determine just how effective these variables are in controlling labour pain, since we can manipulate psychological childbirth related variables, but not the demographical, trait or physiological ones (which the exception of medication). Once we know which set of variables and which variables in that set have an important influence on labour pain, it will be possible for health care professionals who treat expectant mothers, to help them approach labour with less fear and experience less pain in the process. It will also be possible to predict where on the pain continuum a particular woman will fit, and this will allow for individual preparation for labor. After careful examination of the literature, 21 variables were selected for the present study, because of their judged relevance to the pain of childbirth. These variables were categorized into four sets: (1) psychological childbirth-related variables-measures of factors which might affect the psychological preparation of the woman. Variables in this set are those which can be changed through childbirth preparation, and the primary goal of this investigation was to identify which, if any, psychological variables are related to pain of labour; (2) physiological childbirth-related variables-factors specific to the birth itself, e.g., medication and size of baby. The last two sets (3) demographic variables and (4) trait variables, are measures of relatively premanent characteristics of the woman and her situation. By entering these sets of variables sequentially into the regression equation (demographic, trait, physiological childbirth, psychological childbirth), the contribution of each set of variables to explaining pain of labour not accounted for by previously entered sets can be determined. Variables The variables in each category will now be reviewed. Psychological Variables Related to Childbirth 11-2. Type of and amount of prenatal preparation. In these classes the women receive theoretical information and training in exercises, relaxation, or postures. These exercises and relaxation provide the women with a feeling of control over her labour. An additional factor relevant to prenatal classes is that they reduce anxiety. It is unclear, however, if amount of practice of the techniques taught in prenatal classes is important. Cogan, Henneborn and Klopfer (1976), found that increased practice resulted in more pain. Stevens and Heide (1977), however, found that pain reduction increased with more practice of their focusing relaxation technique. Norr et al. (1977), Bergstrom-Wallan (1963), and Cogan et al. (1976), found that participation in prenatal preparation reduced pain; however, Davenport-Slack and Boylan (1974), Klusman

(1975), and Nettlebladt, Fagerstrom and Uddenberg (1976), did not find this to be a significant variable. 3-4. Doctor patient rapport and hospital situation. These variables assess the amount of guidance and support given to the woman by the nurses and by the doctor. This can have a positive effect by providing moral support, reassurance and specific help in pain control, or it can have a negative effect by increasing fear and anxiety and undermining faith in the pain-relieving oriented exercises. According to Norr et al. (1977), this variable had no significant effect in reducing pain of labour in their study. 5-7. Fears for self, fears for baby, lack of desire for pregnancy. These fears and anxieties likely cause muscle tension and are, therefore, expected to increase the pain. Norr et al. (1977), examined worry about birth, but this variable did not correlate significantly with increased pain. However, Nettlebladt et al. (1976), examined anxiety about pain in birth and found a significant correlation between the amount of anxiety about pain and the amount of pain experienced; and Beck, Lawrence, Siegel, Davidson, Kormeier, Breitenstein and Hall (1980) found correlations between fear for self, fear for baby and lack of desire for pregnancy and pain of labour. 8. Presence of father. This variable relates to the father's moral support and to his help in coaching his wife in breathing correctly. Some studies used a similar variable-if the woman wanted the baby's father present or not. This encouragement was expected to result in lower anxiety and thus reduce pain. In addition, it was felt that coaching the mother in breathing and relaxing should help to alleviate any pain which she might experience. Huttel, Mitchell, Fischer and Meyer (1972) found that the father's presence made the childbirth experience more positive for the woman, while Cogan et al. (1976) found a relatively large negative correlation between the coach's knowledge of prenatal preparation and pain of labor. However, both Nettlebladt et al. (1976) and Norr et al. (1977) used this variable and did not find a significant correlation with pain. 9-10. Amount of information about what to expect and amount of pain expected. While these variables were not examined in previous pain of labor research, they were expected to affect the pain of labor in a way similar to that in which they affect pain in general. That is, by providing the woman with something to compare her pain to, their tolerance to pain can be expected to increase (Staub and Kellett, 1972). 11. Cognitive control strategies. While there is considerable evidence that cognitive strategies can reduce pain, especially if subjects are allowed to use their own cognitive strategy (Chaves and Barber, 1974; Grimm and Kanfer, 1976; Knox, 1973; Levendusky and Pankratz, 1975; liebeskind and Paul, 1977; Scott and Barber 1977), the efficacy of these strategies in managing labour pain have not been examined. The present study sought to examine this relationship. The cognitive strategies explored in the above mentioned research (focusing, imagery-thought diversion, relaxation) closely resemble pain control techniques taught in prenatal courses. Physiological Variables Related to Childbirth 1. Levels of anesthesia and analgesia. Drugs affect pain of labour in the same manner as they affect pain in general, i.e., by working on the receptors and thus lessening the sensation of pain (analgesics) or by blocking the knowledge of pain from entering the brain, or changing the brain's response to the sensory input (anesthetics). According to Javert and Hardy (1951), the analgesics reduce uterine activity by acting on the nervous system. The end result is less reported pain and anxiety. They found morphine, scopolamine and heroin to be effective in pain reduction and Demerol to be ineffective. Norr et al. (1977) found a positive correlation between analgesics and labor pain, i.e. women who experienced more pain also received more medication, and Klusman (1975) found that anesthesia significantly reduced the pain of labor. However, Nettlebladt et al. (1976) used both analgesia and anesthesia in their study and they did not find a correlation with pain significant. Another aspect of medication is the long term damaging effects of such drugs on the baby's development. Standley, Soule, Copans and Duchowny (1974) found that various analgesics administered during labour and anesthetics administered during delivery affect the newborn's behavior, e.g., his alertness, irritability and motor maturity. They found that the use of anesthesia had a greater influence on the infant than analgesia. However, Lester, Emory and Hoffman (1976) found that other factors (age of mother, birth weight of baby etc.) rather than medication correlated with the infant's behaviour. There is still much debate on the issue of the effect of medication on the newborn. 2. Complications of labor. Complications during labor (e.g., slow dilation after active labor has begun), can increase anxiety and thus

increase pain. Further, the complications themselves may cause pain. Norr et al. (1977) did not find a significant correlation with pain. 3. Length of labor. A long labour increases fatigue and frustration as well as the duration of the pain, and this could increase the subjective evaluation of pain. Nettlebladt et al. (1976) used this variable but did not find a significant correlation with pain. Trait Variables 1. Anxiety. This is an unpleasant affect consisting of psychophysiological changes in response to an unreal threat. Although the mechanism is as yet unknown, high anxiety was expected to correlate with lower pain tolerance. Perhaps it can cause muscle tension in labor and childbirth. Klusman (1975) found a significant correlation between anxiety and pain of labor. 2. General reaction to pain. It seems reasonable to assume that reactions to labor pain will share some common characteristics with general pain experience. However, the only reported study found no such correlation (Davenport-Slack and Boylan, 1974). 3. Extroversion/introversion. Extroverts differ from introverts in a number of significant ways. They are seen as more impulsive, less inhibited and more sociable. In addition, they operate at lower levels of cortical excitation (e.g. they require more stimulation to respond) and therefore their pain threshold should be higher. At the same time, because they are more vocal, they tend to voice their complaints more readily than introverts. This may increase their subjective rating of pain. Eysenck (1961) found a significant correlation between extroversion and pain of labor. 4. Locus of control. In general this is the degree to which the individual perceives that the reward follows from or is contingent upon her own behavior/attributes versus a degree to which she feels the reward is controlled by forces outside of herself. Specifically it is the amount of control the woman feels she has over her fate. The control of termination of aversive stimulus diminishes its impact perhaps by eliminating the fear that things can get worse and even beyond endurance. People who feel they control their lives will be better able to control their labor discomforts, seek coping mechanisms to deal with their pain and elicit responses to their needs from the people around them. Therefore they are expected to suffer less pain. Scott-Palmer and Skevington (1981) found a significant correlation betweeen locus of control and pain with externals experiencing less pain than internals, however Norr et al. (1977) used this variable and did not find it to correlate significantly with pain of labor. Demographical Variables 1. Socio-economic status. Socio-economic status is the status of the individual in society according to her or her spouse's occupation and education. This variable was assumed to correlate with pain since it indicates better health and better resources and orientation to labor and pregnancy (usually internal locus of control, less worry, etc.). Klusman (1975) and Bergstrom-Wallan (1963) found that the groups receiving prenatal preparation were more educated than control groups. We may therefore assume that the more education the woman has the more she will actively prepare for delivery and therefore her experience will be less painful. Rosengreen (1961) found that the higher the socioeconomic status, the shorter the labor period. Beck et al. (1980) found a correlation between social class and pain of labor. However, Norr et al. (1977) and Nettlebladt et al. (1976) did not find this correlation significant. Nettlebladt et al. (1976) found a negative correlation with education level, however Bergstrom-Wallan (1963) and Davenport-Slack and Boylan (1974) did not find this correlation significant. Bergstrom-Wallan (1963) did not find a significant correlation between occupation and pain of labor either. 2. Cultural background. Different cultural groups teach members to react to pain differently-some things are expected to cause much pain in one cultural group and less in another. Weisenberg (1977) explains different cultural reactions to pain from a social comparison standpoint. When outside sensory means for evaluating the validity of one's judgements of the world are lacking, the individual turns toward his social environment in order to validate his judgments and to determine what reactions are appropriate. The models chosen are those most similar to oneself. Winsberg and Greenlick (1967) failed to find a significant difference between black women and white women in pain of labor. 3. Age. Presumably older women, have had more births and greater exposure to information. Therefore they were expected to suffer less pain in childbirth. Norr et al. (1977) expected the opposite correlation, but did not explain why. Perhaps the flexibility of the body decreases with age, and less flexibility will lead to more pain. However, none of the studies which examined age found a significant correlation with pain (Bergstrom-Wallan, 1963; Cogan et al., 1976; Davenport-Slack and

Boylan, 1974; Nettlebladt et al., 1976; Norr et al., 1977). Winsberg and Greenlick (1967) found a negative correlation between age and pain of labor but did not test for significance. Method One hundred and sixteen primiparous women delivering in 13 Metro Toronto hospitals participated in this study. First pregnancies were chosen in order to assess the variables affecting pain of labor without the intervening effect of the previous birth. The women were 18 to 38 years old with a mean of 27 years. Some participated in prenatal preparation through the Childbirth Education Association, Lamaze, Mothercraft or a hospital prenatal course and others did not. Three pain measures were used. Two were measures of the intensity of the pain: a 10 cm line (Aitken, 1969) and a five point scale (Winsberg and Greenlick, 1967). The third was the McGill Pain Questionnaire (Melzack, 1975), which yields three scores: sensory, affective and evaluative. The women in the study were divided into two groups: (a) those that received an epidural before transition, and (b) those that did not receive an epidural before transition. Since in this study, mean pain ratings for these two groups were not substantially different, the two groups were combined for multiple regression analysis and a variable named epidural was included to represent this factor. As can be seen in Table 2 the only significant correlations were with the affective component of the McGill Pain Questionnaire. The significant sets of variables were the trait and the physiological sets. The individual variables that correlate significantly with pain in these sets are: in the trait set-extroversion and locus of control. Extroverted women with an external locus of control experienced more pain. In the physiological set-complications, length of labor and medication. Women who had longer labors with more complications and received more medication experienced more pain. Although the psychological childbirth set did not correlate significantly with pain, some individual variables within it did. These variables are-amount of pain expected, amount of information about what to expect, fears for self and presence of father. The women with less accurate information, more fears for themselves, expecting less pain and with the father present experienced more pain. What does this all mean to the woman preparing for childbirth and to the Health Care professionals working with her? In the literature, general anxiety and anxiety about pain in birth have consistently correlated with pain in labor. Here we found fears for self to correlate with the pain. This finding is especially interesting since most of the women in the study had participated in a prenatal course designed to reduce these fears. Although the study cannot tell us why these women still had these fears, we can speculate. Perhaps these specific fears were not addressed in the group, and the women were too shy or uncertain about themselves to express them? Perhaps they were influenced by stories they heard from other women or something in the presentation or a film was misunderstood or misinterpreted and caused fright? Or, perhaps their fears, which probably took years of conditioning to install, cannot be alleviated through one or two discussions in a group. It might be beneficial for childbirth instructors, doctors and anyone dealing with pregnant women to use a questionnaire, discussion or an interview to determine what fears they have and then work specifically at dispelling them. In this study we used a questionnaire containing 10 items asking about specific fears for self. The items most heavily endorsed by the women were: (1) having a great deal of pain during childbirth; (2) having a hard time during delivery; (3) having difficulty during labour; (4) having difficulty during childbirth; (5) being scared and worried. A closely related issue is the correlation between pain of labor and lack of information about what to expect. Although most women have prepared for their deliveries through attendance at childbirth courses, reading books, talking to friends etc., most felt the information they had was very different from what actually took place. They thought labor was either harder, longer or more painful than they expected. This served to increase the pain felt in labor. In addition, the more pain the woman expected the less her pain seemed to be. One possible explanation may be that the women who expected little pain became anxious when they were confronted with moderate or high levels of pain and the anxiety in turn increased their pain. Therefore it is very important that women are given an accurate picture of labour and the pain experienced in it. This may be difficult without increasing their fears which will in turn influence the pain felt. One way to deal with this may be to give an accurate picture of labor and childbirth accompanied by a choice of coping strategies. This may increase the woman's feeling of control over her pain thus lessening the pain experienced.

Coping strategies are used in all prenatal preparation courses (relaxation, breathing etc.) however it is important for the woman to be offered a variety of strategies and to feel she is able to choose her own strategy and not have to use the one offered by the instructor. The most popular strategies in this study were: breathing, focusing, concentrating on the husband's encouragement, trying to relax, and massage or counter pressure. Some of the other strategies used were: changing positions (on all fours, sitting on a toilet, etc.), concentrating on the pain, moaning, holding breath and praying. However, it is important to remember that use of these coping mechanisms did not correlate with pain of labor, in this study. Presence of father seemed to increase the pain experienced. One possible explanation is that today it is not only acceptable for the father to be present but is expected and perhaps some couples, rather than deciding for themselves if this is something they want to do are pressured by their peers or society or even the childbirth classes into something they are not able to cope with effectively. Therefore, perhaps it is not always desirable for the father to be present and the decision should be left up to the couple. Alternatively, one might suggest that the woman is more comfortable in expressing pain when the father is present than when he is not and that his presence actually reinforces her pain experience and expression since the more pain she expresses the more attention, comforting and soothing she gets. In addition, it is possible that the hospitals, although they do allow fathers to be present, are not really equipped to feal with their presence and, therefore, the father is really treated as merely an outsider or a bystander and thus not allowed to participate, which may therefore undermine any positive effects he might have on his wife and on her pain of labor. These are just tentative explanations and further research is necessary in order to both confirm this finding and try and determine what is the actual reason for it. However, in the meantime, we might be able to help couples by lessening the pressure on the fathers to participate, allowing the couple to reach the decision on their own, and by helping the couple with suggestions and advice with how to deal with hospital staff who may not always be supportive of his presence.

Table 1

Variables Correlated With Pain of Labor

Variable Group	Variables that were not significantly correlated with the pain of labour	Variables found to significantly correlate with the pain of labour
Demographic Variables	Age Socio-economic status Cultural background	
Trait Variables	Anxiety General reaction to pain	Extroversion/Introversion Locus of control
Physiological Childbirth Related Variables		Complications Length of Labour Analgesic medication
Psychological Childbirth Related Variables	Fears for baby Lack of desire for pregnancy Amount of prenatal preparation Type of prenatal preparation Doctor-patient rapport Hospital situation Cognitive control strategies	Amount of pain expected Amount of information about what to expect Fears for self Presence of father

As stated earlier the more medication the woman received the higher her pain seemed to be. This might be due

to the fact that only women in great pain are given medication, or that the medication does not really reduce the pain but creates such an expectation and when it is not fulfilled, anxiety which results creates an impression of more pain. The second explanation seems to be borne out by informal discussions with women after labor and delivery. In addition, research by Javert and Hardy in 1951 found that Demorol which is one of the medications used in labour (and a derivative of some of the others used) was ineffective in reducing pain of labor. When talking about medication we are referring to analgesic medications and not to the epidural.

Table 2

Summary of Hierarchical Multiple Regression Analyses

Set of Variables	Degrees of Freedom	*Pain Measure* 10 cm line	5-point Scale	Sensory	Affective	Evaluative
Demographic	3	.015	.025	.050	.007	.008
Trait	4	.032	.025	.041	.128**	.069
Physiological	5	.08	.04	.03	.11*	.05
Psychological	12	.15	.12	.14	.16	.10
Total	24	.29	.21	.27	.41**	.23

*p < .05
**p < .01

Epidurals have been found to effectively alleviate or eliminate the pain in some women. However there are additional problems with the epidural. Women who received an epidural before transition in this study reported more pain during the periods when they did not have the epidural (before it was given, or when it wore off) than women who did not receive an epidural. Here, again this might be interpreted in two ways, either they received the epidurals because of higher pain, or they expected total pain relief and when it did not always come about or when the epidural wore off they became anxious, and this in turn raised their pain levels. From discussions with the women, the second interpretation appears correct. More research is needed before one can make this conclusion. If it is borne out then it will become very important to prepare women to the fact that an epidural may not always totally relieve the pain and that it may wear off and need to be re-administered. It is also important in future research to try to determine the differences between women who get relief from this medication and women who do not. In conclusion, as part of this research the women were asked to tell us about their experience of childbirth. Most thought it was a thrilling and exciting moment. Some thought that labor was only a necessary step before the actual birth which was the main event of importance. Most described it in terms of a joyous, awesome achievement, as a job well done, beautiful and rewarding although a great many felt it was more than they expected in terms of pain. Sidebar First International Conference on Pre-and Peri-Natal Psychology, Toronto, July 1983. References References Aitken, R. C. B. Measurement of feelings using visual analogue systems. Royal Society of Medicine Proceedings, 1969, 62, 989-993. Beck, N. C; Siegel, L. J.,

Davidson, N. P, Kormeier, S., Breitenstein, A., &Hall, D. G. The prediction of pregnancy outcome: Maternal preparation, anxiety and attitudinal sets. Journal of Psychosomatic Research, 1980,24, 343-351. Bergstrom-Walan, M. Efficacy of education for childbirth. Journal of Psychosomatic Research, 1963, 7, 131-146. Bobey, M., &Davidson, P. Psychological factors affecting pain tolerance. Journal of Psychosomatic Research, 1970,14, 371-376. Bond, M. R. Personality studies in patients with pain secondary to organic disease. Journal of Psychosomatic Research, 1973,17, 257-263. Brown, B. A., Fader, K., &Barber, T. X. Responsiveness to pain: Stimulus specificity versus generality. Psychological Record, 1973,23,1-7. Chaves, J. F., &Barber, T. X. Cognitive Strategies, experimenter modeling and expectation in the attenuation of pain. Journal of Abnormal Psychology, 1974, 83, 356-363. Cogan, R., Henneborn, W., &Klopfer, F. Predictors of pain during prepared childbirth. Journal of Psychosomatic Research, 1976,20, 523-533. Craig, K. D., &Best, J. A. Perceived control over pain. Individual differences and situational determinants. Pain, 1977,3,127-135. Davenport-Slack, B., &Boylan, C. H. Psychological correlates of childbirth pain. Psychosomatic Medicine, 1974,36, 215-223. Eysenck, S. B. G. Personality and pain assessment in childbirth of married and unmarried mothers. British Journal of Psychiatry, 1961,107, 417-430. Grimm, H., &Kanfer, F. Tolerance of aversive stimulation. Behaviour Therapy, 1976, 7, 593-601. Haslam, D. Field dependence in relation to pain threshold. British Journal of Psychology, 1972, 63, 85-87. Huttel, F. A., Mitchell, I., Fischer, W. M., &Meyer, A. A quantitative evaluation of psychoprophylaxis in childbirth. Journal of Psychosomatic Research, 1972,16, 81-92. Javert, C. T., &Hardy, J. D. Influence of analgesics on pain intensity during labour. Anesthesiology, 1951,12,189-215. Kanfer, F., &Seidner, M. Self control: Factors enhancing tolerance of noxious stimulation. Journal of Personality and Social Psychology, 1973,25, 381-389. Klusman, F. Reduction of pain in childbirth by the alleviation of anxiety during pregnancy. Journal of Consulting and Clinical Psychology, 1975,43, 162-165. Knox, U. J. Cognitive strategies for coping with pain: Ignoring vs. acknowledging (Doctoral dissertation, 1973). Dissertation Abstracts International, 1973,34, 2308 (5-B). Lester, B. M., Emory, E. K., &Hoffman, S. L. A multivariate study of the effects of highrisk factors on performance on the Brazelton Neonatal Assessment scale. Child Development, 1976,47, 515-517. Levendusky, P., &Pankratz, L. case report and comments: Self control techniques as an alternative to pain medication. Journal of Abnormal Psychology, 1975,84,165-168. Liebeskind, J. C, &Paul, L. A. Psychological and physiological mechanisms of pain. Annual Review of Psychology, 1977,28, 41-60. Lynn, R., &Eysenck, H. J. Tolerance for pain, extraversion and neuroticism. Perceptual and Motor Skills, 1961,12, 161-162. Melzack, R. The McGill Pain Questionnaire: Major Properties and Scoring Methods, Pain, 1975,2,277-299. Mersky, H. The characteristics of persistant pain in psychological illness. Journal of Psychosomatic Research, 1965, 9, 291-298. Mersky, H. Personality traits of psychiatric patients with pain. Journal of Psychosomatic Research, 1972,16, 163-166. Nettlebladt, P., Fagerstrom, C. F., &Uddenberg, N. The significance of reported childbirth pain. Journal of Psychosomatic Research, 1976,20, 215-221. Norr, K. I., Block, C. R., Charles, A., Meyering, S., &Meyers, E. Explaining pain and enjoyment in childbirth. Journal of Health and Social Behaviour, 1977,18, 260-275. Rosengreen, W. R. Some social psychological aspects of delivery-room difficulties. Journal of Nervous and Mental Disease, 1961,132, 515-52. Schalling, D. Tolerance for experimentally induced pain as related to personality. Scandinavian Journal of Psychology, 1971,12, 271-281. Scott, D. S., &Barber, T. X. Cognitive control of pain; Effects of multiple cognitive strategies. The Psychological Record, 1977,27, 273-383. Scott-Palmer, J., &Skevington, S. M. Pain during childbirth and menstruation: A study of locus of control. Journal of Psychosomatic Research, 1981,25, 151-155. Standley, K., Soule, A. B., Copans, S. A., &Duchowny, M. S. Local-regional anesthesia during childbirth: Effect on newborn behaviours. Science, 1974,186, 634-635. Staub, E., &Kellett, D. Increasing pain tolerance by information about aversive stimuli. Journal of Personality and Social Psychology, 1972,22, 198-203. Stevens, R. J., &Heide, F. Analgesic characteristics of prepared childbirth techniques: Attention focusing and systematic relaxation. Journal of Psychosomatic Research, 1977,22,429-438. Tursky, S. Physical, physiological and psychological factors that affect pain reaction to electric shock. Psychophysiology, 1974,11, 95-112. Weisenberg, M. Pain and pain control. Psychological

Bulletin, 1977. 84, 1008-1044. Winsberg, B., &Greenlick, M. Pain response in negro and white obstetrical patients. Journal of Health and Social Behaviour. 1967, 8, 222-228. Zuckerman, M., Nurnberg, J. I., Gardiner, S. H., Vandiverr, J. M., Barrett, B. H., &Breeijen, A. D. Psychological correlates of somatic complaints in pregnancy and difficulty in childbirth. Journal of Consulting Psychology, 1963,27, 324-329. AuthorAffiliation Helene Wallach, M.A. Ontario Correctional Institute

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