

Chapter Seven

RESULTS

In this chapter the results of the analysed data are presented. Once all the raw scores had been calculated, they were entered onto a spreadsheet and this was sent to the Statistical Consultants at the Rand Afrikaans University for statistical analysis. The results are presented in the following sections.

Descriptive statistics regarding the subjects of the present study

Variable	1		2		3		4	
	X	SD	X	SD	X	SD	X	SD
Emotional Abuse	17.1667	19.2068	16.8750	17.3464				
Physical Abuse	9.7667	10.5950	11.7500	11.8147				
Sexual Abuse	7.2000	10.9683	7.9583	9.4016				
State Anxiety	38.0667	9.8469	40.0417	13.5630	30.7692	9.6709	37.5833	10.1575
Trait Anxiety	42.6333	11.5594	44.2083	14.2126	32.2308	7.8012	38.5833	8.8262
State Anger	12.5333	5.8235	15.2917	8.9806	10.6923	2.2130	10.5000	1.4460
Trait Anger	20.1000	5.7377	22.2917	6.6495	18.2308	4.6396	16.5833	4.8516
Angry Temperament	6.8000	2.7842	7.8333	3.7610	5.4615	1.6132	5.4167	1.6214
Angry Reaction	9.8667	2.9094	10.3750	2.5506	9.7692	3.1925	7.9167	2.9683
Anger- in	18.5000	5.1445	17.3750	5.1145	16.2308	2.4547	17.9167	3.1176
Anger- out	15.8000	4.6268	18.0833	4.8715	14.9231	2.9850	15.5833	4.4611
Anger Control	22.1333	4.6218	19.8750	5.2528	20.3077	4.3279	20.6667	3.4989

Table 7.1 Means and Standard Deviations for Group 1 to Group 4 for emotional abuse, physical abuse, sexual abuse, trait anxiety, state anxiety, trait anger, state anger, angry temperament, angry reaction, anger-in, anger-out and anger control.

Group 1= abused women with IBS (n=30)

Group 2= abused women without IBS (n=24)

Group 3= non-abused women without IBS (n=13)

Group 4= non-abused women with IBS (n=12)

- Of all the subjects tested 68% had suffered some form of abuse
- More than half (59%) of all the subjects suffered from IBS
- 38% of the subjects had been abused *and* suffered from IBS
- 15% of the subjects suffered from IBS although they had not been previously abused.

Although not at a statistically significant level (see tables 7.4.1, 7.4.2, 7.4.3), it is interesting to note the higher scores in state anxiety and trait anxiety in all the groups of women who had been abused (i.e. Group 1 and Group 2). The scores for state anger and trait anger are also elevated for those groups of women who had been abused, relative to those who had not been abused. It can also be observed that those women who had been abused, and who suffer from IBS had relatively higher scores of trait anxiety and trait anger, than those who suffered from IBS but who had not been abused.



Results of Composite Null Hypothesis 1

There are no statistically significant differences between Group 1 (abused women with IBS) and Group 4 (non-abused women with IBS) regarding the three sub-types of IBS (pain predominant IBS, IBS with diarrhoea/constipation, IBS with bloating).

Types of IBS	1	4	Total
Pain predominant	11	6	17
Diarrhoea/constipation predominant	6	3	9
Bloating predominant	13	3	16
Total	30	12	42

Pearson Chi-Square : 1,233
DF : 2
p : 0,540




Table 7.2 Significance of differences between Group 1 (abused women with IBS) and Group 4 (non-abused women with IBS) regarding Type of IBS.

There are no significant differences between Group 1 (abused women with IBS) and Group 4 (non-abused women with IBS) regarding the sub-types of IBS.

The composite null hypothesis is accepted.

Results of Composite Null Hypothesis 2 and Sub-Null Hypotheses 2.1 – 2.3.

There are no statistically significant differences in the vectors of averages of Group 1 (abused women with IBS) versus Group 2 (abused women without IBS) regarding the three types of Abuse (emotional abuse, physical abuse, sexual abuse) taken together.

These results are presented in the following two sub-sections.

Results of Composite Null Hypothesis 2

	Value	F	Df	Sig
Wilks' Lambda	0.980	0.346	3.500	0.792

Table 7.3 Significance of differences between Group 1 (abused women with IBS) and Group 2 (abused women without IBS) regarding the three types of abuse taken together.

There are no differences between Group 1 (abused women with IBS) and Group 2 (abused women without IBS) regarding the three types of abuse (emotional abuse, physical abuse and sexual abuse) taken together.

The composite null hypothesis is accepted.



Results of sub-null hypotheses 2.1 – 2.3

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Group	Dep variable	Type III Sum of Squares	Df	Mean Square	F	Sig.
1 vs 2	Emotional Abuse	1.134	1	1.134	0.003	0.954
	Physical Abuse	52.448	1	52.448	0.422	0.519
	Sexual Abuse	7.668	1	7.668	0.072	0.789

Table 7.4 Significance of differences between Group 1 (abused women with IBS) and Group 2 (abused women without IBS) regarding the three types of abuse taken separately.

There are no differences between Group 1 (abused women with IBS) and Group 2 (abused women without IBS) regarding the three sub-scales of abuse taken separately.

The sub-null hypotheses 2.1-2.3 are accepted.

6.4 RESULTS OF NULL HYPOTHESIS 3 AND SUB-NULL HYPOTHESES 3.1-3.9 AND SUB-NULL-HYPOTHESES 3.1.1 – 3.9.6

There are no statistically significant differences in the vectors of averages of Group 1 (abused women with IBS) versus Group 2 (abused women without IBS) versus Group 3 (non-abused women without IBS) versus Group 4 (non-abused women with IBS) regarding the nine subscales of the State-Trait Anxiety Inventory (STAI) and the State-Trait Anger Expression Inventory (STAXI) taken together.

These results are presented below.

Results of Null Hypothesis 3

	Value	F	Df	Sig.
Wilks' Lambda	0.655	1.135	27.196	0.303

Table 7.5 Significance of differences between Group 1 (abused women with IBS) versus Group 2 (abused women without IBS) versus Group 3 (non-abused women without IBS) versus Group 4 (non-abused women with IBS) regarding the nine subscales of the State-Trait Anxiety Inventory (STAI) and the State-Trait Anger Expression Inventory (STAXI) taken together.

There are no differences between Group 1 (abused women with IBS) versus Group 2 (abused women without IBS) versus Group 3 (non-abused women without IBS) versus Group 4 (non-abused women with IBS) regarding the nine subscales of the State-Trait Anxiety Inventory (STAI) and the State-Trait Anger Expression Inventory (STAXI) taken together.

The composite null hypothesis 3 is accepted.

Because Wilks' Lambda is not statistically significant, the apparent statistically significant differences as portrayed in Tables 7.6 and 7.7 should not be interpreted.

However, it is interesting to take note of the apparent statistically significant differences between the four groups as regards trait anxiety, trait anger and angry temperament (Table 7.6). There is also an apparent statistically significant difference found between Group 2 and Group 3 in terms of trait anxiety (Table 7.7).

Results of Sub-Null Hypotheses 3.1 - 3.9

Group	Dep variable	sum of square	Df	Mean square	F	Sig.
Between groups	State-Anxiety	752.786	3	250.929	2.024	0.118
Within groups		9300.049	75	124.001		
Total		10052.8	78			
Between groups	Trait-Anxiety	1393.192	3	464.397	3.446	0.021 *
Within groups		10108.1	75	134.775		
Total		11501.3	78			
Between groups	State-Anger	272.236	3	90.745	2.331	0.081
Within groups		2920.194	75	38.936		
Total		3192.43	78			
Between groups	Trait-Anger	306.662	3	102.221	3.08	0.032 *
Within groups		2488.883	75	33.185		
Total		2795.544	78			
Between groups	Angry Temperament	70.808	3	23.603	2.901	0.040 *
Within groups		610.281	75	8.137		
Total		681.089	78			
Between groups	Angry Reaction	49.988	3	16.663	2.034	0.116
Within groups		614.316	75	8.191		
Total		664.304	78			
Between groups	Anger-in	50.36	3	16.787	0.813	0.491
Within groups		1548.349	75	20.645		
Total		1598.709	78			
Between groups	Anger-out	114.616	3	38.205	1.92	0.134
Within groups		1492.473	75	19.9		
Total		1607.089	78			
Between groups	Anger Control	76.017	3	25.339	1.178	0.324
Within groups		1613.528	75	21.514		
Total		1689.544	78			

Table 7.6 Significance of differences between Group 1 (abused women with IBS) versus Group 2 (abused women without IBS) versus Group 3 (non-abused women without IBS) versus Group 4 (non-abused women with IBS) regarding state anxiety, trait anxiety, state anger, trait anger, angry temperament, angry reaction, anger-in, anger-out, and anger control, taken separately.

There are no statistically significant differences between the four groups regarding trait anxiety, trait anger and angry temperament as measured by the STAXI and the STAI.

The sub-null hypotheses 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7,3.8 and 3.9 are accepted.

The Scheffe statistical analysis was carried out and these results are presented below.



Results of Sub-Null Hypotheses 3.1.1 – 3.9.6

Dependent Variable	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.
State -Anxiety	1	2	-1.9750	3.050	0.936
	1	3	7.2974	3.698	0.281
	1	4	0.4833	3.804	0.999
	2	3	9.2724	3.835	0.129
	2	4	2.4583	3.937	0.942
	3	4	-6.8141	4.458	0.509
Trait-Anxiety	1	2	-1.5750	3.179	0.970
	1	3	10.4026	3.855	0.072
	1	4	4.0500	3.965	0.791
	2	3	11.9776	3.998	0.036 *
	2	4	5.6250	4.104	0.600
	3	4	-6.3526	4.647	0.602
State -Anger	1	2	-2.7583	1.709	0.461
	1	3	1.8410	2.072	0.852
	1	4	2.0333	2.131	0.823
	2	3	4.5994	2.149	0.214
	2	4	4.7917	2.206	0.203
	3	4	0.1923	2.498	1.000
Trait-Anger	1	2	-2.1917	1.578	0.590
	1	3	1.8692	1.913	0.812
	1	4	3.5167	1.968	0.369
	2	3	4.0609	1.984	0.250
	2	4	5.7083	2.037	0.057
	3	4	1.6474	2.306	0.916
Anger Temperament	1	2	-1.0333	0.781	0.628
	1	3	1.3385	0.947	0.576
	1	4	1.3833	0.974	0.572
	2	3	2.3718	0.982	0.130
	2	4	2.4167	1.009	0.135
	3	4	4.487E -02	1.142	1.000
Angry Reaction	1	2	-0.5083	0.784	0.936
	1	3	9.744E -02	0.950	1.000
	1	4	1.9500	0.978	0.272
	2	3	0.6058	0.986	0.944
	2	4	2.4583	1.012	0.126
	3	4	1.8526	1.146	0.460
Anger-in	1	2	1.1250	1.244	0.845
	1	3	2.2692	1.509	0.523
	1	4	0.5833	1.552	0.986
	2	3	1.1442	1.565	0.911
	2	4	-0.5417	1.606	0.990
	3	4	-1.6859	1.819	0.835
Anger-out	1	2	-2.2833	1.222	0.329
	1	3	0.8769	1.481	0.950
	1	4	0.2167	1.524	0.999
	2	3	3.1603	1.536	0.246
	2	4	2.5000	1.577	0.478
	3	4	-0.6603	1.786	0.987
Anger- control	1	2	2.2583	1.270	0.374
	1	3	1.8256	1.540	0.705
	1	4	1.4667	1.584	0.836
	2	3	-0.4327	1.597	0.995
	2	4	-0.7917	1.640	0.972
	3	4	-0.3590	1.857	0.998

Table 7.7
Significance of differences between Group 1 (abused women with IBS) versus Group 2 (abused women without IBS) versus Group 3 (non -abused women without IBS) versus Group 4 (non-abused women with IBS) regarding state anxiety, trait anxiety, state anger, trait anger, angry temperament, angry reaction, anger-in, anger-out, and anger control, taken separately.

There are no statistically significant differences between Group 1 (abused women with IBS) versus Group 2 (abused women without IBS) versus Group 3 (non-abused women without IBS) versus Group 4 (non-abused women with IBS) regarding state anxiety, trait anxiety, state anger, trait anger, angry temperament, angry reaction, anger-in, anger-out, and anger control.

The sub-null hypotheses 3.1.1 – 3.9.6 are accepted.

Conclusion

This chapter has presented the statistical analysis of the collected data in tabular form and the results of the tested hypotheses. According to the results presented above, no statistically significant differences have been found to exist between Group 1 and Group 4 in terms of the sub-types of IBS. There were also no statistically significant differences found between Group 1 and Group 2 in terms of the types of abuse. The above results also show no statistically significant differences between the four groups in terms of the sub-scales of the STAXI and the STAI.

The next chapter presents a discussion on the results reported in this chapter, and interprets the results within the framework of the present study. The relevance of these results, the limitations of the study and implications for future research will be considered in Chapter 8.

CHAPTER EIGHT

DISCUSSION OF RESULTS, LIMITATIONS AND RECOMMENDATIONS

Introduction

IBS is one of the most common disorders encountered by gastroenterologists in the industrialized world and the most common functional bowel disorders seen by primary care physicians (Farthing, 1995). While there are many probable causes, there appears to be no one definite cause, and certainly no one treatment that is effective for sufferers. While being so common a disorder that it almost seems to be a disease of modern living, the development of IBS is poorly understood and the diagnosis still remains a dilemma in the absence of a structural or biochemical cause. Thus IBS is, and will remain a challenge for both doctors and patients until it is more fully understood. The present study is an attempt to understand something of the abusive negative life events which may exacerbate, or even lead to the later development of IBS.

In one of the first studies to document the high prevalence of sexual and physical abuse among female patients in a gastroenterology clinic, Drossman et al. (1990) found that 44% of these women reported some form of sexual and /or physical abuse. Since then there have been a number of other studies that have sought to further study this phenomenon, but none of them have been South African studies. The present study sought to remedy this situation.

As previously discussed, the purpose of this study was to investigate the incidence and presence of childhood and/or later abuse and the development of IBS in women. The study further sought to investigate the associations between IBS and various forms of abuse, and whether these were significant. In the present study an attempt has been made to investigate these links, as well as the effects of anxiety and/or anger on the progression of IBS.

Discussion of Results

After the study by Drossman et al. (1990) a number of studies have been carried out in countries other than South Africa that have shown significant links between abuse and IBS. In a health maintenance clinic (HMO), Felitti (1991) found that patients with a history of sexual abuse compared with a matched clinic group had a high frequency of gastrointestinal problems (64% compared with 39%). In another study, Lechner et al. (1993) administered a questionnaire to a sample of female patients seen in the waiting room of a family practice clinic. Once the presence of sexual abuse was confirmed, further questions about illness symptoms were asked. There were significant differences found between the abused and non-abused sample group, namely, the abused group reported more gastrointestinal symptoms (30,1% compared with 10,9%), higher rates of respiratory problems (15,4 % compared with 6,2 %), and higher rates of neurological problems (7,4 % compared with 2,1%). Abuse history was also associated with more mental health treatment (60% compared with 28%). Thus the above findings indicate that female victims of early abuse are more likely than others to have physical (in particular, gastrointestinal) symptoms later in life. It must be noted that these studies have drawn their samples from medically or clinically based populations. The present study sought to carry out a true population survey and thus should be compared to another population-based study, that is, the study carried out by Talley et al. (1994).

Talley et al. (1994) mailed a self-report questionnaire that included questions about abuse to a random sample of 919 people in Minnesota. Twenty-six percent of the population reported some form of abuse in the past, with 22% in this sample reporting sexual abuse. Sexual abuse history was also associated with functional gastrointestinal symptoms. When compared with a normal sample, those who had been sexually, emotionally or verbally abused as children *or* adults were 1,9 times more likely to develop a functional gastrointestinal disorder. Those who reported abuse in adulthood *and* childhood were about three times as likely to have IBS. The present study found higher rates of abuse in

the general population, with 68% of the sample reporting abuse. Of these abused women, 38% could be diagnosed with IBS. 15% of the sample was women who had not been abused, but who did have IBS, thus it can be deduced from this that the presence of abuse predisposes a woman for IBS by a factor of 2,53. These findings are in line with the above study.

A study was conducted by Talley et al. (1993) to determine whether psychiatric disorders are associated with IBS, and whether patients with IBS report childhood sexual abuse more often. They found that while patients with IBS report childhood abuse more frequently, once the statistics were adjusted for age and gender, they could not confirm that there is a relationship between childhood sexual abuse and IBS. They further report that the association between functional bowel disorders and abuse may have been confounded by the presence of a psychiatric disorder. The present study went a step further than this and found that there are no statistically significant differences found between Group 1 (abused women with IBS) and Group 2 (abused women without IBS) in terms of the types of abuse. Thus it cannot be said that the presence of any single type of abuse alone predisposes a women to developing IBS.

In contrast to the studies carried out by Drossman et al. (1990); Leserman et al. (1996); Talley et al. (1994) and Walker and Katon (1996), who found the presence of sexual and/or physical abuse in those women who suffered from IBS, the present study found that there were no statistically significant differences found between Group 1 (abused women with IBS) and Group 2 (abused women without IBS) in terms of the types of abuse. Thus it can be postulated that women with IBS may have been victims of emotional and verbal abuse, just as they may have been victims of sexual or physical abuse. This finding has implications for medical practitioners and the type of questions they should be posing in order to aid any IBS sufferer.

Only one study has compared abuse frequencies with different functional gastrointestinal disorders (Leroi et al., 1993, in Drossman et al., 1995). These researchers found the frequency of sexual abuse was greater in clinic patients with functional lower gastrointestinal disorders than in those with functional upper gastrointestinal tract

disorders. Abused patients were more likely than non-abused patients to report constipation, diarrhoea or pelvic floor dyssynergia (obstructive defecation). These findings are not in line with those of the present study, which has found that no statistically significant differences have been found to exist between Group 1 (abused women with IBS) and Group 4 (non-abused women with IBS) in terms of the sub-types of IBS. Thus it would seem that it is not possible to say what type of abuse a woman had suffered on the strength of the sub-type of IBS. In fact, the present study found that of those women who had been abused and who had IBS, the highest percentage suffered from IBS with bloating (43%) which may be considered a functional upper gastrointestinal tract disorder. Thereafter 37% of women suffering from IBS who had experienced abuse, suffered from IBS with pain, and 20% suffered from IBS with diarrhoea and/or constipation.

In a study cited by Greenwald, Leitenberg, Cado and Tarran (1990) where a random sample of adult women were compared with those who had been abused either in childhood or in adolescence, it was found that those who had been abused as children differed from the controls in the anxiety subscale of the Derogatis Symptom Checklist. Research carried out by Wilson (1997) found that 81,3% of IBS patients studied reported elevated levels of generalized anxiety, with 46,2% of these manifesting clinically significant levels. These studies do not confirm the findings of the present study which has shown that no statistically significant differences between Group 1 (abused women with IBS) versus Group 2 (abused women without IBS) versus Group 3 (non-abused women without IBS) versus Group 4 (non-abused women with IBS) in terms of the subscales of the STAXI and the STAI. However a visual scanning of the means of the various Groups (Table 7.1) are of interest in order to note the higher scores in state anxiety and trait anxiety in all the groups of women who had been abused (i.e. Group 1 and Group 2). The scores for state anger and trait anger are also elevated for those groups of women who had been abused, relative to those who had not been abused. It can also be observed that those women who had been abused, and who suffer from IBS had relatively higher scores of trait anxiety and trait anger, than those who suffered from IBS but who had not been abused. These findings are in line with those of Nyhlin et al. (1993) who are

of the opinion that IBS is one facet of a more general condition, which includes hyperventilation syndrome, and a separate pattern of illness behaviour that is characterized by an unassertiveness in expressing personal feelings. Thus these women may be anxious or angry, but may be unable to express these feelings in a healthy way, but instead turn them in on themselves and so they become anger-prone or anxiety-prone. This continual bottling up of powerful emotions could feasibly lead to the development of IBS.

The results are further discussed in the following sections.

Evaluation of the Present Study

Every study needs to be evaluated in light of past similar studies. This will lead the researcher to assess the study in light of its strengths and weaknesses, as well as providing guidelines for future studies. This section seeks to evaluate the present study in terms of its positive attributes as well as those attributes that detracted from the study.

Positive attributes of the present study

In assessing the relevance of the present study, cognisance must be taken of the efforts made in the study to address certain of the flaws that may have detracted from the value of earlier research projects.

The unique South African context

The present study is a truly unique South African population-based study where the participants were recruited from a true population, and not from a clinical population, and inasmuch this study differs from previous studies. Unlike the study carried out by Talley et al. (1994) that included only white American women aged 30-49 years, the present study includes adult women of all ethnic groups.

The inclusion of four groups

A number of the previously mentioned studies have studied only one group, that is, patients (mostly women) who suffer from IBS. They have then been investigated further to ascertain rates of earlier or present abuse. Other studies have investigated two groups, a subject group who suffered from IBS and a control group who did not suffer from IBS, and these groups have been studied in terms of their earlier or present abuse. The study reported by Talley et al. (1994) researched three different groups in terms of their abuse history, that is, healthy controls with no gastrointestinal symptoms, subjects with non-specific gastrointestinal symptoms (that is, gastrointestinal symptoms that did not fulfil the criteria for IBS, such as dyspepsia or heartburn) and subjects with gastrointestinal symptoms. These groups were then researched with regard to their abuse histories. The present study differed from the abovementioned studies in that instead of using the criteria of IBS to sort the respondents into the various groups, the incidence of abuse was used to sort the women into the different groups. This was further refined by selecting the respondents into one of four groups on the basis of the incidence of IBS. Thus it appears that the present study refined the groups even further and this might have contributed to the apparent differences in the results.

A population-based study

The study reported by Talley et al. (1994) is classified as a population-based cross-sectional study. It was carried out in Olmsted County where the Mayo Clinic is the major health care provider. It is reported that more than 95% of the population would have had at least one medical contact with a local care provider during any three to four year period. Initially the inpatient and outpatient medical records of each candidate subject were reviewed to determine eligibility for the study. The present study differs from this study in that subjects were truly recruited from the population and they were not known to be health-care users for any medical complaints including IBS. Thus most of the women who took part in the present study were unaware that they suffered from IBS. It

could be argued that women, if they knew they were suffering from IBS, could be a confounding factor in any findings. This would not have been the case in the present study.

Leserman et al. (1996) found that in their study they showed a strong relationship of prior sexual and physical abuse with current poor health, including gastrointestinal symptoms. However they are of the opinion that their study may not be generalizable to patients seen outside of referral gastroenterology practices, such as those subjects who participated in the present study. Thus this may be a contributing factor to the apparent contradictions found when comparing the various studies.

According to Heaton and Thompson (1999) most IBS patients are seen and managed by their general practitioner and only 20% ever see a specialist. They contend that even fewer of these are referred on to academic centres where they may enter clinical trials, or may submit to physiological or psychological studies (Figure 8.1). Yet most of the vast amount of published material is based on these few selected patients. They maintain that this filtering process can distort people's understanding of IBS, one example being the relationship of IBS to psychological disorders. Studies carried out in academic centres have shown much psychiatric morbidity in IBS patients, but surveys in the community often find non-patients with IBS to be psychologically similar to the rest of the population. This may be equally true of those studies carried out investigating the association of abuse with IBS. All the studies previously mentioned have been drawn from clinic based populations, and not one of them apart from the present study have drawn their sample from the general population. Thus the different and unique findings of the present study may not be that surprising.

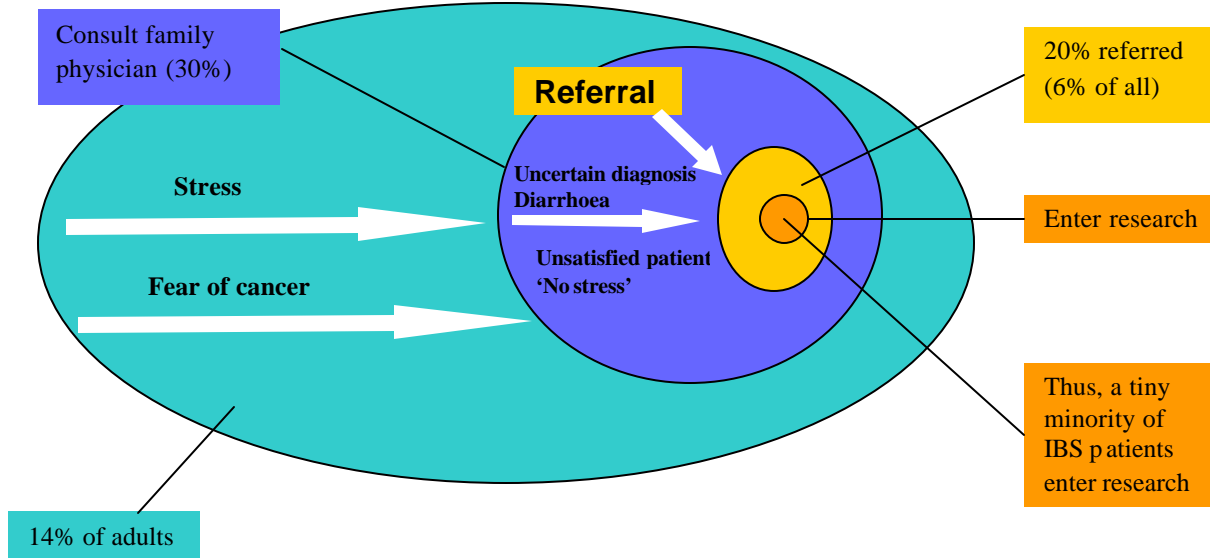


Figure 8.1 Scheme to show how IBS patients who enter research studies are highly selected and so likely to be atypical. (Heaton & Thompson, 1999, p.15)



Limitations of the present study

Although every effort has been made to ensure that this study is methodologically sound, there are certain unavoidable limitations and shortcomings.

Abuse Questionnaire

As has been reported earlier the researcher included a section on abuse in the biographical section of the questionnaire. This contained a box where the respondent was asked to complete by ticking the correct response. The respondent was asked whether she had been the recipient of physical abuse and to indicate who the abuser was by means of a tick, she was also asked to do this for sexual abuse, as well as emotional abuse (which was broken down into emotional and verbal abuse). She was further asked to indicate at which age these abuses had taken place. The researcher had planned to use this section as a selection instrument. However, it was found that although a number of women reported

abuse in the Abuse Questionnaire, they had failed to complete this section. The researcher found that although women were able to report various types of abuse, they were unable to name these abuses. This has implications for ongoing education in the field of women's work.

Questionnaire versus Interview

In the study carried out by Leserman et al. (1996), 12% of the study patients initially indicated no sexual abuse on the clinic questionnaire they were asked to complete, but they later acknowledged sexual abuse on the same questionnaire when administered in an interview. When questioned by the interviewers, they reported that they were unwilling to disclose the abuse until they had decided whether to participate in the full study. Talley et al. (1993) confirm this finding, albeit for the detection of psychopathology in outpatient populations. They found that using a self-administered questionnaire produced lower results than when a structured interview was used. Thus the use of a self-administered questionnaire instead of a structured interview might have led to a bias as regards the results of the present study, and the incidence of abuse may be lower than if a face-to-face interviewing technique was used. Talley et al. (1993) also came to the conclusion that using self-administered questionnaires versus structured interviews do produce different results, with structured interviews being more appropriate.

Incidence of abuse

Women who are or have been victims of gender-based crimes are rarely in a position to discuss this violation in public, or with a complete stranger (Bollen et al., 1999). The reasons that survivors of sexual assault and domestic violence do not report incidents to the police are probably the same as why survivors are reluctant to answer questions of an intimate nature, and these include feelings of embarrassment, self-blame, guilt and the fear of not being believed. It is therefore likely that there is a large discrepancy between assaults that are revealed in research surveys and the actual number of assaults that occur.

Moeller et al. (1993) are of the opinion that more investigations are needed on the accuracy of retrospective recall for all types of abuse. They further contend that the likelihood of disclosing abuse, especially physical abuse, decreases over time. By implication, childhood abuse rates obtained from adults, as was the case in the present study, would most likely err on the side of underrepresentation.

The Subjects

A number of subjects for the present study were recruited at a conference held by a large Church denomination and it may be possible that women in the Church are reluctant to disclose abuse as this goes against the teaching of the Bible to forgive and forget those who do wrong to you. This was addressed by some of the respondents who wrote:

“I was a born again Christian since the age of 12. I was raped one night coming home from night school. I was angry and bitter. Only my Dad and the Doctor and the Police knew. It took many years to come right. I was 18 when it happened. It was one of the students.....God gave me an understanding Christian husband.....He was loving and I overcame the guilt and dirty feelings. But most of all it was God’s love that brought me through.”

“I was sexually abused by my brother when I was small. Nobody knows and I am trying to keep it as a secret. Today it is of no use to talk about it. I’m trying to wash the past out of my system.”

It is interesting to note that not one of these women availed themselves of the counselling service offered by the researcher.

The researcher is of the opinion that while women in America and Europe may feel free to discuss intimate details of their lives, this is not necessarily so in South Africa where woman grow up in patriarchal societies and are mostly more conservative than their overseas colleagues. A Xhosa respondent addressed this by writing:

“I grew up in a Christian home and I have never seen my mom beaten by my dad. Our culture doesn’t give room to a father to talk anything related to sex.”

The two Groups, Group 1 and Group 2, who reported that they had suffered sexual abuse made up 68% of the total sample, and this is in line with the prevalence of abuse rates found in North America, where these rates range from 6% to 62%, depending on the study and the definitions used (Talley et al., 1994). However, the researcher postulates that there may have been underreporting of abuse incidents due to the factors given above. This is confirmed by a study carried out by Bollen et al. (1999) who carried out a South African research project and found that 71% of women participating in the study revealed experiences of abuse, but the researchers felt that even this might be an undercount as some women found this section of the interview to be particularly anxiety provoking.

Recommendations for future research

The South African context

As very little research has been conducted in South Africa on the role of abuse in the development of IBS, and as the present study has not confirmed research carried out elsewhere, it will be of some benefit to further research this topic. It may then become possible to pinpoint the triggers for the later occurrence of IBS in women. This information may be used in proactive educational and life skills interventions.

In a study carried out by Wyatt, Burns Loeb, Solis, Vargas Carmona, and Romero (1999) ethnic differences were noted in the types of abuse, as well as the settings where the abuse took place between European American women and African American women. An interesting possibility for future research relates to the possible differences in the types of abuse perpetrated in various ethnic groups. Preliminary data in the present study indicated that such differences do occur. However the ethnic groupings were not sufficient to warrant detailed analyses. It is recommended that these possible differences

be investigated in the future using larger samples of different ethnic groups. This might be relevant and interesting for future research. These differences, if confirmed by further studies, might help to better tailor prevention messages to different communities. In that way, generic messages will be replaced with more specific risk factors for certain groups.

The role of gender

Gender appears to be related to sexual abuse and subsequent outcomes. The sexual abuse of females is more likely to be reported, whereas the sexual abuse of males is believed to be underreported (Feiring, Taska & Lewis, 1999). Most of the available research is on females (Finkelhor, 1979), and when male samples are examined the sample size is usually less than 30. While it appears that women suffer from IBS more frequently than men, it would make for intriguing research to include male subjects in any future studies.

Conclusion

Childhood physical, emotional, and especially sexual abuse is highly prevalent and is strongly associated with several problems in adulthood. As has been shown earlier in the present study, abuse of women during adulthood also lead to many problems of living. While the present study has sought to investigate the links between abuse, both in childhood and in adulthood, these have not been found to be simple links and there appear to be many and varied processes involved.

Talley et al. (1994) point out that the observed association between abuse and gastrointestinal symptoms does not necessarily indicate that this is a causal relationship. They suggest an alternative and plausible hypothesis is that abuse aggravates or otherwise modifies the illness experience in subjects already predisposed. On the other hand some people may be “positive reporters,” who are disposed to interpret normal somatic sensations as pathological and normal variants of the human experience as abuse.

Toner, Koyama, Garfinkel, Jeejeebhoy and Gasbarro (1992) explain that IBS is probably best conceived of as a multidimensional syndrome with any combination of

psychological, social and organic predisposing and perpetuating factors interacting in a given individual. Symptoms can have both biological and psychological or interpersonal meaning, and the patient may be carrying emotional burdens which they are not able to speak of, except through the language of physical pain. McDaniel et al. (1995) point out that many patients who have never spoken of their sexual abuse present to their doctors with abdominal pain. While some patients have great difficulty with coming to terms with the abuse that they have suffered and they continue to carry immense amounts of pain inside of their bodies, those who have close family relationships and a supportive and nurturing family environment are able to reduce the risks of harmful effects (Fleming et al., 1999).

History is an integral part of every person, and as long as people think of the past as the source of all problems they, in a sense, set up an adversarial relationship within themselves. The belief that tragedies of the past cause later problems and render people vulnerable to future strain can become a self-fulfilling prophecy. It is often impossible to know for sure whether a given problem is, or is not, caused by a particular problem and it may be best to assume that there need not be any causal connection between two concomitant problems. This may well be the case with the present study as the researcher sought to investigate and highlight the links between abuse and IBS and no direct links were found. If a reason for this finding may be found it should be looked for in the individual, the resources available to them, and the environment where they are found. It might be that every person has their own IBS story, and that every body tells that story in the way that is right to them. Therefore to look for a general finding, applicable to all, might be futile, but every IBS sufferer, if treated as an individual with a body which has its own poetics of illness will bring this syndrome closer to being a solvable conundrum.

The present study highlights a number of factors not recognised in other studies, and these are to do with the relationship between physician and the sufferer. Lechner et al. (1993) are of the opinion that the association between self-perceived multiple illnesses and vague medical complaints and a history of childhood sexual abuse is not often understood, even by the victim herself. Thus this earlier experience, which so often

women are attempting to forget about, is not likely to be shared with a treating doctor. Many women keep this experience very private, rarely sharing it with anyone. Therefore simply asking a direct question about sexual abuse provides the physician with an important opportunity to identify this problem and to help these women to begin to explore the possible adult healthy consequences of the devastating early assault.

Enck and Wienbeck (1993) report that a history of physical and sexual abuse during childhood or adulthood was found in up to 40% of patients with IBS and organic disorders. This is corroborated by Weber and McCallum (1992), who are also of the opinion that *effective* history taking is the key to the diagnosis of IBS. The fact that up to one third of patients with IBS resort to alternative medicine (Drossman & Thompson, 1992) suggests that physicians may be failing to meet the needs of their patients. Because IBS symptoms are chronic or recurrent, patients should have a long-term relationship with a primary care provider who is able to read and evaluate the patient's verbal as well as non-verbal communication. In order for this relationship to be effective and to aid in healing, the treating doctor needs to investigate earlier abuse experiences, not only physical and sexual abuse incidents, but also as the present study has found, emotional and verbal abuse.



Leserman et al. (1996) point out that despite the high incidences of abuse in IBS sufferers, health care practitioners are unaware of their patients' histories of abuse. They found that physicians seeing these patients were aware of this abuse in only 17% of the abused women. Thus despite the epidemic of sexual and physical abuse, these experiences tend to remain hidden from practitioners treating them, and as a result women tend not to be referred for psychological counselling or services in order to help them address the consequences of the abuse. It is precisely this that the present study highlights, the need for doctors to pose direct questions about abuse, not only sexual and physical abuse, but also a type of abuse largely ignored in the studies previously cited, emotional and verbal abuse. This adds another dimension to the studies carried out earlier, namely, that it is not enough to simply enquire about physical and sexual abuse, but that a history of emotional and verbal abuse also needs to be asked about.

Thus the present study provides some answers and it does it lead to a fuller understanding of the links between IBS and abuse. The present study has sought to scrutinize the association between IBS and abuse from a number of diverse angles, in the process challenging various earlier findings and postulating new topics for further research. It is hoped that the study has made some small contribution to the understanding of women abuse and the interaction between this abuse and IBS.



