

https://dspace.org/

The effect of a training course in child abuse on the attitudes of general practitioners to the handling of such cases

Jacklin, Lorna Barbara;

2014-03-19
http://hdl.handle.net10539/14229

Downloaded from a DSpace repository. https://dspace.org/

THE EFFECT OF A TRAINING COURSE IN CHILD ABUSE ON THE ATTITUDES OF GENERAL PRACTITIONERS TO THE HANDLING OF SUCH CASES.

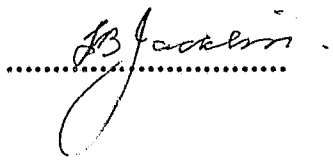
Lorna Barbara Jacklin

A research report submitted to the Faculty of Medicine, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Science in Medicine.

Johannesburg, 1998

DECLARATION

I, Lorna Barbara Jacklin, declare that this thesis is my own work. It is being submitted for the degree of Master of Science in Medicine in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other university.



30th day of May, 1998.

Dedicated to my family; Tony, Jackie and Craig.

ABSTRACT

This study was done to test the hypothesis that medical practitioners lacked the confidence to get involved in child abuse management because of lack of previous training in the discipline.

Questionnaires were administered to a group of medical practitioners to assess their attitude to their role in the management of child abuse, their perception of their knowledge of the physical findings in child abuse and their ability to manage the problem. It was found that although practitioners recognized the importance of their role in child abuse management they lacked confidence in their knowledge of the physical findings of child abuse and their ability to manage the problem.

The main factor found to be responsible for the reluctance of practitioners to deal with child abuse was a lack of training at both under and postgraduate level. The practitioners suggested that improved training at undergraduate level is the most effective means of improving the medical management of child abuse.

A subgroup of the practitioners were exposed to a short correspondence course in the management of child abuse. The experimental group showed a positive trend in their perception of their ability to manage child abuse and their knowledge of the physical features of child abuse.

Based on these findings it is recommended that further research be done into the most effective methods of training doctors in child abuse management.

ACKNOWLEDGEMENTS

I would like to thank the following people for their assistance with this work:

Prof. Francois de Villiers, my supervisor, for his advice and guidance.

Mr. Jonathan Levine for his patience, and invaluable assistance with the statistical analysis.

TABLE OF CONTENTS

PAGE

TITLE i

THESIS STATEMENT ii

DECLARATION iii

DEDICATION iv

ABSTRACT v

ACKNOWLEDGEMENTS vii

TABLE OF CONTENTS viii

LIST OF TABLES xi

LIST OF SYMBOLS USED xiii

DEFINITIONS xiv

1.0 INTRODUCTION

1.1 Background to the study 1

1.2 Aim and objectives of the study 2

1.3 Literature survey 2

2.0 METHODOLOGY

2.1 Study design 13

2.2 Study population 13

2.3 Study sample 14

2.4 Study method 14

2.5 Statistical analysis 17

2.3.1 Introduction to statistical analysis 17

3.0 RESULTS

3.1 Analysis of data 20

3.1.1 Analysis of both groups at baseline 20

3.1.2 A comparison between the groups at baseline 28

3.1.3 A comparison of the change in the two groups 36

4.0 DISCUSSION

4.1 General discussion 41

4.2 Limitations and constraints 45

5.0 CONCLUSIONS AND RECOMMENDATIONS 46

REFERENCES 49

APPENDIX A Child abuse management questionnaire 54

APPENDIX B Training modules 59

APPENDIX C Ethical committee approval

LIST OF TABLES

		Page
Table 3.1	Geographical location of the general practitioners	20
Table 3.2	Number of years in practice	20
Table 3.3	Number of child abuse cases seen per year	21
Table 3.4	Access to a child abuse support team	21
Table 3.5	Relationship between the place of practice and confidence in managing child abuse cases	24
Table 3.6	Relationship between the length of practice and confidence in managing abuse cases	24
Table 3.7	Number of cases seen per year and confidence in managing cases	25
Table 3.8	Access to a support team and confidence in managing cases	25
Table 3.9	Place of practice and composite score	26
Table 3.10	Length of practice and composite score	26
Table 3.11	Number of cases seen and composite score	27
Table 3.12	Access to support and composite score	27
Table 3.13	Place of practice by group	28
Table 3.14	Length of practice by group	29
Table 3.15	Number of cases seen per year by group	29
Table 3.16	Access to team support by group	30

Table 3.17	Shows the proportion of medical practitioners giving a positive response (answering "yes") to child abuse awareness and management	31
Table 3.18	Show a comparison of the recommendation for improving management between the experimental and control groups	32
Table 3.19	Comparison of composite scores between groups	32
Table 3.20	Comparison of ability to manage child abuse between groups, using parameter estimates (adjusting for socio-demographic factors)	34
Table 3.21	Comparison of total score between groups adjusting for socio-demographic factors (analysis of variance)	35
Table 3.22	Proportion of general practitioners remaining in each group	36
Table 3.23	Summary statistics for change score by group	37
Table 3.24	Comparison of change in score between groups adjusting for socio-demographic factors	37
Table 3.25	Ability to deal with child abuse (Question 10)	39
Table 3.26	Knowledge on physical abuse (Question 15)	39
Table 3.27	Knowledge on sexual abuse (Question 16)	39
Table 3.28	Knowledge of referral of cases of abuse (Question 17)	40

LIST OF SYMBOLS USED

F-statistic is the comparison of a continuous variable between groups. The higher the F-statistic the greater the difference between the composite groups.

Q_1 represents the first quartile

Q_3 represents the third quartile

T represents the T-test

Max. represents the maximum number

s.e. represents the standard error

type III ss: Sum of squares

ms: mean square, which measures the significance of the factor

DEFINITIONS.

"General practitioner"

is assumed to mean a medical practitioner in private (family) practice or a medical officer working for the state who is not working in a specialist field.

INTRODUCTION

1.1 Background to the study

According to statistics released by the Child Protection Unit in South Africa (1997), there has been a massive escalation of reported child abuse cases with numbers more than doubling over the past four years from 17,194 in 1993 to 35,838 in 1996, with sexual offenses making up 57% (20,333) of the 1997 figures (Child Protection Unit, 1997). In an attempt to address the problem new child protection services such as the Child Protection Unit and legislation such as the Child Care Amendment Act (1996) have been introduced. This Act has made the reporting of suspected child abuse mandatory by all medical professionals, including medical practitioners. Such legislation has not been accompanied by government enforced or encouraged training programs for medical practitioners.

Very little research is available in this country as to the role being played by doctors in child abuse management, their attitudes to child abuse and what training they have had to equip them for this role.

Staff working at the Child Abuse Clinic at the Transvaal Memorial Institute for Child Health and Development have noted that 24% percent of the children seen at the clinic have been previously examined by a medical practitioner who is unwilling, or unable, to adequately examine the child for the purposes of a child abuse investigation (personal observation).

1.2 The aim and objectives of this study

1. To test the hypothesis that general practitioners are reluctant to get involved in the management of child abuse cases

2. To determine the reasons general practitioners perceive to be responsible for their reluctance to manage cases of child abuse.

3. To determine the adequacy of undergraduate and postgraduate training in child abuse management as seen by the medical practitioners surveyed.

4. To test the hypothesis that providing the medical practitioners with more information on child abuse management will make them feel better able to manage cases of child abuse.

1.3 Literature survey.

Although the true magnitude of the problem of child abuse is not known an American study in 1987 indicated that 1,5% of children are neglected and 1% abused, making child abuse one of the most prevalent problems seen in ambulatory settings today. This study found child abuse to be the second leading cause of death in the first five years of life (Morrow, 1988; Krugman, 1990). Child abuse and neglect also leads to a breakdown of the family "interactional system". This results in significant and long term damage, not only to the physical state of the child but also serious and permanent impairment of the child's development (Hefler, 1985). According to Kempe (1978), a pioneer in child

abuse management, the impact of child abuse is dependent on the developmental stage of the child. He argues that early and decisive intervention, rescue and supportive therapy work well, even if the family is not reunited and that the child deserves a chance at therapy just as much as if there were any other insult to development.

According to the Nedcor project on crime, violence and investment (1996) ".....there is nothing less than a reign of sexual terror against children in South Africa today".

Legislation in South Africa, as in other countries such as the USA, Australia and Israel, requires medical practitioners to report cases of child abuse (Winefield & Castell-McGregor, 1986; Badger, 1989; Child Care Amendment Act, 1996; Shor & Haj-Yahia, 1996).

A research study done in Australia reports general practitioners to be the single most important agency contacted for help in cases of child sexual abuse (Winefield & Castell-McGregor, 1986). The important role played by physicians is demonstrated by a study done by Warner and Hansen in 1991 showing that although physicians in Virginia, USA reported only 8% of the cases of child abuse 53% of these cases were validated, the highest validation rate for any reporting source in the state. This is supported by other studies which show that reports by hospitals and physicians were more likely to be substantiated than from any other source regardless of the severity of the case (Hampton & Newberger, 1985; Shor & Hay-Yahia, 1996). This is thought to be due to an elevated threshold of suspicion and a greater accuracy in distinguishing between

abusive and accidental injuries. The physicians' status may also influence the child protection services investigating the case (Warner & Hansen, 1994).

In spite of the magnitude of the problem and the importance of the medical practitioner as a resource in cases of child abuse there is extensive research showing a lack of recognition, a reluctance to report, and a lack of knowledge about the social and medical aspects of child abuse amongst medical practitioners (Atias & Goodwin, 1985; Ladson, Johnson, & Doty, 1987; Willis & Horner, 1987; Warner & Hansen, 1994; Palusci & McHugh, 1995). Although physical neglect and emotional abuse represent two of the largest categories of child abuse reported practitioners have indicated that they did not report all such cases because they are reluctant to report before they were sure of a diagnosis. This would explain both the lower percentage of reporting by physicians and the high percentage of cases that are confirmed if reported by them.

A number of studies show that the attitude of health professionals affects intervention in child abuse. Eisenberg, Glynn Owens & Dewey, 1987 emphasize the need to identify these attitudes and the factors causing them. Surveys show that factors influencing reporting include the income of the family, ethnic origin of the child, age of the child and the relationship of the perpetrator to the child and the lack of clinical affect on the child. Only 36% of recognized cases of child abuse in higher income families were reported. Reporting has been shown to be biased in favour of reporting in lower income families or children of black or Latino origins . It was negatively affected if the victim was an adolescent or the mother the alleged offender. Physical abuse was more likely to be

reported than other forms of abuse. Additional factors influencing reporting or physician involvement were failure to harbor adequate suspicion, doubts about the clinical evidence, the greater amount of time required in such cases, difficulty in defining child abuse, disruption of a family-physician relationship, fears of damage to the family, reluctance to becoming involved in a court case, frustration with the system, not knowing whom to refer the child and fears of retaliation such as malpractice suits (James, Womack & Strauss, 1978; Morris, Johnson & Clasen, 1985; Winefield & Castell-McGregor, 1986; Willis & Horner, 1987; Saulsbury & Campbell, 1988; Badger, 1989; Hibbard & Zollinger, 1990; Benson, Swann, O'Toole & Turbett, 1991; Wissow & Wilson, 1992).

Reporting was more likely to take place if a child was seen at a hospital compared to other agencies as the negative consequences would be spread across the whole team. Medical practitioners in solo practices and small communities showed a greater resistance to reporting. In spite of hospital cases tending to be the more severe cases, less than half such case were reported to Child Protection Agencies (Hampton & Newberger, 1985; Wissow & Wilson, 1985; Warner & Hansen, 1994).

A survey done amongst medical practitioners by James et al (1978) in Seattle showed that even if the trauma to the child was serious only 32% would report the abuse, while 42% indicated that they would report any case involving sexual activity. This pattern of limited reporting was supported by the Child Protective services statistics since they receive only 11% of their reports from physicians.

Professionals have indicated that their estimate of the accuracy of their diagnosis influences their decision to report (Saulsbury & Hayden, 1986; Badger, 1989). Younger physicians are more likely to indicate a willingness to report and a greater likelihood of recognition of child abuse (Ladson, Johnson & Dory, 1987; Wilson & Wissow, 1992). This probably reflects the changing content of medical training and an increased public awareness of child abuse over recent years.

Medical training has followed the evolution of the pattern of child abuse with expertise being achieved first in physical abuse, more recently in sexual abuse while neglect is more difficult to define and relatively neglected. In contrast to South African figures reporting trends in America show neglect to be most common at 50%, physical abuse at 30% and sexual abuse at 20% (Saulsbury, 1986).

The American Medical Association has emphasized the importance of accurate identification and reporting and has urged medical practitioners to become familiar with the reporting laws in their state. They have acknowledged the importance of child abuse by creating a formal standing committee to deal with the problem. However a sub-specialization in child abuse does not exist and fellowship programs are rare. (Morris, Johnson & Clasen, 1985).

In 1985 Iowa became the first state to require that mandatory reporters such as general practitioners receive 2 hours of training for the identification and reporting of child abuse in the first year of employment and every 5 years thereafter. Specific training requirements for reporters reflect a determination by state legislature to ensure that

physicians at all levels receive child abuse training. In spite of this child abuse is often not reported for the reasons discussed above. Examination of children continues to exclude an examination of the genitalia and knowledge of child abuse remains limited. Residents in one program requested that addition training be integrated into the residency program (Saulsbury & Hayden, 1986).

Studies by Atias and Goodwin (1985), and Winefield and Castell-McGregor (1985) done in America and Australia respectively indicated that medical practitioners felt uncomfortable with their level of knowledge in child sexual abuse and requested further training.

The emphasis in training has been on identification, referral and reporting. Areas which have been neglected are court testimony, child abuse community infrastructures, treatment and prevention. Present day realities show that the physician is required to have a comprehensive approach. He needs to be trained to testify, work with a multidisciplinary child abuse team, comment on treatment and be involved in community prevention programs. Areas that have been poorly developed are history taking, interview techniques, relationship to principles of child development, counseling and anticipatory guidance. These tasks are either done poorly or referred to other professionals. The message has been that child abuse is less a medical entity than other health conditions (Saulsbury & Hayden, 1986; Alexander, 1990; Warner- Rodgers, Hansen & Spieth, 1996).

In an attempt to improve standards of care for the sexually abused patient, doctors in New Zealand have formed a national association called Doctors for Sexual Abuse Care (DSAC), which has developed a process of accreditation to ensure the competency of sexual abuse forensic examiners. The criteria used to judge competency include a knowledge of child development, basic paediatric gynaecology and the role of the expert witness (Shand & Broadmore, 1996).

Hibbard and Zollinger (1990), assessing the knowledge of professionals about child sexual abuse by means of questionnaires, showed that professionals who had some formal training in the topic scored slightly better than their peers. However their knowledge was still inadequate and further training was required. Badger (1989) reports an increased knowledge of referral and ethical responsibility after a child abuse workshop but not a significant difference in the number of cases reported. However, of the medical practitioners who attended the workshop only 12% were troubled by their lack of skill after the workshop compared to 80% of those who had not attended the workshop. This indicated a greater awareness and confidence in the child abuse management skills of the practitioners who had been trained but not an increased detection. Other factors affecting their knowledge were the number of children seen per month and the age of the professional with a more positive response to reporting in practitioners who had graduated more recently. There also appears to be a greater willingness among female practitioners to find behaviour abusive and they express a greater willingness to report. Some authors suggest a reluctance amongst male physicians to recognize cases of incest. This they explain to be an attempt to minimize

the problem as a self protective mechanism against their own unresolved feelings. The significance of the age and sex of the physician has been debated in various studies but no consensus has been reached (Atias & Goodwin, 1985; Willis & Horner, 1987; Hibbard & Zollinger, 1990; Warner & Hansen, 1994).

In 1988 Morrow published an article stating that most paediatric faculties agreed that their residents should be exposed to child abuse education to the extent that he or she would recognize the problem, know where to refer, how to report abuse and where to obtain consultation. He questioned whether child abuse should be part of the mandatory training in the areas of the new morbidity, namely adolescent medicine, child development, psychiatry and the handicapped child. By 1995 a study by Palusci showed a response by medical schools to the physicians' desire for more training by formulating programs that convey the specific knowledge of basic clinical skills needed for the assessment of child abuse and neglect.

A study was done by Winefield and Castell-McGregor (1986) in Australia investigating the sources of information used by general practitioners to improve their knowledge of child sexual abuse. He showed that 71% used reading, 60% the media, 31% discussion with colleagues, 29% clinical experience, 24% post-graduate or in service training and 16% under-graduate training. Since then there has been a move toward under-graduate and post-graduate training in child abuse in most western countries (McDowell & Eriksen, 1989).

The training programs developed in the United States vary extensively. Wolf, Taylor, Melnicoe, Andolsek, Dubowitz, De Vos and Newberger (1988) found that the resident physician's knowledge of child abuse management correlated better with the amount of formal training received than with the year of residency, indicating that experience with training resulted in more effective learning than experience alone.

Studies by both Dubowitz (1988) and Palusci and McHugh (1995) supported the use of intervention which included didactic lectures, but in addition, urged the use of case evaluation with a interdisciplinary team (Gilgun, 1988). Socalar (1996) reports continuing medical education and specialization in paediatrics to have the closest association with excellence in child abuse evaluation.

Prompted by a lack of adequately trained physicians willing to examine abused children, poor reports, refusal to participate in legal procedures and a lack of ability to give evidence in court, the state of North Carolina evolved a program incorporating private practitioners. These physicians, paid by the state, were trained and supervised by the program staff. This low cost solution showed considerable success with an overflow into the community as a number of the trainees both developed services and offer training in their communities (Moore, Hudson & Loda, 1986).

The greater challenge to implementation of training programs has been resistance to training. Possible reasons for this resistance include unresolved problems in the doctors' own childhood including a cognitive dissonance in which the painful is found to be good e.g. support of corporal punishment. An additional problem is the attitude that psycho-

social problems are not real medicine. These ethical and belief systems have been shown to be influenced by trainers. Education and effort is needed to help physicians in training feel more at ease in solving ethical dilemmas (Saulsbury & Hayden, 1986; Alexander, 1990; White, Hickson, Theriot & Zaner,1991).

The child abuse literature reports an advance in the knowledge and willingness of general practitioners to become involved in child abuse reporting since the 1980s. This has been directly associated with improved training programs at both under- and post-graduate level. In spite of the improvement there is still a perceived need for practical training at post graduate level (Atias & Goodwin, 1985). However, a study done in England to investigate the poor attendance of general practitioners at multidisciplinary case conferences showed that even when two thirds of the practitioners were confident of their ability to diagnose sexual abuse they appeared to lack insight into the complexities of diagnosis and further training appeared necessary in the management of child abuse (Harris, 1991).

Multidisciplinary post-graduate training has been found to result in increased long term knowledge and enhanced communication between different disciplines working in the child protection team (Hibbard, Serwent & Connelly, 1987). A follow up study done on students exposed to university based multidisciplinary training showed that it influenced their choice of specializing in child abuse and neglect as a career (Gallmeier & Bonner, 1992).

Studies examining the efficacy of training showed that there appears to be a direct relationship between the intensity of the intervention and the positive outcome. In addition, studies using reinforcing elements such as workshops and knowledge testing practices were more effective in changing outcomes. The objective determination of learning needs is a necessary prerequisite. Although printed material alone demonstrated a relatively weak effect on physician performance it is among the many factors affecting performance change. Medical students have responded well to interactive patient simulation programs as a teaching aid and this may be a useful additional teaching aid when teaching child abuse management (Woolf et al, 1988, Davis, Thomson, Oxman, 1992; Dorsey, Gocey, Munnell, Rinder-Rand, Hall, Hurley & Myers, 1996).

The knowledgeable paediatrician, in addition to the management of child abuse, can play an important role in the prevention of maltreatment by being aware of resources in the community and facilitating appropriate referrals. Provision of anticipatory guidance during visits for child health supervision, may be an important method of introducing constructive disciplinary strategies, in place of corporal punishment and thereby help parents improve parenting skills. In such ways paediatricians could play a role as an advocate for both children and parents (Hefler, 1985; Dubowitz, 1989).

2.0 METHODOLOGY

2.1 Study design

This study was designed as a "before- after" descriptive study of a group of general practitioners who volunteered to do a course in the management of child abuse. These volunteers were randomly assigned into the control or experimental group using the telephone directory technique. The purpose of having a control group was to eliminate the possibility that the change in the experimental group may have occurred due to environmental factors such as media coverage of the problem by comparing the change in the experimental group to that in the control group.

2.2 Study population

The study population were a group of 104 volunteers from two groups of general practitioners coming from all parts of Southern Africa to attend the post graduate courses in emergency medicine held in 1993 and 1994 under the auspices of The University of the Witwatersrand department of Family Medicine. The common interest of the general practitioners was a perceived need for post graduate training in emergency medicine. They included a cross section of many of the ethnic groups in the country but were not specifically selected for this reason. They also represent a variety of demographic regions. The study population represents a subgroup with an interest in child abuse management.

2.3 Study sample

The study population was randomly divided into an experimental group (46) and a control group (58), using the telephone directory method. The study sample consisted of the 46 general practitioners who were randomly selected from the group of volunteers. The final analysis was done on the 59 respondents who completed the course (35 controls and 29 in the experimental group). The attrition can largely be counted for by the mobility of the study many of the subjects having moved during the study period.

2.4 Study method

After a lecture on "The emergency management of child abuse" all the medical practitioners were asked to complete a questionnaire entitled "Child abuse management". This questionnaire was designed to probe their attitude to the management of child abuse, their exposure to the problem, their access to a support team and their under-graduate and post-graduate training in child abuse management (see Addendum A).

They were then offered a correspondence course in child abuse management. The group of practitioners who volunteered to take part in the course were randomly divided into two groups. Group A, was experimental group, who would take part in the course.

Group B, the control group, were offered the course after completing a follow up questionnaire, a minimum of 6 months after the initial questionnaire.

The experimental group was sent a series of five training modules (see Addendum B) over a period of 12 to 24 months covering different aspects of child abuse:

Module 1: Introduction to child abuse

Module 2: Non-accidental injury

Module 3: Sexual abuse

Module 4: Other forms of abuse

Module 5: Medico-legal aspects and legislation around child abuse

The modules each contained concise information on the identification and management of different types of child abuse and were written by myself drawing on current literature on the subject and personal experience. Each module was between four and seven pages in length with the intention that it could be read in approximately 40 minutes. They were each accompanied by an assessment form to test the candidates' knowledge of the contents of the module. After the candidates had returned all five assessment forms they were sent a follow up questionnaire very similar to the initial questionnaire. Those who completed all the questionnaires were rewarded with a certificate indicating that they had completed the course. A time lapse of a minimum of a year occurred between the initial and the follow up questionnaire.

The control group (B) was sent a follow up questionnaire 12 to 24 months after they had entered the study. If they returned the questionnaire they were sent the five training modules and were likewise rewarded with a certificate if they returned the assessment forms.

A total of 107 medical practitioners volunteered to do the course of whom 59 completed it. The study consisted of the 59 respondents who completed the course This was made up of 35 controls and 24 in the experimental group.

The responses of the medical practitioners who completed the study were analyzed to:

- give a demographic profile of the group
- assess their opinion of child abuse management
- assess their opinion of their ability to manage cases of child abuse
- assess the effects of demographic factors on their ability to manage child abuse
- assess the difficulties they faced in child abuse management
- assess their opinion of their medical training in child abuse management.

After exposure of the experimental group to the training course they were compared to the control group to look for a change in:

- their perceived ability to manage child abuse
- their perception of their knowledge of the physical findings in physical and sexual abuse cases.

2.5 Statistical analysis

2.3.1 Introduction to statistical analysis

The aims of the study were:

- To test the hypothesis that: (a) general practitioners are reluctant to get involved in the management of child abuse cases (b) that providing them with more information on child abuse management will make them more prepared to manage cases of child abuse
- Determine the main reasons general practitioners perceive as causing their reluctance to manage child abuse cases
- Measure the adequacy of training in child abuse management by assessing the doctors' feelings about their training

From a data analytic perspective this leads to the following requirements:

A. A joint analysis of both groups at baseline (i.e. groups 1 and 2 together) in order to examine

   a) Whether general practitioners perceived ability to manage child abuse cases such as measured by question 10 ("Do you feel able to manage cases of child abuse?")

   b) To look at the general awareness of the child abuse among general practitioners as measured by the composite total "Child Abuse Awareness

Score" (based on "yes" responses to question 5 to 20, excluding 10 and 14). Thus "Child Abuse Awareness Score" will range between 0 and 15, with high scores indicating an overall high awareness/confidence to handle child abuse cases, and a low score indicating a reluctance to do so.

c) To look at socio-demographic factors that affect the responses in (a) and (b) above, namely where the doctor practiced (urban, periurban, rural), how long the doctor practiced (5 years or fewer, 6-10 years, more than 10 years) and the number of child abuse cases seen per year (0, 1-3, 4-6, 7+)

d) To look at the reasons given in response to question 10 (" Rank in order of importance which of the reasons given below would in your opinion best explain your reluctance to manage case of child abuse"), by those general practitioners who feel unable to manage cases of child abuse.

B. A comparison between groups at baseline, firstly, to show that the groups are comparable both in terms of socio-demographic characteristics and prior attitudes. Secondly, to serve as a baseline in assessing whether the intervention had a significant effect.

C. A comparison between groups to detect whether the intervention had any effect. The analysis used will look at the change within each subject from pre- to post-intervention, and compare the changes between the two groups.

a) For the total score, this comparison can be done using a general linear model, comparing the actual change between groups, adjusting for the initial score (as

general practitioners with a higher initial score have less potential for change than those with a lower initial score), the sociodemographic variables (place of practice, time spent in practice and number of child abuse cases seen) and also whether the general practitioner has access to a support team. An adjusted comparison will be made, using a two sample t-test carried out between the two groups on the change in total score.

b) For the categorical variables (e.g. question 10, dichotomized as "yes" or "no" and "uncertain") each subject can be categorized as deteriorating (changing from "yes" to "no") no change ("yes", yes" to "no", "no") or improving (changing from "no" to "yes"). The proportion of general practitioners in each of these three categories can be compared between groups using Armitage's chi-squared test for trend, which is available in Epi Info 6 Statcalc module. This technique, known as Prescott's test, is used in cross-over clinical trials to analyze binary responses (Jones, Kenward.1989). This method is preferred as it adjusts for the number of drop outs from the two groups, as a post intervention difference may be due to the general practitioners who dropped out in the two groups (e.g. if the "good" general practitioners in the group dropped out and the "bad" general practitioners in the other group).

3.0 RESULTS

3.1 Analysis of data

3.1.1 Analysis of both groups at baseline.

The socio-demographic characteristics of all practitioners who participated are summarized in tables 3.1 to 3.4 below.

Table 3.1 Geographical location of general practitioners

Response	Frequency	Percentage
Urban	62	59.6
Peri-urban	28	26.9
Rural / Homelands	14	13.5
Total	104	100

The table above shows an unequal distribution of medical practitioners between different demographic areas in the sample studied. This could have caused a bias in the results because of the different availability social services and other sources to whom to refer different demographic regions.

3.2 Number of years in practice

Response	Frequency	Percentage
5 years or fewer	33	31.7
6 - 10 years	36	34.6
More than 10 years	35	33.7
Total	104	99

Table 3.2 shows that the sample of medical practitioners were equally distributed across the years in practice. This is likely to decrease bias. As discussed in the literature survey the North American literature suggests that more recently qualified medical practitioners show a greater confidence in their ability to manage child abuse.

Table 3.3 Number of child abuse cases seen per year.

Response	Frequency	Percentage
None	13	12.7
1-3	42	41.2
4-6	20	19.6
> 6	27	26.5
Total	102	100.0

(2 missing)

The table above shows that the majority of the medical practitioners recognise three or fewer cases of child abuse per year. This low exposure to such cases will result in a lack of experience and therefore a lack of confidence in dealing with the problem.

Table 3.4 Access to a child abuse support team

Response	Frequency	Percentage
Always	35	34.0
Sometimes	38	36.9
Never	30	29.1
Total	103	100.0

(missing 1)

Examination of responses to questions 5 - 9 dealing with the medical practitioners attitude to child abuse showed a positive attitude to child abuse intervention. Only one of the 104 respondents disagreed that child abuse is a crime. The majority of the group

(73/104) considered child abuse to be a significant problem in the community they serve. Almost all (102/104) of the group felt that medical practitioners had an important role to play in the management of child abuse and 84% (88/104) felt that their medical evidence could have an important influence on the outcome of the court case. The importance of intervention by skilled welfare workers was recognized by 94% (98/104) of the group.

In contrast to their generally positive attitude to child abuse intervention, question 10 which examined the medical practitioners" perceived ability to manage child abuse showed that only 26% (27/104) of the medical practitioners felt able to manage cases. Of the 77 practitioners who felt unable, factors thought to contribute to their perceived lack of ability were examined. Factors thought to be important by respondents were inadequate training by 44% (46/104), lack of training in giving evidence in court by 36% (38/104), lack of time to go to court by 15% (16/104), lack of a community structure by 27% (28/104) and a lack of confidence of benefiting the child by 14% (15/104).

Questions 11-14 examined the willingness of medical practitioners to deal with the various aspects of child abuse management. The majority (90/104) were willing to examine a child where child abuse was suspected (8 didn't respond), while 89.6% (95/104) were willing to submit a written report on the clinical findings and 78.3% (83/104) were willing to submit evidence in court.

More medical practitioners expressed confidence in submitting evidence about physical abuse (71.6%, 74/104), than submitting evidence on sexual abuse (12.7%, 13/104).

Questions 15-18 which examined the medical practitioners' perception of their knowledge of child abuse management showed that only 43 (41.3%) felt they had enough knowledge on physical abuse and 34 (32.7%) felt they had enough knowledge on sexual abuse. A greater number (60, or 57.7%) felt they knew to whom cases of child abuse should be referred when child abuse was suspected. Only 25 (24%) of the medical practitioners felt adequately prepared in court procedure to give evidence in court.

The training of the medical practitioners in child abuse management was explored in questions 19-21. Out of 104 respondents only 8 (7.7%) felt that their undergraduate training had adequately prepared them to manage cases of child abuse and 13 (12.9%) felt that they had enough postgraduate training in child abuse management. When asked to identify possible methods of improving child abuse management, 77 medical practitioners rated improved undergraduate training as important, 69 rated postgraduate training as important, 59 rated establishment of multidisciplinary teams as important and 25 rated streamlining of court appearances as important.

From the individual questions it can be seen that general awareness of abuse as a problem was high, but very few general practitioners felt adequately prepared to deal with it, partly as a result of feeling that their training had been inadequate in this field.

The relationship between the sociodemographic factors (questions 1 - 4) and the response to question 10 was examined, and the results are summarized in the tables 3.5 - 3.8 below.

Table 3.5 Relationship between the place of practice and perceived ability to manage child abuse cases

	Able to manage abuse.		
Place of practice	**No**	**Yes**	**Total**
Urban	46 (74%)	16 (26%)	**62**
Peri-urban Rural	21 (75%)	7 (25%)	**28**
Rural	10 (71%)	4 (29%)	**14**
Total	**77**	**27**	**104**

Chi-squared = 0.064 on 2 d.f. p = 0.97 (not significant)

Thus there is no evidence that feeling able to manage abuse cases is related to the place of practice.

Table 3.6 Relationship between the length of practice and perceived ability to manage abuse cases

	Able to manage abuse		
Length of practice	**No**	**Yes**	**Total**
5 years or fewer	27 (82%)	6 (18%)	33
6 - 10 years	26 (72%)	10 (28%)	36
over 10 years	24 (69%)	11 (31%)	35
Total	**77**	**27**	**104**

Chi-squared = 1.645 on 2 d.f. p = 0.44 (not significant)

Although there appears to be a slight trend showing that doctors who have practiced longer being more able to manage cases, this is not statistically significant i.e. we do not have enough evidence to say that ability to manage cases depends on the length of practice.

Table 3.7 Number of cases seen per year and perceived ability to manage cases

	Able to manage cases		
Number of cases seen.	**No.**	**Yes**	**Total**
None	11 (85%)	2 (15%)	13
1 - 3	33 (79%)	9 (21%)	42
4 - 6	14 (70%)	3 (30%)	20
7 or more	17 (63%)	10 (37%)	27
Total	**75**	**27**	**102**

Chi-square = 3.05 on 3 d. f. p = 0.38 (not significant)

The table 3.7 above shows a trend towards perceived ability linked to frequency of cases seen by the medical practitioner. However, the trend is not statistically significant.

Table 3.8 Access to a support team and perceived ability to manage cases

	Able to manage cases		
Access to support	**No**	**Yes**	**Total**
Always	20 (57%)	15 (43%)	35
Sometimes	32 (84%)	6 (16%)	38
Never	24 (80%)	6 (20%)	30
Total	**76**	**27**	**103**

Chi-square = 7.75 on 2 d. f. p = 0.02 (significant)

The results shown in table 3.8 show strong evidence that the ability to manage cases is associated with access to a support team i.e. general practitioners who always have access to a support team are more able to manage cases than general practitioners who have access sometimes or those who never have access.

Next, the relationship between the socio-demographic factors (Questions 1 - 4) and the composite variable "Child Abuse Awareness Score" (as explained on page 18) measuring awareness/preparedness in child abuse management was examined. The composite variable "Child Abuse Awareness Score" was treated as a continuous response, and the relationship to each of these variables in turn examined using a one-way analysis of variance.

Table 3.9 Place of practice and composite score .

		Composite score	
Place of practice	**No.**	**Mean**	**Std. Deviation**
Urban	62	8.9	2.52
Peri Urban	28	9.2	2.37
Rural	14	9.3	2.02
Total	104		

F- statistic = 0.24 on 2.101 d.f. p = 0.79 (not significant)

Root Mean Square Error = 2.42

The F-statistic is a comparison of a continuous variable between groups. The higher the F the greater the difference between the composite scores. There is no evidence from the data in table 3.9 that the mean composite score differs between general practitioners from different places of practice.

Table 3.10 Length of practice and composite score

		Composite score	
Length of practice	**No.**	**Mean**	**Std Deviation**
5 years or fewer	33	8.3	2.17
6 - 10 years	36	9.02	2.68
> 10 years	35	9.7	2.18
Total	104		

F-statistic = on 2.101 d.f. p = 0.074 (not significant at the 5% level)

Root Mean Square Error = 2.36

There is some evidence from data in table 3.10 that the mean score increases with the increasing length of practice. However, this is not statistically significant at the 5% level.

Table 3.11 Number of cases seen and composite score

		Composite score	
No. of cases seen.	**No.**	**Mean**	**Std. Deviation**
None	13	8.2	2.05
1 - 3	42	8.5	2.35
4 - 6	20	9.4	2.50
> 6	27	9.9	2.46

F-statistic = 2.57 on 3.98 d.f. p = 0.058 (not significant at the 5% level)

Root Mean Square Error = 2.35

Thus from table 3.11 there is evidence that the mean score increases with increasing number of cases seen but this difference is not significant at the 5% level.

Table 3.12 Access to support and composite score.

		Composite score	
Access to support	**n**	**Mean**	**Std. Deviation**
Always	35	10.3	2.49
Sometimes	38	8.4	2.13
Never	30	8.4	2.14

F-statistic = 7.70 on 2.11 d.f. p = 0.0008 (significant)

Root Mean Square Error = 2.26

The data in table 3.12 shows overwhelming evidence that the mean score is higher for general practitioners who always have access to support than it is for general practitioners who sometimes or never have access to support.

3.1.2 A comparison between the groups at baseline.

The experimental and control groups were compared at baseline, firstly on the sociodemographic characteristics (questions 1 - 4), and secondly on the responses in particular the response to question 10 (whether they felt able to deal with the cases of child abuse) and the overall composite score.

Table 3.13 Place of practice by group

	Group		
Place of practice	**Experimental**	**Control**	**Total**
Urban	20 (46.5%)	42 (68.9%)	62
Peri Urban	15 (34.9%)	13 (21.3%)	28
Rural	8 (18.6%)	6 (9.8%)	14
Total	**43**	**61**	**104**

Chi-square= 5.28 on 2 d.f. p = 0.07 (approaching significance)

The analysis of the data in table 3.13 shows that there is difference between the experimental and control group with respect to the place of practice at a level which approaches significance. The medical practitioner in the control group is more likely to come from an urban area than a practitioner from the experimental group. This bias occurred in spite of a random selection of subjects using the telephone book random number allocation method. This means that the place of practice could act as a potential confounder when comparing groups. The effect is decreased by the paired design.

Table 3.14 Length of practice by group.

	Group		
Length of practice	**Experimental**	**Control**	**Total**
5 years or less	15 (34.9%)	18 (29.5%)	33
6 - 10 years	14 (32.6%)	22 (36.1%)	36
Over 10 years	14 (32.6%)	21 (34.4%)	35
Total	**43**	**61**	**104**

Chi-square = 0.345 on 2 d.f. p = 0.84

The length of practice distribution as reflected by the data in table 3.14 is very similar for the two groups.

Table 3.15 Number of cases seen per year by group

	Group		
No. of cases per year	**Experimental**	**Control**	**Total**
None	3 (7.1%)	10 (16.7%)	13
1 - 3	18 (42.9%)	24 (40.0%)	42
4 - 6	7 (16.7%)	13 (21.7%)	20
Far more	14 (33.3%)	13 (21.7%)	27
Total	**42**	**60**	**102**

Chi-square = 3.39 on 2 d.f. p = 0.335

(Missing data 2)

From Table 3.15 above there is no evidence to suggest that the distribution of the number of cases seen is different between the two groups.

Table 3.16 Access to team support by group

	Group		
Access to support	**Experimental**	**Control**	**Total**
Always	8 (18.6%)	27 (45%)	35
Sometimes	24 (55.8%)	14 (23.3%)	38
Never	11 (25.6%)	19 (31.7%)	30
Total	**43**	**60**	**103**

Chi-square= 12.62 on 2 d.f. P = 0.002

(Missing data 1)

From Table 3.16 there is overwhelming evidence that the two groups differed with respect to access to support. This is a potentially important difference between the groups since we have seen that the ability to deal with cases of abuse is higher for general practitioners who always have access to a support team.

The group responses to questions 5 - 20, which deal with the awareness, knowledge and ability to manage child abuse are summarized below. For each question, the percentage giving a positive response in each group is given, together with the Chi-squared statistic which measures association between the response and the group and thus serves as a test of the difference between the two groups in the percentage responding "yes".

Table 3.17 Shows the proportion of medical practitioners giving a positive response (answering "yes") to child abuse awareness and management

Question	Exp		Control		Chi^2	p
	No.	%	No.	%		
5: Child abuse is a crime	42	97.7	60	100	1.43	0.23
6: Child abuse is a problem	31	72	42	68.8	0.03	0.59
7: Doctor's role is important in management	41	95.4	60	100	0.93	0.34
8: Skilled welfare intervention is important	41	95.4	57	93.4	0.17	0.68
9: Medical evidence is important	34	79	54	88.5	1.73	0.19
10: Able to manage child abuse	10	23.3	17	27.9	0.28	0.60
11: Willing to examine an abused child	36	83.7	54	88.5	0.06	0.08
12: Willing to submit a report	42	97.7	53	86.9	0.25	0.62
13: Willing to submit evidence in court	36	83.7	47	77.0	0.46	0.50
14a: More confident about physical abuse	28	65.1	45	73..8	1.19	0.28
14b:More confident about sexual abuse	7	16.3	6	9.8	0.90	0.34
15: Enough knowledge on physical abuse	15	34.9	28	45.9	1.26	0.26
16: Enough knowledge on sexual abuse	15	34.9	19	31.2	0.12	0.73
17: Know to whom to refer	25	58.1	35	57.4	0.01	0.76
18: Adequately prepared for court	11	25.6	14	23	0.01	0.76
19: Adequate undergraduate training	2	4.7	6	9.8	0.96	0.33
20: Adequate postgraduate training	5	11.6	8	13.	0.06	0.81

Table 3.18 Show a comparison of the recommendation for improving management between the experimental and control groups

Recommendations for improving management of child abuse	Exp. Group	Control group
Improved undergraduate training	77.8%	71.2%
Improved postgraduate training	69.6%	62.2%
The establishment of multidisciplinary teams	63.6%	51.5%
The streamlining of court appearances	29.6%	20.3%

The relative importance of the four different recommendations were very similar in the experimental and the control groups.

The composite score (Child Abuse Awareness Score) was compared between the two groups and the results summarized below.

Table 3.19 Comparison of composite scores between groups

Group	n	mean	s. d.	min	median	max
Exp.	46	8.39	2.96	1	8	14
Contr.	61	9.11	2.44	4	9	15

T = - 1.38 on 105 d.f. p = 0.17

Thus there is no evidence that the mean score differed between the experimental and the control groups (using the two sample t-test). Overall the two groups did not differ from each other as far as attitudes toward child abuse is concerned. They did differ with respect to two of the sociodemographic variables, namely access to a support team and to a smaller extent, to place of practice.

Finally the comparison of responses was redone (table 3.20), adjusting for the values of the socio-demographic characteristics. We have seen that these sociodemographic

variables have an effect on the attitudes to child abuse. Thus, a comparison was made between groups on whether or not the general practitioner felt able to manage child abuse (question 10) and the composite score (Child Abuse Awareness Score), adjusting for socio-demographic factors.

In the case of whether or not the general practitioner felt able to manage cases of child abuse, our response is binary (i.e. "yes" or "no") and the relevant statistical technique is a multiple regression model, whilst for the composite score a general linear model (analysis of covariance model) was used.

For each factor the parameters are relative to a baseline (urban for place of practice, <5 years for time of practice, 0 cases for number seen per year, "always" for access to support and experimental for group).

Thus, for example, general practitioners seeing ≥ 7 cases per year are about 5 times more likely to feel able to manage cases as those seeing no cases; general practitioners who only sometimes have access to support are 0.17 times ($< 1/5$) as likely to feel able to manage cases of child abuse as those who always have access to support.

Table 3.10 Comparison of ability to manage child abuse between groups using parameter estimates (adjusting for socio-demographic factors)

Parameter	estimate	s.e	t-stat	odds ratio	p-value
Constant	-1.44	1.10	-1.31		0.19
Place: peri urban	-0.113	0.61	-0.19	0.89	0.84
Place: Rural	0.259	0.78	0.33	1.30	0.74
Practice: 6-10 yrs.	0.760	0.65	1.16	2.14	0.25
Practice: >10yrs.	0.608	0.65	0.93	1.84	0.35
1-3 cases per year	0.558	0.92	0.60	1.75	0.55
4-6 cases per year	1.254	0.99	1.27	3.50	0.20
> 7 cases per year	1.656	0.98	1.69	5.24	0.091
Sometimes access to support	-1.790	0.68	-2.62	0.17	0.009
Never access to support	-1.231	0.63	-1.93	0.29	0.053
Group control	-0.181	0.57	-0.31	0.83	0.75

The most important conclusion to be drawn from this data however is that adjusting for sociodemographic factors, there is no evidence that the two groups differ with respect to the ability to manage cases. This is confirmed by the odds ratio of 0.83 which is very close to one.

Table 3.21 Comparison of total score between groups adjusting for sociodemographic factors (analysis of variance)

Source	d.f.	Type IIIss	ms	F	p-value
Place of practice	2	4.33	2.16	0.48	0.62
Length of practice (trend)	1	22.29	22.29	4.89	0.03
Number of cases seen (trend)	1	52.84	52.84	11.59	0.001
Access to support	2	60.48	30.24	6.63	0.002
Group	1	0.02	0.02	0.04	0.83
Residual	93	423.86	4.56		
Total	**100**	**581.84**			

Thus the composite score is strongly related to the number of cases seen and access to support (as seen in table 3.21). There is no evidence of difference between the groups (p-value 0.83). Adjusting for the socio-demographic factors there is no evidence that the score differs between the two groups. This is further borne out by the mean scores adjusted for the other factors. The experimental group has an adjusted mean score of 9.14 and the control group 9.24 resulting in a standard error difference of 0.42. We can therefore conclude that overall, as far as attitudes towards child abuse are concerned, there is no significant difference between the two groups.

3.1.3 A comparison of the change in the two groups

After the training intervention (for the experimental group only) each group was again given the questionnaire. Some of the participants dropped out, so we can firstly compare the proportion of participants who remained in each group, which is done in table 4.1 below:

Table 3.22 Proportion of general practitioners remaining in each group

	Status		
	Remained	**Dropped out**	**Total**
Experimental	25 (54.3%)	21 (45.7%)	46
Control	34 (55.7%)	27 (44.3%)	61
Total	**59**	**48**	**107**

Chi-square = 0.02 on 1 d.f. p = 0.89

Thus the drop out rates are very similar between the two groups.

Next the change in composite score was compared between the two groups:

for each general practitioner the change was the difference between the final score (after intervention) and the baseline score. The distribution of change for the two groups is summarized below.

Table 3.23 Summary statistics for change in composite score by group

	Group	
	Experimental	**Control**
n	25	34
Mean	1.48	0.147
Std. Deviation	1.92	2.36
t: mean = 0	3.86 (p = 0.0008)	0.36 (p = 0.72)

Thus the experimental group showed a significant increase in the mean score, while for the control group the mean score did not differ significantly from baseline. The change in the score was then compared between groups using an analysis of covariance model adjusting for initial score and the socio-demographic variables. The results are summarized in table 3.23:

Table 3.24 Comparison of change in score between groups adjusting for sociodemographic factors

a. Analysis of variance

Source	**d.f.**	**Type IIIss**	**ms**	**F**	**p-value**
Initial score	1	14.69	14.69	3.52	0.067
Place of practice	2	13.25	6.62	1.59	0.21
Length of practice (trend)	1	2.62	2.62	0.63	0.43
No. of cases (trend)	1	3.61	3.61	0.87	0.36
Access to support	2	8.80	4.40	1.05	0.36
Group	1	10.28	10.28	2.46	0.12
Residual	49	204.52	4.17		
Total	**57**	**292.78**			

The change in score does not differ between the two groups using the F test. The table above takes into account the factors which may make the score change.

b. Adjusted mean change in score

The adjusted mean change in score for the experimental group was 1.28 and the control group 0.30 with a standard error difference of 0.54. The adjusted score indicates that similar people were compared.

Thus, while the experimental group had a larger increase in the composite score than the control group, this difference is not statistically significant i.e. there is not enough evidence to conclude that the change in composite score is greater for the experimental group than for the control group. This could partly be due to the loss in power due to the high drop out rate (about 45% overall) between the initial and the follow up periods.

For the categorical variables (e.g. Question 10) each subject was categorized as deteriorating (changing from "yes" to "no"), not changing (i.e. "yes": "yes" or "no" : "no") or improving (changing from "no" to "yes"). The proportion of general practitioners in each of these categories was then compared using Armitage's chi-squared test for trend i.e. the change in response was analyzed using Prescott's test (Jones & Kenward,1989), as discussed in the introduction.

The results are presented below:

Table 3.25: Ability to deal with child abuse (Question 10)

Group	Deteriorate	No change	Improve	Total
Experimental	1 (4%)	17 (68%)	7 (28%)	25
Control	4 (11.8%)	23 (67.6%)	7 (20.6%)	34

Chi-square for trend = 1.09 p= 0.296

Thus there is no evidence that the change in perceived ability to deal with child abuse differs between groups (although a higher proportion of the experimental group improved and a higher proportion of the control group deteriorated).

Table 3.26: Knowledge of physical abuse (Question 15)

Group	Deteriorate	No change	Improve	Total
Experimental	0	13 (52%)	12 (48%)	25
Control	5 (14.7%)	23 (67.6%)	6 (17.6%)	34

Chi-square for trend = 8.43 p = 0.0037

There is overwhelming evidence that there was a greater improvement in the knowledge of physical abuse in the experimental group compared to the control group.

Table 3.27. Knowledge of sexual abuse (Question 16)

Group	Deteriorate	No change	Improve	Total
Experimental	0	21 (84%)	4 (16%)	25
Control	5 (14.7%)	21 (61.8%)	8 (23.5%)	34

Chi-square for trend = 0.27 p = 0.61

Thus there is no evidence that the change in knowledge in sexual abuse is different for the two groups.

Table 3.28. Knowledge of referral of cases of abuse (Question 17)

Group	Deteriorate	No change	Improve	Total
Experimental	2 (8%)	17 (68%)	6 (24%)	25
Control	5 (14.7%)	24 (70.6%)	5 (14.7%)	34

Chi-square for trend = 1.21 p = 0.27

Thus there is no evidence that the change in knowledge of referral of cases is different for the two groups.

4.0 DISCUSSION.

4.1 General discussion.

Literature from countries in the western world has shown child abuse to be an increasing problem which is facing medical professionals (Hampton & Newberger, 1984). The role of the medical practitioner has been emphasized by legislation both in South Africa and in most westernized countries enforcing both the identification and the reporting of child abuse. The "Child Care Amendment Act, 1996", emphasizes that medical practitioners among other health care workers are obliged to notify the Director-General on suspicion of a deliberate injury to a child. Contravention of this law would make the doctor liable to prosecution. This "Act" also implies a protection against legal proceeding should the notification have been made in good faith. The implication of this act is that medical practitioners are expected to know of both the existence and the content of the "Act".

Certain states in America, have legislated that medical practitioners have an acceptable level of competence and knowledge of child abuse, by requiring that mandatory reporters undergo training prior to registration to work in the state (Saulsbury & Hayden, 1986). While in New Zealand a group of medical practitioners are lobbying that only accredited medical practitioners be allowed to do the forensic examination of victims of sexual crimes (Shand & Broadmore, 1996). In South Africa there is currently no formal requirement that training in child abuse management to be done either at under-graduate level or at post -graduate level for general practitioners or district

surgeons who are required by statute to do forensic examinations (personal observation).

The main reasons identified in overseas literature for the reluctance to do child abuse management is a lack of training in both making a diagnosis of child abuse and in giving evidence in court. It reports an advance, since the 1980s, in both the knowledge and willingness to become involved in child abuse reporting. This has been directly associated with improved training programs at both undergraduate and postgraduate level (Atias & Goodwin, 1985). There is very little documented research in South Africa looking at the training of medical practitioners in child abuse management.

The medical practitioners in this survey reported the main reasons for their reluctance to manage cases of child abuse was a lack of training both in the management of abuse and giving evidence in court. Lack of time to go to court and lack of confidence in the benefit to the child were considered less important (page 22). They reported that neither their under-graduate nor their post-graduate training adequately prepared them to manage cases of child abuse (page 22).

The sample of general practitioners studied showed an unequal distribution in their region of practise with the majority (59.6%) practising in the urban areas (table 3.1). However, there did not appear to be a relationship between the area in which the general practitioner practised and his/her perceived ability to manage child abuse (Table 3.5). There was a trend toward an improved ability to manage child abuse when a greater

number of cases were seen (Table 3.7) and with more years in practice (Table 3.6). The latter is in contrast to overseas literature which report an improved confidence in managing child abuse in more recent graduates because of a greater emphasis on child abuse training programs in recent years (Ladson, Johnson & Dory, 1987; Wilson & Wissow, 1992). There is a strong relationship between the general practitioners perceived ability to manage child abuse and his access to a support team (Table 3.8). This correlates with overseas reports which emphasize the importance of a multi-disciplinary approach in both the training programs and the management of child abuse.

This survey (questions 5-9), has shown medical practitioners to have a high level of awareness as to the importance of their profession in child abuse management (pages 22). Contrary to expectations the majority of the group showed a willingness to personally become part of the management team by examining the child, writing reports and going to court (questions 10-14, page 22). This disproves the hypothesis that medical practitioners are unwilling to be involved in child abuse management. However, in contrast to the willingness expressed only 26% (question 10, page 22) of the group felt able to manage child abuse.

The reluctance expressed with regard to child abuse management was mainly associated with the perception of being inadequately trained to identify, appropriately refer and give evidence in court (questions 14-18, pages 23). A large number of the doctors showed a lack of knowledge of the physical signs of both physical (41.3%) and sexual abuse (32.7%), and agencies to which the child should be referred if child abuse is suspected

(57.7%). Most of the group (76%) did not feel sufficiently well prepared in court procedure to give evidence in court competently. Breakdown of the professional relationship with the family of the child and the reluctance to spend time in court noted in overseas literature was mentioned but was not an important factor in this survey.

The main recommendations in this survey for the improvement of the medical management of child abuse were the increase of both under- and post-graduate training in child abuse management and the development of multi-disciplinary teams for the management of child abuse. Contrary to expectations and overseas research, streamlining of court appearances to decrease time in court was not considered as important as the other reasons (question 21, page 23). This may be explained by the small number of abuse cases actually being recognized by the practitioners surveyed and consequently, infrequent court attendance.

The experimental group of general practitioners differed from the control group in that more of the control group worked in an urban area (table 3.13) and had access to a support team (table 3.16). The place of practice was not shown to significantly influence the general practitioners perceived ability to manage child abuse (table 3.5) whereas the access to a support team had a highly significant association (table 3.8). In spite of this tendency in access to a support team in the control group there was no difference in the perceived ability to manage child abuse in the two groups (23.3% in the experimental group and 27.9% in the control group).

4.2 Limitations and constraints

The value of this research is limited by the small sample size. A larger sample may have shown a more significant effect of training on knowledge. More careful wording of the questions could have more clearly differentiated between a reluctance or an inability to manage cases of child abuse.

The high drop out rate of 45.7 % has a influence on the significance of the findings. A comparison between the group completing the study and the group that dropped out should have been done as it could have had an influence on the validity of the results.

Valuable information may also have been lost by not differentiating between state and privately employed practitioners. The effect of gender on attitudes was not explored and may have revealed interesting information.

The study population cannot be generalized to the general population of general practitioners as it was drawn from a subgroup of the population that had an interest in further education and a further interest in learning about the management of child abuse. However, the aim of this study was to test the effectiveness of a correspondence training programme as a training tool therefore the bias in the study population does not invalidate the results.

5.0 CONCLUSIONS AND RECOMMENDATIONS

A survey of the literature has shown a lack of research in South Africa into the problems facing medical practitioners in their management of child abuse including the nature and amount of training being given at undergraduate level.

This survey shows an awareness amongst this group of medical practitioners of the importance of their role in child abuse management and their willingness to be part of the process of child abuse management. They confess to a lack of the knowledge required to identify, adequately refer and represent children in court when required to do so. A lack of training at both undergraduate and postgraduate level is seen as the main reason for their not being able to adequately manage child abuse.

The high drop out rate (45.7% in the experimental group, 44.3% in the control group) could be explained by the duration of the course (up to two years due to postal problems) and the commitment needed from the general practitioners to study the training material. Although the presentation and the content of the course material may be a factor 99% of the doctors responding found the course useful. The one doctor who did not find the course useful requested more diagrammatic information on the physical manifestations of sexual abuse.

The groups were similar for all the other parameters measured namely attitudes to child abuse (questions 5-9, pages 22), willingness to manage child abuse (questions 11-14, page 22.23), knowledge of the physical manifestations of physical and sexual abuse, to whom abused children should be referred and ability to give evidence in court. They

were also similar in the amount of training in child abuse management they had received and their recommendations on how to improve the management of child abuse.

After exposure to a training program the experimental group showed a larger increase in the composite score than the control group but the difference was not significant (table 3.23). This could be due to the loss of power due to the high drop out rate. Neither was there evidence that the change in perceived ability to manage child abuse differed between the two groups (table 3.25), although a higher proportion of the experimental group improved and the control group deteriorated. There was however a significant improvement in the perceived knowledge about physical abuse in the experimental group compared to the control group (table 3.26). This improvement was not seen in their knowledge of sexual abuse (table 3.27) or their knowledge of the referral of cases (table 3.28). The lack of good photographic illustrations in the course to adequately describe the anatomical variability and changes in the female genitalia due to abuse could explain the greater improvement in knowledge of the physical findings of physical compared to sexual abuse.

The limited improvement in the experimental group found in this study is similar to that of studies done overseas, namely that there is a correlation between the amount of training given to practitioners and their ability to manage cases of child abuse. Although written material has some value, interactive training, especially in multidisciplinary teams has been found to be much more effective, not only in the acquisition of knowledge but

also in the development of the service (Davis, Thomson, & Oxman, 1992; Gallmeier & Bonner, 1992; Palusci & McHugh, 1995).

An improvement in the training of medical practitioners is strongly recommended as one of the solutions to improving their management of child abuse. The inadequacy of a limited training course has been underlined by this study and further research is needed into the development of appropriate interactive, multidisciplinary training programs and the development of multidisciplinary child abuse management teams as suggested in the overseas literature.

The lack of integration of the various government departments has resulted in the introduction of mandatory reporting by the welfare department without concomitant negotiation with the Department of Health to ensure the appropriate training of medical professionals. It is recommended that this issue should be addressed by the South African Medical and Dental Council whose responsibility it is that local graduates and doctors entering the country are adequately trained to meet the needs of the country.

REFERENCES

Alexander RC. Education of the physician in child abuse. Pediatric Clinics of North America 1990; 37: 971-987.

Armitage D, Berry G. Armitage's test for trend. Statistical methods in medical research. 2nd ed. Blackwell Scientific Publications, 1987.

Atias R, Goodwin J. Knowledge and management strategies in incest cases: A survey of physicians, psychologists and family counselors. Child Abuse and Neglect 1985; 9: 527-533.

Badger L W. Reporting of child abuse: Influence of characteristics of physician, practice and community. Southern Medical Journal 1989; 82: 281-286.

Benson D E, Swann A, O' Toole R, Turbett J P. Physicians' recognition of and response to child abuse: Northern Ireland and the U.S.A. Child Abuse and Neglect 1991; 15: 57-67.

Child Care Amendment Act. Number 96 1996. Amendment of section of Act 74 of 1983, as substituted by section 15 of Act 86 of 1991. Government Gazette 22 November 1996.

Child Protection Unit. National statistics of crimes against children. 1997; National Child Protection Services, Pretoria.

Davis D A, Thomson M A, Oxman A D, Haynes R B. Evidence for the effectiveness of CME: A review of 50 randomized controlled trials. Journal of the American Medical Association 1992; 268: 1111-1117.

Dorsey K J, Gocey J, Murrell K, Rinderer-Rand H, Hall C, Myers J H. Medical student response to an interactive patient simulation program used to supplement child abuse education. Child Abuse and Neglect 1996; 20: 973-977.

Dubowitz H. Child abuse programs and pediatric residency training. Pediatrics 1988; 82: 477-480.

Dubowitz H. Prevention of child maltreatment: What is known? Pediatrics 1989; 570-577.

Dubowitz H. Pediatrician's role in preventing child maltreatment. Pediatric Clinics of North America 1990; 37: 989-1011.

Eisenberg N, Glynn Owens R, Dewey M E. The attitude of health care professionals to child sexual abuse and incest. Child Abuse and Neglect 1987; 11: 109-116.

Gilgun J F. Decision making in interdisciplinary treatment teams. Child abuse and neglect 1988; 12: 231-239.

Gallmeier T M, Bonner B L. University-based interdisciplinary training in child abuse and neglect. Child Abuse and Neglect 1992; 16: 513-521.

Hampton R L, Newberger E H. Child abuse incidence and reporting by hospital: Significance of severity, class and race. American Journal of Public Health 1985; 75: 56-59.

Harris A. General practitioners and child protection case conferences. British Medical Journal 1991; 302: 1354.

Hefler R E. Where to now, Henry? A commentary on The Battered Child Syndrome. Pediatrics 1985; 76: 993-997.

Herman-Giddens M E, Frotheringham T E. Examination of pre-pubertal female genitalia for evidence of sexual abuse. Pediatrics 1987; 80: 203-208.

Hibbard R A, Serwint J, Connolly M. Educational program on evaluation of alleged sexual abuse victims. Child Abuse and Neglect 1987; 11: 513-519.

Hibbard R A, Zollinger T W. Patterns of child sexual abuse knowledge among professionals. Child Abuse and Neglect 1990; 14: 347-355.

Jackson H, Nuttall R. Clinician responses to sexual abuse allegations. Child Abuse and Neglect 1993; 17: 127-143.

James J, Womack W M, Strauss F. Physician reporting of sexual abuse of children. Journal of the American Medical Association 1978; 240: 1145-1146.

Jones B, Kenward M G. Prescott's test: Design and analysis of cross over trials. Chapman & Hall, London 1989; 98-100.

Johnson C P. Residency training and child abuse. Pediatrics 1988; 83: 805-806.

Kempe C H. Another hidden pediatric problem. The 1977 C. Anderson Aldrich Lecture. Pediatrics 1978; 383-387.

Krugman R D. The future role of the pediatrician in child abuse and neglect. Pediatric Clinics of North America 1990; 37: 1003-1012.

Ladson S, Johnson C F, Doty R E. Do physicians recognize sexual abuse? American Journal of Diseases of Childhood 1987; 141: 411-415.

McDowell M J, Eriksen J. Knowledge of sexual abuse in children by the general practitioner. The Medical Journal of Australia 1989; 151: 52.

Moore P, Hudson P, Loda F. Child medical evaluation program: A statewide system for the medical and mental health evaluation of abused and neglected children. Forensic Science International 1986; 30: 119-126.

Morris J L, Johnson C F, Clasen M. To report or not to report. American Journal of Diseases of Childhood 1985; 139:194-198.

Morrow G. Residency training in the management of child abuse. Pediatrics 1988; 82: 513-514.

Nedcor Project on crime, violence and investment. Funded and published by Nedcor Ltd as a public service. Johannesburg. June 1996.

Pagel J R, Pagel P C. Participants' perceptions of a mandated training course in the identification of child abuse. Pediatric Nursing 1993; 19: 554-559.

Palusci V J, McHugh M T. Interdisciplinary training in the evaluation of child sexual abuse. Child Abuse and Neglect 1995; 19: 1031-1038.

Saulsbury F T, Hayden G F. Child abuse reporting by physicians. Southern Medical Journal 1986; 79: 585-587.

Saulsbury F T, Campbell R E. Evaluation of child abuse reporting by physicians. American Journal of Diseases of Children 1985; 139: 393-395.

Shand M C, Broadmore J A. Doctors for sexual abuse care (DSAC). Accreditation: A New Zealand model for ensuring competence of sexual abuse medical examiners. ACAPAP Conference 1996; Dublin. May 1996.

Shor R, Haj-Yahia M M. The approach of Israeli Health and Mental Health students toward child maltreatment. Child Abuse and Neglect 1996; 20: 425-435.

Socolar R S. Physician knowledge of child sexual abuse. Child Abuse and Neglect 1996; 20: 783-790.

Stone D H. Design a questionnaire. British Medical Journal 1993; 307: 1264-1266.

Faculties of dentistry & medicine. Style guide for theses, dissertations and research reports. University of the Witwatersrand. 1995.

Warner J E, Hansen D J. The identification and reporting of physical abuse by physicians: A review and implications for research. Child Abuse and Neglect 1994; 18: 11-25.

Warner-Rodgers J E, Hansen D J, Spieth L E. Influence of case and professional variables on identification and reporting of physical abuse : A study with medical students. Child Abuse and Neglect 1996; 20: 851- 866.

White B D, Hickson G B, Theriot R, Zaner R M. A medical ethics issues survey of residents in five pediatric training programs. American Journal of Diseases of Childhood 1991; 145: 161-164.

Willis S E, Horner R D. Attitudes experience and knowledge of family physicians regarding child sexual abuse. The Journal of Family Practice. 1987; 25: 516-519.

Winefield H R, Castell-McGregor S N. Experiences and views of general practitioners concerning child sexual abuse . The Medical Journal of Australia 1986; 145: 311-313.

Wissow L S, Wilson M E H. The use of epidemiological data in the diagnosis of physical child abuse: variations in response to hypothetical cases. Child Abuse and Neglect 1992; 16: 45-55.

Woolf A, Taylor L, Melnicoe L, Andolsek K, Dubowitz H, De Vos E, Newberger E. What residents know about child abuse. American Journal of Diseases of Childhood 1988; 142: 668-672.

APPENDIX A

CONFIDENTIAL

CHILD ABUSE MANAGEMENT

QUESTIONNAIRE

NAME OF DOCTOR: ..... STUDY NO.....

CONTACT ADDRESS: ..... Q.NO. .....

.....

.....

TEL. NUMBER: .....

CHILD ABUSE MANAGEMENT QUESTIONNAIRE.

FOR OI

1. Where have you practiced for most of your career?

City	Town	Township	Peri-urban	Rural	Homelands	

2. How long have you been in practice? .....yrs. ☐

3. Approximately how many cases of child abuse do you see a year? ☐☐☐

.....

4. Do you have access to a support team whom you can consult on the management of a child abuse case?

Always 1	Sometimes 2	Never 3	

5. Do you agree that child abuse is a crime?

Yes 1	No 2	Uncertain 3	

6. Do you consider child abuse to be a significant problem to the society in which you work?

Yes 1	No 2	Uncertain 3	

7. Do you agree that a medical practitioner has a role in the management of child abuse?

Yes 1	No 2	Uncertain 3	

8. Do you think that intervention by competent skilled welfare authorities in identified cases of child abuse will be of long term benefit to the child?

Yes 1	No 2	Uncertain 3	

9. Do you feel that your medical evidence could have an important influence on the outcome of the court case?

Yes 1	No 2	Uncertain 3	

10. Do you feel able to manage cases of child abuse?

Yes 1	No 2	Uncertain 3	

If "NO" - Rank in order of importance which of the reasons given below would in your opinion best explain your reluctance to manage cases of child abuse. (1= most important to 6= least important).

	Inadequate training in the diagnosis and management of child abuse.	
	Lack of training in giving evidence in court.	
	Lack of time to go to court.	
	Lack of a community structure to refer the child to after a diagnosis has been made.	
	Your lack of confidence that notification of the abuse will be of any significant benefit to the child.	
	Other:	

11. Would you be willing to examine a child where abuse is suspected?

Yes 1	No 2	Uncertain 3	

If "yes" answer questions 12 and 13, otherwise skip to 14.

12. Would you be willing to submit a written report on your findings to the police?

Yes 1	No 2	Uncertain 3	

13. Would you be willing to submit evidence in court?

Yes 1	No 2	Uncertain 3	

14. About which form of abuse do you feel more confident when submitting evidence in court ?

Physical 1	Sexual 2	Uncertain 3	

15. Do you have enough knowledge on the clinical manifestations of physical abuse to readily make a diagnosis?

Yes 1	No 2	Uncertain 3	

16. Do you have enough knowledge on the physical manifestations of sexual abuse to readily make a diagnosis?

Yes 1	No 2	Uncertain 3	

17. Once a diagnosis of child abuse has been made do you know whom to refer the case to for further investigation and management?

FOR OI

Yes 1	No 2	Uncertain 3	

18. Do you feel adequately prepared in court procedure to competently give evidence in court?

Yes 1	No 2	Uncertain 3	

19. Do you feel that your under- graduate training adequately prepared you to manage cases of child abuse.?

Yes 1	No 2	Uncertain 3	

20. In your opinion have you experienced enough post- graduate training in the management of child abuse to enable you to handle these problems.

Yes 1	No 2	Uncertain 3	

21. Select from the following suggestions and rank in order of importance those you would consider to be the most useful in improving the medical management of child abuse. (range from 1 = most important to 5 = least important).

improved training at under graduate level.

post graduate courses in child abuse management.

establishment of multi-disciplinary child abuse management teams.

streamlining of court appearances so that a minimal amount of time is spent in court.

Other: .....

22. Would you like to undergo a correspondence training course in child abuse management?

Yes 1 | No 2

If "yes", state reasons:.....

.....

..

If "no", how would you be prepared to answer a follow up questionnaire in a years time? .....

CHILD ABUSE MANUAL FOR GENERAL PRACTITIONERS.

MODULE 1

INTRODUCTION TO CHILD ABUSE

Child abuse is not a new problem. History shows a movement from the time when a child was considered the possession of his father to deal with as he wished, to a society where children can sue their parents if they feel that they are disadvantaged due to the action of a parent. The heightened awareness to a certain extent reflects the greater value society attaches to children's rights as individuals. The result of this heightened awareness is that doctors are now faced by a so called "new" problem, namely CHILD ABUSE.

Physical abuse as an entity was first described by a radiologist Caffey in 1940's when he recognised a syndrome of recent and old fractures to be due to non-accidental injuries. The pioneer of child abuse management was Dr. Kempe. He established a child abuse management team in the 1960's.

Sexual abuse has been increasingly recognised over the past 10 years, partly due to a greater openness about sex. Discussions with children at schools about appropriate sexual behaviour has led to children disclosing inappropriate sexual behaviour occurring within the home. The increase in reported cases can therefore best be attributed to a greater public awareness, better professional recognition, and an unwillingness by society to tolerate the abuse of children.

For medical practitioners, therefore, a new field of paediatrics has developed for which many have received very little formal training. Social and moral constraints also do not assist in gaining the knowledge. For instance, genitalia of little girls are usually examined only if indicated by a specific problem relating to this area and not routinely as occurs in other areas such as the chest. Thus we are often vague as to the normal anatomy and the anatomical variations found in children, especially girls. An additional problem is that the medical problem is only part of a complex social or socio-economic scenario involving a wide range of skills. Without the assistance of a much wider team including both the legal and social services we are often powerless in being of meaningful assistance to the child.

The aim of this course is to give the general practitioner an insight into the identification of the problem, their role in the management and the legal issues relating to child abuse.

2. EPIDEMIOLOGY

Notified cases of child abuse increase every year. In 1991 the Child Protection Unit handled 12 039 reports of crimes against children. The greatest number of reports were against white children. The reports are likely to be biased by socio-economic factors and to under-represent the true size of the problem. Roy Meadow of Leeds, England reports 20 times as many notifications to social services of child abuse than occurred 10 years ago (1). The question arises whether this reflects a true increase in child abuse or rather a heightened awareness to the problem as support services are developed.

Definitions of child abuse :

Meadows defines child abuse in terms of culture. A child is considered abused if he or she is treated in a way that is unacceptable in a given culture at a given time. This definition highlights the one of the difficulties sometimes faced in multi- cultural societies in deciding whether action by parents can be considered abusive. One must also be aware of changing attitudes within a society over time. As an example, the extent and degree of corporal punishment which was acceptable in white society a generation ago is no longer generally acceptable today.

Child abuse was also defined by the Johannesburg Child Abuse Liaison Committee in 1983. Child abuse was taken to be the interaction or lack of interaction between a child and his/her parent and/or other caregiver which results in non-accidental harm to the child's physical and/or developmental state.

TYPES OF ABUSE

Physical abuse (non-accidental injury) - this involves a considered physical injury to a child that is inflicted purposefully with the intention of injury by any person. The person may be a parent, caretaker or stranger (2).

Child neglect and inadequate care involves failure of a parent or caretaker to provide a child with sufficient nourishment, supervision, medical care, clothing, shelter, comfort, stimulation and when the parent or caretaker abandons the child. (2)

Emotional abuse refers to the intentional use of language/attitudes/ behaviour to damage the self-image of the child. It includes mental cruelty such as terrorizing or rejection. This compares to the emotional neglect which occurs when the child does not receive affection or guidance from his parents. (2)

Sexual abuse involves the exposure of a child to sexual stimulation inappropriate to the child's level of psycho-social development or role in the family. The abuse can occur within or outside the family structure. (2)

3. FACTORS PREDISPOSING TO CHILD ABUSE

The reason why a child is abused appears to be due to the interaction between factors intrinsic to the abuser, the child and the environment in which they live. This explains why one child in a family may be abused while a sibling is safe. A knowledge of these risk factors could be of value in alerting a doctor to the family in which the children may be at risk for abuse.

Factors in the child which predispose him/her to abuse:

All children are not equally at risk of being abused. An infants temperament may influence the way her parents behave towards her. Although an infant usually engenders loving behaviour some infants are limited in their ability to engender and reinforce parenting. This group includes congenitally abnormal, handicapped or difficult premature babies, successive pregnancies, unwanted babies or children that fail to meet up to their parents expectations.

Different stages of development place different strains on the parent-child relationship. A parent who copes with a lovely placid baby may not cope when it turns into an inquisitive, demanding toddler.

Some emotionally deprived children deliberately evoke anger as their only means of getting attention.

Characteristics of the abusing parent.

"We believe we see in the abused infant's development an enactment of what went on in the parent's own infancy" [Steele 1970]. The parents' own deprived childhood causes them to have limited emotional resources to cope with stress, anger and frustration. They have poor socialisation skills and lack of trust in others. This results in a difficulty in developing relationships. Thus they are poorly able to develop and use support systems."

Factors which cause emotional stress or instability in the parents such as alcohol or drug abuse, unemployment or marital stress can precipitate child abuse. Alcoholism, addiction and psychosis are additional family stresses predisposing to child abuse.

The incidence of reported abuse is highest amongst lower socio-economic groups. Nevertheless, abuse is not confined to any socio-economic, cultural, racial or religious subset. My impression is however, that the nature of the abuse is influenced by social class and that emotional abuse may be more common in higher socio-economic groups whereas physical abuse occurs more commonly in lower. Sexual abuse is found in all strata of society although it may manifest in different ways.

For the purpose of this paper the abused child will be referred to as a girl. Although girls are more commonly sexually abused other forms of abuse are equally common in both sexes.

Environmental factors which predispose to abuse

Environmental factors can modify stresses occurring in the family. It has been found that socially isolated families and mobile families e.g. members of the armed forces, where there is a poor support system have a higher incidence of child abuse.

In South Africa many families live in areas where poverty and overcrowding make it difficult for parents to adequately protect their children from abuse by neighbours or strangers. The increasing need for two breadwinners limits the time available to parents to protect their children.

Awareness about the commonness and of the wide variety of forms abuse takes is important if the doctor is going to recognise child abuse and help the child, sometimes by saving his or her life.

THE ROLE OF THE DOCTOR IN CHILD ABUSE MANAGEMENT.

Child abuse management is, for many practitioners, an aspect of paediatrics to which they have not been previously or extensively exposed. As child abuse is as much a social problem as a medical problem it may be difficult for the practitioner to identify his role as part of the team. It is important that the practitioner sees himself as part of this team rather than an individual trying to cope with the problem.

The advantage of working within a team structure is that decisions can be made jointly considering the problem from different points of view, the aim being to give a more holistic assessment. The sharing of concerns and responsibility makes the management less stressful for individual members of the team. A team may have to be built up around an individual case. This is time consuming.

The points below will serve as a guideline for practitioners in defining their role in the team. The individual points will be considered further in the rest of the course.

1. Identification of the problem.
2. Reassurance and guidance for the child and his/her parents.
3. Referral to appropriate agencies for help.
4. Identification and referral for treatment of medical and emotional complications of abuse.
5. To provide medico-legal evidence if required.
6. When necessary to take steps to protect the child from ongoing abuse.
7. A partner in multi-disciplinary team in the management of the abused child.
8. Registration of the abuse with the local Department of Welfare may not necessarily mobilise an investigation of the abuse and help for the child, but will assist in collecting data for planning of services.

REFERENCES

1.Meadows R. ABC of Child Abuse. BMJ Publishing group 1993.
2.Lachman P. Child abuse register. (unpublished) 1993.
3.Jacklin L.B. Review of child abuse in the South African white urban society. Leech 1989; 58: 4-7

MODULE 1

NAME .....
ADDRESS .....
TEL.NO. .....

PLEASE CIRCLE THE CORRECT RESPONSE AND RETURN IN THE ATTACHED ADDRESSED ENVELOPE OR FAX TO ME AT 011 642-6027.

1	Child abuse is a new problem and reflects the decadence of a modern society.	TRUE/FALSE
2	A team consisting of social, legal as well as medical services are necessary to be of meaningful assistance to an abused child.	TRUE/FALSE
3	An understanding of the culture in which the child lives is important when deciding whether the child has been abused.	TRUE/FALSE
4	Physical abuse refers to all forms of injury to children.	TRUE/FALSE
5	Functioning as part of a team is important in decreasing the stress associated with child abuse management.	TRUE/FALSE
6	Emotional abuse and neglect does not have physical signs and therefore cannot be diagnosed by a medical practitioner.	TRUE/FALSE
7	A family history is of little value in identifying a parent with a predisposition towards abusing his/her child.	TRUE/FALSE
8	Severely deprived children may deliberately provoke a caregiver into abusing them as a means of gaining attention.	TRUE/FALSE
9	The reason why one child is abused and not another is due to the complex interaction between the child, the abuser and the environment in which the child lives.	TRUE/FALSE
10	Sexual abuse always occurs within the family and therefore always requires removal of the child.	TRUE/FALSE

MODULE 2.

NON ACCIDENTAL INJURY

"Child abuse is the difference between a hand on the bottom and a fist in the face." HENRY KEMPE.

The most difficult part of diagnosing non accidental injury is thinking of it in the first place. There are many reasons why doctors emotionally struggle to consider this as a diagnosis. However, in a small but significant number of cases this may be a life or death decision for the child.

Non accidental injury is a symptom of a disturbed parent-child relationship rather than a full diagnosis. It may be associated with both emotional abuse and neglect, and occasionally sexual abuse which if allowed to continue will cause irreparable harm to the child. The aim of intervention is not only to ensure that the child is safe but where possible to remedy the disturbed child-parent relationship. Once suspicion has been aroused, a picture must be constructed of the child's environment e.g. living situation, stresses and emotional support systems.

Indicators of non accidental injury

One or more of the following factors should alert one to the possibility of abuse. (however none are diagnostic or exclude abuse if absent):

- a history which is incompatible with the degree or nature of the injury
- is developmentally impossible
- is vague as to how or when it occurred
- changes when repeated to different people
- changes when parents are interviewed separately
- the child may say something if interviewed alone to support your suspicions.

Suspicious behaviour includes:

- a significant delay between the time of the injury and when help was sought
- an inappropriate degree of concerns for the severity of the injury
- poor parent-child interaction.
- repeated visits for accidents or injuries, repeated fractures or ingestions.

Physical findings which should arouse suspicion are:

- bruises in unusual sites such as the back, buttocks, upper arms, chest and face
- surface marks which show the imprints used to inflict the injury
- old scars in a child with acute injuries
- symmetrical burns of both hands or feet, or the lower legs and perineum
- burns which reflect the instrument used to make them

- the "shaken baby" syndrome. This consists of a subdural haematoma without evidence of a fractured skull, in association with multiple chip fractures
- fracture of the metaphyses of the long bones (any long bone fractures are suspicious in young infants especially in the absence of a reasonable explanation)
- retinal haemorrhages are found in head injuries
- intra-abdominal injuries without an adequate explanation
- adult human bites
- a torn frenulum.

When there are signs of physical abuse the child should always be examined for sexual abuse as well.

HOW TO APPROACH A CASE OF NON ACCIDENTAL INJURY

Approach the case with an open mind and proceed logically through the history, examination, provisional diagnosis and decision making. Look at the background history including the history of previous hospital visits. Look at the child's growth and development as impaired growth and development may accompany physical abuse due to emotional abuse or neglect.

Do not confront parents but make is clear that non accidental injury is always part of the differential diagnosis in children presenting with injuries.

It is important to talk to the child alone and to write down exactly what is asked and said. Do not ask leading questions? Who, what, where and how method is best e.g. "How did you get hurt?" "Who hurt you?" Any information gained in an interview must be handed on to other professionals involved in the case so as to prevent the child being repeatedly interviewed. If the child has been previously interviewed by somebody else get a report of the previous interview and only ask questions if the interviewer did not ask or get an answer to the questions you need answered.

DOCUMENTATION

Meticulous documentation is essential in cases when non accidental injury is suspected. It may help to identify discrepancies between initial and subsequent
case discussions and may be scrutinised at a later date in a court of law and should therefore be written in a professional manner, in clear terms that are understandable to non medical professionals.

All conversations with parents should be recorded including "who" said "what".

Bruises and injuries should be described verbally, and recorded diagrammatically using body charts and by means of colour photographs when possible.

Try to establish the age of individual bruises using the following guidelines.

< 24hrs	red/purple
12 - 48 hrs	purplish blue
48 - 72 hrs	brown
>72 hrs	yellow

Bruises to avascular areas and deep bruises may resolve at a slower rate.

Investigations

Special investigations recommended in the case of physical abuse include:

- Fundoscopy to look for retinal haemorrhages
- A skeletal survey to look for healed fractures
- A clotting profile to exclude a bleeding disorder
- A brain scan would be indicated by retinal haemorrhages impaired consciousness or any abnormal neurological signs
- Consult the child abuse register to find out whether abuse had previously been suspected or proven.

All injuries must be accurately documented by means of diagrams and if at all possible photographed.

When physical abuse is suspected one should also look for sexual abuse.

FRACTURES

Fractures in pre school children are uncommonly due to accidents and should be viewed with suspicion, especially under the age of three years. Most of the accidental fractures in infants and toddlers result from falls.

Fractures due to accidents usually present in the acute stage of the injury with pain, swelling or bruising. In physical abuse parents may not seek help for the injury and the diagnosis may only be detected after x-rays are done. The fractures are usually in hidden sites such as ribs, pelvis or skull.

Consider a skeletal survey if:

- a history or injury suggests physical abuse
- in all children less than 24 months
- older children with severe bruising
- localised pain, limp, or reluctance to use arm or leg
- history of a skeletal injury
- children dying in unusual or suspicious circumstances

Radionuclide bone scanning, if available, has advantages over a skeletal survey in that has a lower radiation dose and is more sensitive in detecting recent fractures. It cannot detect healed fractures and may miss metaphyseal lesions around normally "hot" epiphyseal growth plates.

Radiological findings which have a high index of suspicion include:

- metaphyseal or epiphyseal fractures
- rib fractures
- multiple or wide complex skull fractures
- scapular or sternal fractures
- multiple fractures
- fractures of different ages
- unpresented fractures

Dating of fractures:

Resolution of soft tissue change	4 - 10 days
Periosteal new bone formation	10 - 14 days
Loss of fracture line definition	14 - 21 days
Soft callus	14 - 21 days
Hard callus	21 - 42 days
Remodeling	1 year

Differential diagnosis

Normal variants: New periosteal bone in infants and unusual suture lines on skull x-rays may be normal variants.
Birth trauma: The clavicle and humerus may be broken in a breech delivery. If, however callus is absent two weeks after birth the fracture did not occur at birth.
Bone diseases e.g. osteogenesis imperfecta, copper deficiency and rickets of prematurity.

HEAD INJURIES

Head injury is the major cause of fatal outcome after physical abuse. In the first year of life 95% of serious intracranial injury is due to abuse. If the child survives permanent physical and mental handicap may result.

Infants rarely suffer a serious injury by rolling off a surface such as a changing table. Falls from greater heights such as from an adults shoulder height may result in a parietal hairline fracture. Falls from greater heights may result in a extra-dural haemorrhage but this is infrequent. Accidental intracranial injury is rare.

The force used in non accidental injuries is so much greater that the pattern of injury is different and serious intra-cranial injury results.

Types of injuries

Scalp injuries - this usually presents bruising which may be due to bruising or a subgaleal haematoma due to an underlying fracture.

Skull fractures

Manifestations of skull fractures:

- **Subdural haematoma** - these are unrelated to skull fractures in half the cases. They are usually due to violent shaking causing disruption of the bridging veins with bleeding into the subdural space. The only additional evidence may be the presence of retinal haemorrhages.
- **Subdural haemorrhages** arising after birth trauma cause symptoms soon after delivery. There is little evidence for a chronic subdural after birth trauma.
- **Cerebral contusion, haemorrhage and oedema** – is responsible for many of the deaths and long term disability resulting from physical abuse. On study estimated that 3 - 11% of children residing in hospitals for mentally retarded were handicapped as a result of physical abuse.

INVESTIGATIONS

- Lumbar puncture for blood
- Skeletal survey
- Scan is superior to M.R.I. scan in the acute stage in recognising subarachnoid haemorrhage and can also detect cerebral oedema and subdural haemorrhage.
- is superior to the C.A.T. Scan in subdural haemorrhage as well as posterior fossa and intraparenchymal injuries.

OPHTHALMIC PRESENTATION

Virtually any ocular injury can occur due to child abuse. Whenever abuse is suspected in children under 4 years a complete eye examination, including dilation of the pupil for retinal examination. This should be done as an emergency and later by an ophthalmologist. When a child under 4 years dies for no apparent reason the eyes should be examined in situ and at necropsy.

Retinal haemorrhages are one of the cardinal signs of the shaken baby syndrome, occurring in 80% of cases. These haemorrhages may occur in front of, within, or behind the retina. They are usually bilateral. Systemic conditions such as hypertension, sepsis, cyanotic congenital heart disease, leukaemia can cause haemorrhages but are easy to recognise from the history. Retinal haemorrhage may be seen after a normal birth but usually resolves in six weeks.

Sexually transmitted diseases can involve the eye and are the indication for a full evaluation for sexual abuse.

MANAGEMENT OF SUSPECTED PHYSICAL ABUSE

Decisions that need to be made include (these apply to all forms of abuse):

- the nature of the abuse
- the degree of suspicion
- the risk of further episodes
- the nature of abuse (see module 1)

The degree of suspicion

- LOW - The possibility of child abuse has been considered and there is insufficient evidence to validate the allegation, but abuse cannot be excluded.
- HIGH - There is evidence that child abuse has taken place, but it is not possible to validate all the evidence, or corroborative evidence is lacking.
- CONFIRMED - There is evidence of abuse. This means that either single sources of evidence have been fully validated, or multiple sources of corroborative evidence are present. This does not necessarily mean that there is enough evidence to gain a conviction against an individual, but simply
  that there is adequate evidence that abuse has taken place.

The level of risk

- LOW RISK - The risk of further abuse is no higher than that of other children. The child is in the care of adults who are competent to protect the child.
- MODERATE RISK - The risk of further abuse is higher that that of other children and increased surveillance of the child and family is necessary. This surveillance does not need to be given by people with specific social work training.
- HIGH RISK - There is a high risk of further abuse of the child and urgent intervention is required. Resources of trained social workers are essential together with police and legal resources.

PRINCIPLES OF MANAGEMENT

1. Non accidental injury must always be part of the differential diagnosis when a child presents with an injury.
2. Take a careful history to assess the feasibility of the injury fitting the explanation. Assess the environment in which the child lives.
3. Do a full physical examination including fundoscopy and genitalia.
4. If child abuse is suspected

- consult the child abuse register for previous reports of suspected abuse on this child.
- refer to the hospital social worker for a further evaluation of the family.
- admit the child for further medical investigations.
- place the child's name on the child abuse register.

5 Check that all the information and findings are clearly documented whenever possible with diagrams or photographs.

6. If your findings suggest that the child has been abused

- explain to the parents that a non accidental injury must be excluded, without making them feel as if they are being accused.
- contact the local Child Protection Unit of the SAP to do a criminal investigation if you have a significant level of suspicion.

MODULE 2

PLEASE CIRCLE THE CORRECT RESPONSE

1. Bruises may have a characteristic configuration which suggests the type of object used to inflict the injury. TRUE/FALSE

2. Incorrect methods of questioning a child who has been abused may influence the evidence he/she later gives in court. TRUE/FALSE

3. Bruises in avascular areas resolve sooner than those in other parts of the body. TRUE/FALSE

4. Fractures are a common finding in toddlers, and do not raise undue suspicion of physical abuse. TRUE/FALSE

5. Radionuclide bone scanning is always the investigation of choice if physical abuse is suspected. TRUE/FALSE

6. Head injury is a major cause of fatality after physical abuse. TRUE/FALSE

7. Physical abuse is responsible for a significant number of mentally disabled children found in institutions. TRUE/FALSE

8. The degree of suspicion and level of risk are important factors to consider when planning our management of a child when child abuse is suspected. TRUE/FALSE

9. CT scan of the brain is of greater value than an MRI scan in the acute head injury in recognising subarachnoid haemorrhage. TRUE/FALSE

10. Retinal haemorrhages are pathognomonic of the diagnosis of the "shaken baby" syndrome. TRUE/FALSE

MODULE 3.

SEXUAL ABUSE.

DEFINITION.

Sexual abuse is the use of a child for sexual gratification by any one who has a position of power relative to the child.

PRESENTATION.

Sexual abuse may present to the doctor in the following ways:

1. A child would present with a history of abuse or suspected abuse.
   - The child may have disclosed to somebody that she/he has been abused.
   - A third party may have observed the abuse or suspicious behaviour leading to a suspicion of sexual abuse.

There may be no history of abuse but the child may show symptoms or signs which makes the doctor suspect that sexual abuse may have taken place. These children may present in the following ways :

1. Symptoms related to the urogenital tract such as bleeding, discharges, urinary tract infections, or amenorrhea in post pubertal girls due to pregnancy.

2. Psychosomatic symptoms such as abdominal pain or headaches.

3. Behaviour problems such as deterioration in school performance, sexually provocative behaviour, anxiety or attempted suicide.

4. Signs or complaints of physical abuse.

EXAMINATION FOR SEXUAL ABUSE.

The examination of the sexually abused child should always be preceded by a full general examination looking for trauma or infection. This should include height, weight, assessment of behaviour and development. Associated signs of abuse should be looked for including injuries within the mouth, "love bites", teeth marks and bruising especially grip marks indicating restraint.

The examination can usually be done with the child's co-operation if adequate reassurance and explanation is given. Try to allow her to feel in control by constant explanations and ask permission to do intrusive investigations. As far as possible the examination must not be perceived by the child as abusive.

Girls are best examined in the "frog" position, using the examiners thumbs to spread the labia majora apart. Some doctors in this field prefer the prone position as the tissues are relaxed and do not need to be held apart. This position is not recommended as it breaks down the doctor child relationship, may embarrass older children and make the girl feel out of control. A girl under three years of age can be examined on the parent's lap with the knees bent up.

It is important that doctors routinely examine normal children so that they are familiar with the normal appearance and normal variations in the anatomy of the genitalia. See attached diagrams from: " Physical signs of sexual abuse". A report of the Royal College of Physicians", 1991.

Digital examination is not recommended for young girls. In the case of older (usually post - pubertal) girls where there is a history of penile penetration digital examination is necessary to assess the capacity and length of the vagina and the smoothness of its walls.

The examination of the anus is an essential part of the examination. The child is examined in the lateral position and the buttocks gently pulled apart. In the case of little boys, examine the penis, noting any trauma or infection.

What to look for?

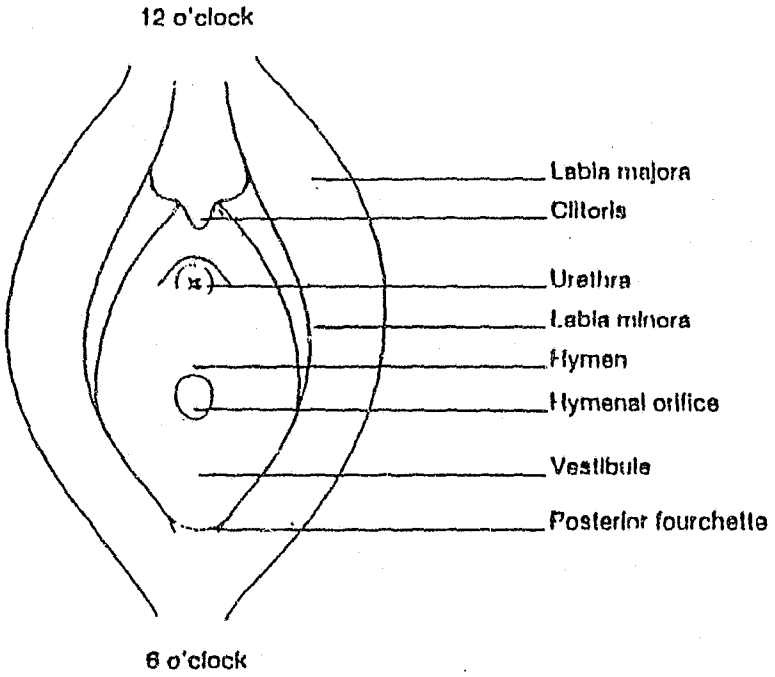
The hymen:
  * The shape may normally be crescentic, annular, fimbriated, cuff-like or rarely biseptate.
  * The edge of the hymen should be smooth, look for irregularities due to scarring.
  * The diameter of the orifice is usually 3mm in young children and then increases to reach a maximum of 10mm by adolescence. The hymen then becomes oestrogenised and becomes thick, elongated and folded.

The fourchette:
  * Look for scars or thickening.

The pubococcygeous muscles - note the tone or lack of tone.

The surrounding tissues - look especially for evidence of trauma or infection.

The anus, note:
  * Tone
  * Scarring
  * Lacerations.
  * Reflex dilatation which represents laxity of the internal sphincter for various reasons, one being sodomy.
  * Infection.



Anatomy of pre-pubertal female genitalia.

ACUTE SEXUAL ABUSE

If the abuse has occurred in the past 72 hours it is considered a medical emergency. The child must be seen immediately as delaying the examination will result in the loss of essential information such as the presence of sperm. It is important that when possible the child is not changed, washed or bathed prior to the examination, but comes in or brings all the clothing she/he was wearing when abused.

A. Physical findings indicating acute sexual abuse.

1. Vaginal tears, abrasions and contusions.
2. Hymenal tears, dilated hymenal ring.
3. Anal dilatation, erythema, and tears.
4. Presence of sperm or semen.

B. Physical findings indicating chronic sexual abuse.

1. Signs of venereal diseases namely discharges, warts [condylomata accuminata or lata], or ulceration.
2. Dilatation of the hymenal orifice and laxity of the surrounding pubococcygeous muscles.
3. Scars of the hymen or vaginal wall.
4. Poor anal tone, dilatation and scars.

REMEMBER THAT IN 2/3 OF CHILDREN SEEN FOR SUSPECTED SEXUAL ABUSE THERE WILL BE NO SUPPORTIVE PHYSICAL SIGNS.

INVESTIGATIONS IN ACUTE SEXUAL ABUSE.

Foreign bodies: The child should undress on a sheet of clean paper and the clothes put into a paper bag, labelled with both her name, the name of the examiner and the date.

Nailscrappings should be done onto a sheet and inserted into a marked envelope, if indicated by the history, for forensic examination.

Swabs for sexually transmitted diseases such as gonococcus, herpes vaginalis, chlamydia, gardenella and trichomonas. For the best result specific culture media is needed. Depending on the history sites to be swabbed include the pharynx, the vagina, the anus and the penile urethra. Swabs should be repeated after 2 weeks in cases of acute abuse as enough bacteria may not be present in the acute state. Under some circumstances antibiotic cover should be given as prophylactic treatment.

Semen can be shown up with a Woods light. This will indicate where to use the swab which has been dampened with water. If indicated a vaginal swab should be taken to look for both sperm and infection. The swab for sperm is plated and fixed with PAP fixative. If oral sex is suspected oral swabs should also be taken. Spermatozoa can be found in oral samples for 12 to 14 hours, vaginal swabs for 6 days and in the anus for 3 days. Seminal fluid is detected in the vagina for 12 - 18 hours and 3 hours in the anus. Seminal fluid is valuable in identifying the perpetrator by DNA techniques.

All specimens for forensic investigation should be put into a bag labelled with both the name of the child, the name of the examiner and the date.

Infections are rarely present in the acute state and swabs for sexually transmitted infections are usually done after a week or if a discharge develops. If follow up is not assured prophylactic antibiotics are recommended. See below.

Blood tests for sexually transmitted diseases namely VDRL [SYPHILIS] and HIV. These should repeated after 3 months in acute cases to allow for antibody formation.

Pregnancy test [HCGT] if indicated.

MANAGEMENT OF SEXUAL ABUSE.

The management decisions depends to a large extent on the degree of suspicion and the risk of further abuse taking place. Based on the history and clinical findings the following steps need to be considered.

a. Antibiotic cover if penetration or attempted penetration took place . Victims of incest have a lower risk of venereal disease and antibiotics may be withheld if the child can be followed up. Prophylactic antibiotics are recommended if follow-up is unreliable, especially if there is a high rate of venereal disease in the community and the perpetrator is a stranger.

Recommended regime:

Benzathine penicillin 50.000 u i.m.i. stat
or Ceftriaxone 125 mg /kg /dose maximum or 50mg/kilo.
plus Flagyl 15mg / kilo / day for 7 days.
plus Erythromycin 50mg / kilo / day for 14 days.
[after 12yrs Tetracycline 50mg / kilo/ day]

b. Prophylaxis against pregnancy in post menarche girls [of value in the first 72 hours] i.e. Ovral 28 - give two tablets stat and another two 12 hours later.

c. Hospital admission is indicated if:

- the child cannot be adequately examined without sedation.
- there is a risk of further abuse if the child is sent home.
- the child is in need of further investigations or treatment e.g. vaginal bleeding is present.

d. Register the abuse with the Dept of Health and Welfare.

e. Refer the child and her / his family to a welfare organisation for investigation and for psychological support.

f. Report to the "Child Protection Unit" if you are not able to admit the child to a place of safety and the child is at risk for further abuse.

g. Follow up to check for venereal diseases, and other complications of abuse.

Management decisions must be dominated by the need to protect the child from ongoing abuse. These decisions should be guided by your level of suspicion (the possibility that abuse took place) and your assessment of the risk of further abuse to the child. The management of children where there is a suspicion of child abuse is best managed by a multidisciplinary team. The function and roles of the multidisciplinary team will be discussed in Module 4.

MODULE 3: QUESTIONNAIRE

* PLEASE RETURN THIS QUESTIONNAIRE AS WELL AS ANY PREVIOUS *
* QUESTIONNAIRES YOU MAY HAVE IN THE ADDRESSED ENVELOPE. *

or fax to me at 011 642 6027.

NAME : .....

ADDRESS: .....

TEL.NO.: .....

1.	Suspicions of abuse may be aroused by nonspecific symptoms such as recurrent abdominal pain.	True/False
2.	The genital examination done in cases of suspected sexual abuse is always traumatic and is best done under a general anaesthetic.	True/False
3.	Young children are best examined sitting on the mother or caregiver's lap.	True/False
4.	The size of the hyr· ·nal orifice is dependant on the age of the girl.	True/False
5.	All cases of child abuse are considered a medical emergency and must be dealt with immediately.	True/False
6.	If molestation took place there will usually be physical evidence present.	True/False
7.	A venereal disease is more likely to be present if the perpetrator was a stranger.	True/False
8.	An examination under anaesthesia is indicated if there is bleeding from the vaginal after a girl has been raped.	True/False
9.	Anal dilatation is conclusive evidence of sodomy.	True/False
10.	Prophylaxis against pregnancy is only of value in the first 72 hrs after intercourse has taken place.	True/False

MODULE 4.

OTHER FORMS OF ABUSE.

BURNS AND SCALDS.

Burns and scalds are common in childhood and may occur due to a lapse in usual protection, negligent parenting or may be deliberately inflicted. Deliberate burns are found in 10% of physically abused children. The peak of accidental burns occurs in the second year while the peak of deliberate burns occurs later in the third year.

TYPES OF THERMAL INJURY.

Scalds are caused by hot water. It cause blisters, the affected skin peels in sheets, is soggy and blanched. The burns follow the contour of the clothes and are enhanced by cloths and variable in depth.
Contact, dry burns are caused by hot objects. The injury is clearly demarcated and has the shape of the object used. The burn is dry and of uniform depth.
Burns from flames are recognised by charring and singed hairs.
Cigarette burns which occur accidentally usually have a tail, while deliberate burns are deep and form a crater which scars.
Electrical burns are small but deep and have an entry and exit point.
Frictional burns occur due to rubbing or dragging. They usually occur over a bony prominence and the blisters are broken.
Chemical burns may cause staining and scarring of the skin.
Radiant burns e.g. due to the sun or fire are usually extensive, affect an aspect of a limb and are limited by clothing.

BURNS DUE TO PHYSICAL ABUSE.

Sites usually involved in physical abuse are the head, perineum, buttocks, the dorsum of the hands, feet and legs. Forced immersion results in a glove or stocking distribution. Immersion of the feet may be associated with a "hole in the Doughnut" burn of the buttocks as the child flexes its legs.

POISONING.

Accidental poisoning is common, while nonaccidental poisoning is rare but serious. It usually occurs in children under 2.5 years. It may present in the following ways.

1. A child that is rushed to hospital with a story of accidental poisoning.
2. Inexplicable signs and symptoms usually of acute onset.
3. Recurrent unexplained illness.
4. A child that is moribund or dead when first seen by a doctor.

In any child where non accidental poisoning is part of the differential diagnosis vomit, blood and urine should be kept in the fridge. Toxicology screens will pick up a limited number of toxins, it may therefore be necessary to try to determine which drugs the parents may have access to e.g. review their hospital records.

SUFFOCATION.

Suffocation is a rare but serious form of child abuse. It happens to children under 3 years and most cases the children are under one year. They may present to the doctor as an unexplained sudden deaths, moribund, or repetitively as cyanotic or floppy children whom the mother alleges had an episode at home. A small percentage of " cot deaths" have been killed by their parents.

Warning signs that the death may have been deliberate are:

* Previous episodes of unexplained apnoea, seizures or "near miss cot death".
* An infant under 6 months.
* Previous unexplained disorders affecting the child.
* Unexplained deaths of other children in the family.

Signs of smothering.

There may be no abnormal physical signs in a child who has been smothered. Signs that may be present include petechiae of the face and of the eye lids, congestion of the face, hand pressure marks and bruising in the mouth.

MUNCHAUSEN SYNDROME BY PROXY.

This term is used to describe children whose mothers invented stories of illness about their child and fabricate evidence to substantiate the story. The child abuse arises from the actions of the mother in fabricating symptoms e.g. giving the child drugs to make it sleepy, and the investigations and treatment the doctor is misled into doing.

Consequences of the syndrome.

1. Needless and harmful investigations and treatment.
2. Genuine disease induced by the mother's actions.
3. Sudden death due to the mother misjudging the degree of insult.
4. Chronic invalidism as the child may believe himself to be disabled and unable to live a normal life.
5. The children may acquire the lying behaviour of the mother and grow up to have Munchausen syndrome.

Warning signs to alert the doctor that he may be dealing with fabricated disease.

1. The illness is unexplained, prolonged or extremely rare.
2. The symptoms may be incongruous, or have a temporal association with the mother's presence.
3. The mother is a hospital addict whose main concern is to prove that the child is ill.
4. Treatment prescribed is ineffective and poorly tolerated.
5. In the family there are multiple illnesses and other family members with similar symptoms.

Action on suspicion of fabricated disease.

1. Check the history in detail.
2. Seek a temporal relationship between symptoms and the mother's presence.
3. Check personal, social and family history.
4. Contact other doctors, health workers or family members concerned.
5. Seek a motive.

In hospital.

1. Secure and verify charts and records.
2. Retain and analyse samples.
3. Increase surveillance.
4. Participate with social services.
5. Exclude the mother from the ward.

Motive.

The mother's motive in this condition is not to deliberately hurt the child but to get attention for herself.

Management.

Fabricated illness may have serious consequences to the child. The doctor has to assess how much the mother's actions are directly and indirectly harming the child and then to discuss the management with the child protection services.

EMOTIONAL ABUSE AND NEGLECT.

Emotional abuse and neglect of children may take many forms, from a lack of care for their physical needs, through a failure to provide consistent love, to overt hostility and rejection. Deleterious effects on developing children are correspondingly diverse and tend to vary with age. In infancy neglect of care is likely to produce the most obvious consequences and developmental delays are also found. Pre school children may in addition present with disorders of social and emotional adjustment. Older children are likely to show behaviour problems at school, which are accompanied by extensive learning difficulties.

Emotional abuse is rarely the sole reason for seeking child protection through legal action, yet there is evidence that its long term consequences upon social, emotional, and cognitive development may be far reaching and profound. Most cases of physical and sexual abuse take place in the face of emotional abuse. There is evidence that the psychological effects of the emotional abuse are the most detrimental to the child's future adjustment.

KEY FEATURES IN INFANTS.

Physical	Failure to thrive.
	Recurrent and persistent minor infe ns.
	Unexplained bruising.
	Severe nappy rash..
Developmental	General delay.
Behaviour	Attachment disorder: anxious, avoidant.
	Lack of social responsiveness.

KEY FEATURES IN PRE SCHOOL CHILDREN.

Physical	Short stature.
	Microcephaly.
	Unkempt and dirty.
Development	Language delay.
	Attention span limited.
	Socio-emotional immaturity.
Behaviour	Overactive.
	Aggressive and impulsive.
	Indiscriminate friendliness.
	Seeks physical contact from strangers.

KEY FEATURES IN SCHOOL CHILDREN.

Physical	Short stature.
	Poor hygiene.
	Unkempt appearance.
Developmental	Learning difficulties.
	Lack of self esteem.
	Poor coping skills.
	Socio-emotional immaturity.
Behaviour	Disordered or few relationships.
	Self stimulating or self injurious behaviour.
	Unusual patterns of defecation or urination.

THE ROLE OF THE DOCTOR IN EMOTIONAL ABUSE AND NEGLECT.

None of the above features in isolation are diagnostic of emotional abuse but should lead the practitioner to look further.

This form of abuse is best referred to a welfare agency for further investigation and management.

QUESTIONNAIRE: MODULE 4.

** PLEASE RETURN THE QUESTIONNAIRE IN THE ADDRESSED ENVELOPE **

1.	Cigarette burns which were inflicted deliberately have a characteristic appearance and can usually be differentiated from accidental burns.	YES / NO
2.	When burns involve both the feet and buttocks simultaneously a non accidental injury should be considered.	YES / NO
3.	A child who has been smothered will always have clinical signs suggesting the etiology such as congestion of the face.	YES / NO
4.	A child who has been the victim of Munchausen syndrome by proxy may suffer long term psychological consequences.	YES / NO
5.	The motive of the mother who fabricates her child's illness in cases of Munchausen by proxy does so deliberately to make the child suffer.	YES /NO
6.	Small stature may be a physical sign of emotional abuse and neglect.	YES / NO
7.	Emotional abuse or neglect should be considered if a child presents with self injurious behaviour.	YES / NO

MODULE 5.

MEDICO LEGAL ASPECTS AND LEGISLATION AROUND CHILD ABUSE.

The aim of this module will be to examine the roles of the team members, the doctor as witness, the child as witness, give some relevant information on forensic investigations and legislation regarding the reporting of child abuse.

THE CHILD ABUSE MANAGEMENT TEAM.

Child abuse is a problem with psychological, social, medical and legal aspects and requires the skills of a team of professionals with skills in these fields. Although, all professionals may not necessarily be involved in every case. It is important that the team members understand each others roles to form an efficient team. One member of the team needs to take on the position of team co-ordinator to ensure the cohesiveness of the team and to give continuity to the service. This is most commonly, although not essentially, the role of the social worker .

The role of the doctor.
Although the involvement of the doctor may be brief it may the first contact with the child and be critical to the successful management of the case. Important aspects of the doctors involvement is taking an accurate history in such a way that the child is allowed to disclose facts without leading questions. All information must be documented and be available to the rest of the team so that unnecessary repetition does not take place.

All clinical findings must be clearly recorded in a way that is understandable to other professionals. The J 88 (see appendix 1) is the legal document completed by district surgeons. This is not essential for medical practitioners. All pages of the medical report should be dated and signed. Diagrams and when possible photographs are useful.

Medical complications of the abuse must be sought and be treated, with special attention being paid to the psychological effects of abuse. It is the responsibility of the doctor to refer the child to the other members of the team for further investigation and management. The final contact with the child may be in court where competent submission of evidence could play an important role in protecting the child from further abuse.

For more details I attach an article entitled " The doctor as a witness in child abuse cases." by Dr. F.R.P. de Villiers. (Appendix 2).

The role of the psychiatric team.
In South Africa child psychologists and psychiatrists can play an important role in the multidisciplinary team. In more complex cases they can assist with the investigation by giving an understanding of the relationship between behaviour, emotions and family problems to potential abuse. Although not all abused children need to be assessed it is indicated if the child presents with emotional, behavioural, social difficulties or developmental delay. In cases where abuse is uncertain they may be able to shed light on the probability of abuse having occurred.

The psychiatric team are important in the decision making process around future management and treatment of the child. This process requires using all information available to balance the risk of further abuse against the damage of removing the child from the family. Such decisions are made in both in case conferences and in court.

The major role of the psychiatric team is in the provision of treatment. The focus of treatment is the welfare of the child and may involve improving the parent-child relationship.

The role of the social worker.
The social worker usually plays a key role in the management of the multi disciplinary team. She needs to collect information to gain an overview of the social, physical and emotional state of the child and the family. Based on this information referral is made to other members of the team and community support structures.

She is usually responsible for arranging the case conference where based on information provided by all the team members management decisions are made. She then ensures that they are carried out by liaising with community and other structures on the long term management of the child and family. In some communities this role is taken by community health workers.

The role of the Child Protection unit.
The Child Protection unit was established in 1986 to investigate crimes committed against children under 18 years of age. They also see themselves in a pro-active or preventative role and allocate part of their time to running self protection programmes in schools.

The members of the unit form an intrinsic part of the multi-disciplinary team. Their prime function is investigative. All evidence is eventually handed to the public prosecutor who will then decide whether to institute proceedings and what format the proceedings will take.

They play a very important role in removing children from dangerous situations and enforcing child protection legislation.

The role of the court.
The onus lies on the court to prove the alleged perpetrator guilty. Significant advances have been made in court procedure which should allow the child to give evidence in a more appropriate environment e.g. through a trained interviewer, behind a one-way mirror and in a child friendly room. However, this is still at the discretion of the judge and is not being used in many courts yet.

FORENSIC INVESTIGATIONS.

The "biology unit " of the police forensic laboratory examines material such as body fluids, tissue samples and hair with the intention of identifying and determining the origin of the sample. In the process a possible suspect can be excluded or linked to a crime.

Semen can remain in different sites for variable periods of time. It can be identified in clothing for over a year, the vagina for 72 hours, anus for 12 hours, mouth for 6 hours and urine for 12 hours.

The identification of semen is done by the use of genetic markers such as the ABO blood system, phosphoglucomutase iso-enzyme types and DNA analyses.

Smears and swabs taken by physicians must contain no preservatives and must be air dried before packaging. Swabs must be placed in a marked envelope. Slides must be packed either in a glass sheet container or wrapped carefully in toilet paper and placed between sheets of cardboard.

The clothing of the victim, especially panties, should be air dried and despatched in a paper packet.

Crime kits are available from the forensic laboratories for use by district surgeons and contain the correct containers for the collection of forensic samples.

LEGISLATION.

The "Child Care Act" of 1987, section 42, places a legal obligation on doctors, dentists, nurses and social workers to report cases where child abuse is suspected to their local department of welfare. This can be done telephonically or via a standardised registration form. In 1994 the obligation to report was extended by the "Family Violence Act" to include all persons responsible for children. Reporting according to this act can be to the local welfare department or to the police (Child Protection Unit).

CONCLUSION.

Child abuse is a wide spread problem effecting all sections of the community. The problem is complex and the work very stressful to both health workers and the child protection services. However, the mental and physical health of thousands of children is dependant on the competent management of child abuse. It is only by the development of skilled and supportive child abuse management teams that we will be able to provide and effective service to the child while supporting the individual members of the team.

SOURCES.

ABC of Child Abuse, edited by Roy Meadows. BMJ 1993.

The doctor as witness in child abuse cases. F.P.R. de Villiers. SAMJ Vol. 81, 1992.

Dr. Cora Smith. Child psychologist. Child and family unit. Transvaal Memorial Institute for Child Health and Development. Johannesburg. 1994 (unpublished information).

Deon Meintjies. Forensic science laboratory. South African Police. Pretoria. 1994. (unpublished information).

Gert Jonker. Liason Officer. Johannesburg Child Protection Unit. (unpublished information).

QUESTIONNAIRE

MODULE 5.

PLEASE RETURN THE QUESTIONNAIRE IN THE ADDRESSED ENVELOPE**

1. It is essential that the J 88 is always used for documentation of child abuse cases. TRUE / FALSE

2. The psychiatric assessment will prove whether the child was molested if physical evidence is missing.

TRUE / FALSE

3. The social worker frequently plays a key role in the multi disciplinary team

TRUE / FALSE

4. The function of the Child Protection Unit is to prosecute the perpetrator.

TRUE / FALSE

5. Court procedure still demands that the child give evidence in the presence of the alleged perpetrator.

TRUE / FALSE

6. Semen can be used to positively identify a perpetrator when a child has been raped.

TRUE / FALSE

7. The doctor is not obliged to report child abuse because of medical ethics.

TRUE / FALSE

8. Anal penetration is rare and therefore the anus is not an essential part of the examination.

TRUE / FALSE

9. Cautionary rules of evidence in cases of child abuse devalue the child's evidence.

TRUE / FALSE

10. The first disclosure of abuse by the child to the doctor is admissible in court as evidence.

TRUE / FALSE

DIVISION OF THE DEPUTY REGISTRAR (RESEARCH)
RECEIVED 1993 -10- 18
ACTION:

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Division of the Deputy Registrar (Research)

COMMITTEE FOR RESEARCH ON HUMAN SUBJECTS (MEDICAL)
Ref: R14/49 (Registry)

CLEARANCE CERTIFICATE PROTOCOL NUMBER M930916

PROJECT The effect of a training course in child abuse management on the attitudes of general practitioners to the handling of such cases

INVESTIGATORS Dr L Jacklin

DEPARTMENT Paediatrics

DATE CONSIDERED 930924

DECISION OF THE COMMITTEE

Approved unconditionally

DATE 931006 CHAIRMAN .....
(Professor P E Cleaton-Jones)

* Guidelines for written "informed consent" attached where applicable.

==========

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and ONE COPY returned to the Secretary at Room 10001, 10th Floor, Senate House, University.

I/we fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee.

DATE 18.11.93 SIGNATURE .....

Author Jacklin Lorna Barbaba
Name of thesis The Effect Of Training Course In Child Abuse On The Attitudes Of General Practitioners To The Handling Of Such Cases Jacklin Lorna Barbaba 1998

PUBLISHER:
University of the Witwatersrand, Johannesburg
©2013

LEGAL NOTICES:

Copyright Notice: All materials on the University of the Witwatersrand, Johannesburg Library website are protected by South African copyright law and may not be distributed, transmitted, displayed, or otherwise published in any format, without the prior written permission of the copyright owner.

Disclaimer and Terms of Use: Provided that you maintain all copyright and other notices contained therein, you may download material (one machine readable copy and one print copy per page) for your personal and/or educational non-commercial use only.

The University of the Witwatersrand, Johannesburg, is not responsible for any errors or omissions and excludes any and all liability for any errors in or omissions from the information on the Library website.