

**THE ROLE OF FEAR IN THE LENGTH, PROCESS AND
COST OF PRE-DIAGNOSTIC ILLNESS BEHAVIOUR IN
PANIC DISORDER PATIENTS**

*FEAR - THE COGNITIVE LINK AND CONVERTING FACTOR BETWEEN THE
EFFECTIVE AND INEFFECTIVE MANAGEMENT OF PANIC DISORDER*

by Lesley Clarence

A dissertation submitted to the Faculty of Health Sciences, University of the
Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of
Master of Science (Med).

August, 1997

ABSTRACT

Physiological anxiety symptoms are experienced as an overwhelming panic attack when the person cognitively interprets them as such. **Fear** is the emotion initiating the cognitive perception of personal doom which becomes largely influential on the future process of a sufferer's panic disorder. This study used a multimethod research design to investigate the role of **fear** in panic disorder sufferers' pre-diagnostic help-seeking. Thirty three already diagnosed panic disorder sufferers participated voluntarily. Their help-seeking experiences were quantified in terms of the number and type of treatments sought and their individual financial costs. The directive influence of individual fears' clearly emerged. The narrative data, accessed via semi-structured individual interviews, consistently clustered into positive and negative consultation dynamics. Negative treatment experiences unilaterally reinforced subjects' fears, reciprocally entrenching their panic disorder. Positive treatment experiences consistently disconfirmed subjects' fears which left them energized with a reduced sense of helplessness. These epitomized the beginning of healing. Recommendations are made for future researchers to operationalize this data into clinically accessible diagnostic instrumentation.

DECLARATION

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

Signed: *Lesley Clarence*

Date: *14-6-98*

DEDICATION

To my family
with sincere thanks
for their patience, love and encouragement
during the writing of this thesis.

ACKNOWLEDGEMENTS

I would like to express my thanks to:

My husband Ivan and my children Neil, Jacqui, James and Daniel for their unfailing support, encouragement and forbearance. In particular, I would like to thank Ivan for his help in procuring medical cost information vital to this study.

My supervisor, Marilyn Lucas, who warmly supported and guided me without dominating my efforts, epitomizing the positive and empowering treatment experiences discussed in this study.

Professor M. Berk who introduced me to the immediate prevalence of panic disorder and the urgent associated research requirements.

Charmaine Gordon for her untiring, enthusiastic encouragement.

Zane Wilson, chairperson of the Panic Disorder Support Group in South Africa, for her assistance with both information and the introduction to sufferers.

My good friends, Val and Steve, for their tireless and insightful proof reading of this manuscript.

Finally, to the 33 volunteers in this study, who so willingly opened their homes and their hearts to me and without whom it would not have been possible.

LIST OF TABLES

No.		Page
1	DSM IV Diagnostic Criteria	8
1.1	Symptoms associated with panic attacks	8
2	Open-ended questions	59
3	Direct questions investigating each treatment	61
4	Likert self-rating scales measuring subjects' treatment experiences	61
5	Likert self-rating scales measuring severity of subjects' panic disorder	62
6	Number of males and females in experimental groups	73
7	Mean, range and standard deviation of subjects' ages	73
8	Mean, range and standard deviation of duration of pre-diagnostic help seeking behaviour	74
9	Mean, range and standard deviation of pre-diagnostic treatments	74
10	Symptoms consistent with DSM checklist	75
10.1	Symptoms additional to DSM checklist	76
11	Percentage utilization of different practitioners	78
12	Differential presentation of symptoms	80
13	Number of pre-diagnostic prescribed medications	81
13.1	Number of pre-diagnostic medical procedures	82
13.2	Number of pre-diagnostic psychotherapy treatments	82
14	Mean ratings of treatment experiences on Likert scales	84
15	6 subjects' self ratings of the severity of their pre-diagnostic panic disorder	85
16	Mean, range and standard deviation of total pre-diagnostic medical expenses for all subjects	86
16.1	Mean, range and standard deviation of pre-diagnostic medical expenses for each group	86
16.2	Costs of pre-diagnostic treatments	86
17	Mean, range and standard deviation of costs of practitioners and medical procedures (including medication) for each group	87
18	Mean, range and standard deviation of control subjects' ages	87
18.1	Mean, range and standard deviation of control groups' annual medical expenses	88
18.2	Mean, range and standard deviation of annual medical expenses for both experimental and control groups	88
19	Diagnostic practitioners	89
20	Mean pre-diagnostic medical expenses excluding hospitalization and psychotherapy	110

LIST OF FIGURES

No.		Page
1	Fear - the cognitive link to and influential on the process of panic disorder	20
2	Schematic representation of complimentary deductive and inductive research methodology	57
3	Simple checklist matrix	69
4	Conceptually clustered matrix	70
5	Graphic representation of symptoms experienced	77
6	Graphic representation of practitioners consulted	79
7	Dendogram illustrating the extraction of conceptual meaning from raw data of negative treatment experiences	117
8	Schematic representation of the effects of negative consultation dynamics	128
9	Dendogram illustrating the process from diagnostic consultation dynamics to their behavioural manifestations	143
10	Fear is the key	152

TABLE OF CONTENTS

LIST OF TABLES	vi
LIST OF FIGURES	vii
INTRODUCTION	1
CHAPTER 1	6
CLASSIFICATION AND DIAGNOSIS OF PANIC DISORDER	6
1.1 Delayed Diagnosis	8
1.1.1 Irregular presentation	9
1.2 Diagnostic questionnaires	10
1.3 In sum	11
CHAPTER 2	12
PREVALENCE OF PANIC DISORDER	12
2.1 Difficulties in prevalence research	12
2.2 Brief review of prevalence research	13
2.3 In sum	15
CHAPTER 3	16
THE NATURE AND COURSE OF PANIC DISORDER	16
3.1 The nature of a panic attack	16
3.1.1 The cognitive component	18
3.2 The development of panic disorder	20
3.2.1 A sequenced stages of illness model	20

3.2.2	Insidious infiltration of panic disorder into sufferers' lives	21
3.2.3	The irregular pattern of panic disorder	23
3.2.4	Quality of life in panic disorder	24
3.3	In sum	26
CHAPTER 4		27
THE COGNITIVE BEHAVIOURAL MODEL OF THE AETIOLOGY OF PANIC DISORDER		27
4.1	The cognitive behavioural model	28
4.1.1	The positive and negative feedback loop model	28
4.1.1.1	Components of the positive feedback loop	29
4.1.1.2	Components of the negative feedback loop	29
4.1.2	First and second stage fear model	30
4.1.3	Contingency variables	30
4.1.3.1	Internal cues	31
4.1.3.2	Catastrophic interpretation	31
4.1.3.3	Individual predispositions	31
4.1.3.4	Situational factors	32
4.3	In sum	32
CHAPTER 5		34
HELP-SEEKING BEHAVIOUR IN PANIC DISORDER PATIENTS		34
5.1	Help-seeking as a social concomitant of panic disorder	35
5.1.1	Extended pre-diagnostic help-seeking period	36
5.1.2	Medical consultations as part of the negative behavioural chain	38
5.1.2.1	The practitioner-patient experience	39

5.2	The direct monetary costs of pre-diagnostic help-seeking	40
5.3	Characteristics of help-seeking behaviour	42
5.3.1	Where do panic disorder patients seek help?	42
5.3.1.1	Influences on their choice of help sites	43
5.3.2	How do panic disorder patients present their symptoms ?	45
5.3.2.1	Influences on their symptom presentation	46
5.4	Diagnostic difficulties	47
5.4.1	Some guidelines to effective consultations	49
5.4.2	Psychoeducation	50
5.5	In sum	52
	CHAPTER 6	53
	METHOD	53
6.1	Aims of the present study	53
6.2	Hypotheses	54
6.3	Method	56
6.3.1	Study design	56
6.3.1.1	A word on retrospective and subjective research	57
6.3.2	Subjects	58
6.3.3	Procedure and instruments	58
6.3.3.1	Screening	59
6.3.3.2	Informed consent	59
6.3.3.3	Open-ended technique	59
6.3.3.4	Pre-designed techniques	60

6.3.3.4.1	Direct questions	60
6.3.3.4.2	Self-rating scales	61
6.3.3.5	Justification of instruments used	63
6.3.4	Independent and dependent variables	64
6.3.4.1	Operationalization of dependent variables	65
6.4	Analysis of data	68
6.4.1	Quantitative data	68
6.4.2	Qualitative data	68
6.5	Conclusions	71
CHAPTER 7		72
QUANTITATIVE RESULTS		72
7.1	Subjects	72
7.1.1	Screening and sampling	72
7.1.2	Demographics	73
7.2	Duration of pre-diagnostic help seeking behaviour	74
7.3	Number of pre-diagnostic treatments experienced	74
7.4	Symptoms experienced	74
7.4.1	Symptoms consistent with DSM diagnostic checklist	75
7.4.2	Symptoms additional to DSM diagnostic checklist	76
7.5	Types of practitioners consulted	78
7.6	Symptom presentation	79
7.7	Treatments received	81
7.8	Treatment experience	83

7.9	Severity of panic disorder	85
7.10	Direct medical costs of pre-diagnostic treatments	86
7.11	Diagnosis	88
	Chapter 8	90
	DISCUSSION	90
8.1	Subjects and samples	90
8.2	Fear - the cognitive link	91
8.3	Duration of pre-diagnostic treatment search and number of treatments	95
8.4	Symptoms experienced	97
8.5	Consultation dynamics	97
8.5.1	Practitioners consulted	98
8.5.2	Symptom presentation	100
8.5.3	Treatments received	101
8.5.3.1	Psychotherapy received	101
8.5.4	Treatment experiences	103
8.6	Self ratings of pre-diagnostic panic conditions	107
8.7	Fear - the cognitive link	108
8.8	Direct individual medical costs of pre-diagnostic treatments	111
8.8.1	Practitioner versus treatment costs	112
8.8.2	Comparison with costs of chronic physiological conditions	113
8.9	Diagnosis	114
8.10	In sum	116
	CHAPTER 9	

QUALITATIVE RESULTS AND DISCUSSION	116
9.1 Negative treatment experiences	117
9.1.1 Practitioners' obstinate adherence to one illness cause	118
9.1.2 Lack of discussion	120
9.1.3 Negative test results	122
9.1.4 Unmoved acceptance of condition	123
9.1.5 Arrogant non-committal practitioners	125
9.1.6 Avoidance of anxiety symptoms	125
9.1.7 Dealing with practitioner uncertainty	126
9.1.8 Some specific experiences	127
9.2 Positive treatment experiences	129
9.2.1 Willingness to accept subjects' treatment needs	129
9.2.2 Willingness to discuss openly	130
9.2.3 Negative test results	131
9.2.4 Knowledgeable and communicative	131
9.2.5 Practitioner uncertainty	132
9.2.6 The beginning of healing	133
9.3 General consultation dynamics	133
9.3.1 Patient-condition-practitioner fit	133
9.3.2 The paradox of seeking and avoiding treatment	134
9.3.3 Doctor-active patient-passive role	135
9.3.4 A label alone	136
9.4 A life line	137

9.5	The indirect cost of panic disorder	140
9.6	The diagnostic experience	142
9.7	In sum	145
	CHAPTER 10	147
	CONCLUSION	147
	APPENDICES	154
	REFERENCES	165

INTRODUCTION

Panic disorder is defined by a constellation of psychophysiological, cognitive, emotional and behavioural responses in a human organism that are classified as a mental disorder only when they occur together, repeatedly, over time (Baker, 1992). Although sharing high levels of pervasive and frequently uncontrollable anxiety typical of generalized anxiety disorder, panic disorder is unique, both in its presentation and its subjective experience. Panic disorder presents as the repeated occurrence of panic attacks, leaving the sufferer in a state of extreme and enduring fear. He is afraid of having another debilitating attack, afraid of what the attacks are and afraid of the dreadful effect they could have. In fact, the predominant mood of panic disorder sufferers is fear (Leaman, 1992). Although the fear concomitant of panic disorder is widely recognized and forms part of the diagnostic requirements, the subjective impact of sufferers' fears on the process of their disorder has, to date, not been investigated. It is this that forms the main focus of the present study, specifically the role of fear in panic disorder.

These anxiety episodes or panic attacks occur out of the blue, have no obvious stimulus and comprise severe physiological anxiety symptoms accompanied by an overwhelming sense of imminent physical, emotional or social disaster (Rachman, Levitt & Lopka, 1987). The psychiatric classification and diagnosis of panic disorder requires that these symptoms occur simultaneously within a specific time frame. This is discussed in chapter 1 of this study.

Chapter 2 provides a brief review of research on the prevalence of panic disorder while simultaneously outlining the difficulties in establishing prevalence parameters for a condition like panic disorder, which are largely due to its episodic and irregular presentation and idiosyncratic infiltration and impact on each sufferer's life. These considerations probably account for the discrepancy amongst recorded measures of its incidence which seem to vary from 2% (Lloyd & Jenkins, 1995) to 8% (Gournay, 1995). Even cautiously interpreted, prevalence data emphasizes the urgent need to better understand this debilitating condition.

Although there are no formal prevalence parameters for South Africa, some associated information is startling. Pilot prevalence investigations in Lesotho, Africa reported an alarmingly high occurrence of panic disorder. This is contradictory to traditional beliefs that psychiatric conditions are seldom evidenced in developing countries (Hollifield, Katon, Spain & Pule, 1990). Sociodemographic surveys regularly observe positive correlations between emotional disturbances and acculturation processes, or the realignment of societal norms (McGolderick, Pearce & Giordano, 1982). On this basis twentieth century South Africa represents a high risk population for panic disorder, a fact harshly reinforced by the development of a national panic disorder support group which was initiated in Johannesburg, South Africa, in September 1995 with an immediate voluntary caucus of 45 members. By January 1997, only fifteen months after its inception, this figure had increased to 3 000 members and the group had 35 branches nationwide. Public statements in popular magazines and local media broadcasts empowered many silent sufferers to recognize their condition and seek help openly. This

support group provided most of the subjects used in this study as it offered an accessible network of diagnosed sufferers.

The nature of panic disorder, and its irregular progression and infiltration into sufferers' lives, is discussed in chapter 3. Panic attacks, their associated anxiety and the accompanying sense of doom, or fear (Kaplan & Sadock, 1988) rapidly infiltrate and control a sufferer's entire life (Weinstein, 1995). Irregular behavioural manifestations develop quickly as the sufferer tries to avoid any situation that might trigger another attack (Sheehan, 1982a) and, simultaneously, to get some help, professional or other, in coping with this bizarre condition (Walker & Ashcroft, 1989). Fear is both a precipitating and reinforcing variable in this condition. Trying to alleviate their fear through avoiding trigger situations paradoxically reinforces it. Sufferers become petrified of their ever-present fear. This fear of fear ensnares them in ineffective avoidance behaviours which superficially create an illusion of dealing with their problem.

Chapter 4 provides background information on the aetiology of panic disorder from the cognitive behavioural aetiological model as it is the most relevant to the method and hypotheses of this study. The central tenet of this model is that panic disorder develops in accordance with a subject's cognitive interpretation of his panic attacks (Waring & Foreman, 1988). This study follows this tenet and proposes specifically that sufferers' fear cognitions direct their subjective interpretation of their panic attacks and hence the development of their panic disorder. Panic disorder sufferers' fear cognitions tend to cluster around the fear of dying, going mad or losing control to the point of total embarrassment in public (Libbert, 1984).

Chapter 5 is devoted to panic disorder sufferers' help-seeking behaviour. Panic disorder sufferers consult many and different medical practitioners and other health related services regularly (Katerndahl & Realini, 1995). Despite this, they typically endure a lengthy period of ineffective treatment searching before they are correctly diagnosed (von Korff & Eaton, 1989). During this time, sufferers often undergo many unnecessary and unpleasant medical investigations, at huge psychological, social and financial costs (Markowitz, Weissman, Ouellette, Lish & Klerman, 1989). It has been suggested that these ineffective treatment experiences can easily become part of, and reinforce, the negative and defensive behavioural cycles typical of panic disorder (Katon & Vitaliano, 1987). A correct and efficient diagnosis empowers subjects to begin regaining control of their lives and their functional efficacy (Weekes, 1983). It is suggested that a primary construct underlying the lengthy and costly process of pre-diagnostic help-seeking behaviour in panic disorder sufferers is their irrational but overwhelmingly threatening fear. It is anticipated that subjects' fear cognitions will directly influence their illness behaviour.

The prevalence and negative infiltration of panic disorder into sufferers' lives is sufficient to reinforce the critical need to investigate and better understand this condition. This need is further exacerbated when considering the extended and often psychologically, physically, and financially crippling process of help-seeking these sufferers endure before they acquire an accurate diagnosis and effective treatment plan. The aim of this study is firstly to glean a better understanding of the phenomenology of panic disorder sufferers' help-seeking behaviour, specifically the relationship between sufferers' particular fear and the biological, psychological, financial and social areas of his condition.

The secondary aim of the study is to suggest the use of this understanding, to more sensitively recognize and diagnose panic disorder.

A multimethod research design, consisting of both quantitative and qualitative techniques, will be used to investigate the complex pre-diagnostic help-seeking behaviour of panic disorder sufferers. Both methods have been chosen to best represent the biopsychosocial focus of this study which recognizes the uniqueness of each individual's experience as well as the existence of social regularities. The duration and cost of the pre-diagnostic help-seeking period, the number and type of practitioners consulted, the type of symptoms experienced, the presentation of symptoms to practitioners and the subjects' experiences of each treatment received will be quantified on self-rating scales. Each subject's unique experience of his panic condition will also be qualitatively accessed during a semi-structured interview. The quantitative and qualitative data will overlap, each substantiating and adding to the results of the other. The planned methodology is discussed in detail in chapter 6.

Chapter 7 details the quantitative results mentioned above. These results are discussed in chapter 8 and related to the proposed hypotheses. Chapter 9 relates the qualitative story of this research study.

Chapter 10 concludes the investigation with an overview of the study, outlining its observations and suggesting possible directions for future research.

CHAPTER 1

CLASSIFICATION AND DIAGNOSIS OF PANIC DISORDER

Prior to 1980 panic disorder and general anxiety were combined under the heading of anxiety neurosis in recognized classificatory systems. Panic disorder was given official status as a separate psychiatric syndrome in the diagnostic nomenclature of the widely recognized Diagnostic and Statistical Manual of Mental Disorders III (DSM III) in 1980.

Perhaps most influential on the creation of a separate diagnostic syndrome for panic disorder was its idiosyncratic presentation. Specifically, panic disorder presents as sudden, discrete and episodic bursts of anxiety, accompanied by a relatively consistent array of somatic symptoms and a strong sense of impending doom. This condition does share many predisposing, precipitating and reinforcing characteristics with other anxiety disorders and often occurs simultaneously with generalized anxiety disorder, major depression and substance abuse conditions (Weinstein, 1995).

The advent of the DSM III category of panic disorder in 1980 provided researchers, clinicians and sufferers with a whole new ethos and initiated an energetic wave of research. A large and interesting bank of knowledge quickly amassed, reflecting the many different theoretical stances of the researchers. This has culminated in panic disorder being recognized as a complex biopsychosocial phenomenon

so that a sound understanding of the condition requires the contributions of information from all associated subsystems (Waring & Foreman, 1988).

Under the rubric of a biopsychosocial, or systems, approach, which recognizes the complex reciprocal interaction of hereditary, biological, cognitive, psychological, behavioural and social factors, a set of specific diagnostic criteria, as provided by DSM III, and revised in DSM IV (table 1), is invaluable. It lends order to a potentially overwhelming and diffuse array of symptoms and facilitates communication amongst professionals and lay people alike. Diagnosis on the basis of discrete criteria from a biopsychosocial perspective epitomizes carving a distinction or creating an immediate reality with which to work (Keeney, 1983). This effect infiltrates the individual's entire systemic arrangement through the cybernetic interaction of all associated subsystems, thus initiating change. Although specific, discrete and sometimes considered inadequate (Paykel & Priest, 1992), clear diagnostic criteria offer a useful starting point to healing.

Table 1 - Diagnostic criteria for Panic disorder

- a. At some time during the disturbance, one or more panic attacks (discrete periods of intense fear or discomfort) have occurred that were (1) unexpected, i.e., did not occur immediately before or on exposure to a situation that almost always causes anxiety, and (2) not triggered by situations in which the person was the focus of others' attention.
- b. Either four attacks (as defined above) have occurred within a four-week period, or one or more attacks have been followed by a period of at least one month of persistent fear of having another attack.
- c. At least four of the symptoms listed in Table 1.1 occurred during at least one of the attacks.
- d. During at least some of the attacks, at least four of the symptoms developed suddenly and increased in intensity within ten minutes of the beginning of the first symptom noticed in the attack.
- e. It cannot be established that an organic factor initiated and maintained the disturbance (e.g. amphetamine or caffeine intoxication, hyperthyroidism).
- f. The absence of agoraphobia

Table 1.1 - Symptoms associated with Panic attacks

- shortness of breath (dyspnea) or smothering sensations
- dizziness, unsteady feelings or faintness
- palpitations or accelerated heart rate (tachycardia)
- trembling or shaking
- sweating
- choking
- nausea or abdominal distress
- depersonalization or derealization
- numbness or tingling sensations (paresthesias)
- flushes (hot flushes) or chills
- chest pain or discomfort
- fear of dying
- fear of going crazy or of losing control

Adapted from Diagnostic and statistical manual of mental disorders, 4th ed. Washington, D.C.: American Psychiatric Association, 1994: 397-403.

1.1 Delayed Diagnosis

Despite these precise diagnostic criteria many patients remain undiagnosed, or are incorrectly diagnosed, although they frequently visit medical and mental health practitioners (Forrest & Ricketts, 1995). This raises questions regarding both the application and suitability of

these classifications, especially to a primary care setting where the majority of psychiatric patients are first seen (Lisenberg, 1992).

Primary care practitioners are faced with a multitude of different types and intensities of illnesses and are regularly forced to make critical decisions (Katon, 1993). Practitioners appear to adequately identify psychiatric patients. The shortcoming is in the **differential diagnosis** of the condition and ensuring the proper and most effective treatment plan (von Korff, Shapiro, Burke, Teitlebaum, Skinner, German, Turner, Klein & Burns, 1987).

1.1.1 Irregular presentation

Panic disorder both presents irregularly and mimics many other conditions. The somatic symptoms of panic disorder could equally indicate an organic condition such as mitral valve prolapse, hypoglycemia, hypothyroidism, temporal lobe epilepsy, as well as the abuse of or withdrawal from alcohol, caffeine or other recreational drugs (Katon, 1993). It is important that a practitioner, while investigating these possible causal conditions, is receptive to the possibility of a panic disorder diagnosis.

It is, likewise, important to be sensitive to other fairly common somatic symptoms of panic disorder not included in traditional diagnostic criteria, such as headaches, diarrhoea, insomnia, chronic fatigue, coldness of hands, thoughts of suicide, intrusive thoughts and ruminations (Forrest & Ricketts, 1995), hence, avoiding the untimely dismissal of a panic condition.

Diagnosis is further complicated by the many patients who have recurrent panic attacks but do not meet the full criteria for panic disorder. Research reveals that these simple panic attacks have a relatively high lifetime prevalence, reportedly 3.6% in the general adult population (Klerman, Weissman, Queller, Johnson & Greenwald, 1991). It also seems that simple panic attack sufferers fall, intermediately, between those with full-blown panic disorder and those with other psychiatric disorders, on measures of impaired quality of life and medical service utilization (Klerman et al., 1991). It seems appropriate that panic attacks which do not meet the criteria for full blown panic disorder should be considered as part of a differential diagnosis.

Despite these difficulties, a comprehensive study of diagnostic procedures showed properly trained and equipped primary care physicians able to correctly diagnose the disorder in 100% of cases (Von Korff et al., 1987).

1.2 Diagnostic questionnaires

Researchers have suggested the use of relatively direct interviews, aimed at the specific symptoms of specific disorders, as useful in promoting effective and efficient psychiatric diagnosis (Paykel & Priest, 1992). The classificatory advances, and associated symptom checklists, of the DSM 111 facilitated the creation of such a bridging instrument, in the form of the National Institute for Mental Health's (NIMH) Diagnostic Interview Schedule (DIS) (appendix 1). This questionnaire offers a structured interview format aimed at simplifying the many tasks involved in making a diagnosis. It can, equally, be used by lay

interviewers and professionals and seems to be a reliable detector of panic disorder (Robins, Helzer, Croughan & Ratcliff, 1981).

Simpler and shorter diagnostic questionnaires (appendix 2) have subsequently been developed and are widely utilized, especially in community projects, aimed at the early detection of undiagnosed panic disorder sufferers.

These and other instruments, sensitively employed, could help organize primary practitioners' diagnostic dilemmas and reduce the large number of incorrectly diagnosed, or non-diagnosed, cases of panic disorder (Lloyd & Jenkins, 1995).

1.3 In sum

The delineation of discrete classificatory criteria, used with wisdom and empathy, could be an important step towards alerting professionals and the general public to the occurrence of panic disorder, thus improving the early detection of sufferers, the provision of effective treatment and destigmatizing the condition.

CHAPTER 2

PREVALENCE OF PANIC DISORDER

Prevalence surveys form part of epidemiological research, specifically investigating the distribution of a disorder within the population (von Korff & Eaton, 1989). The official recognition of panic disorder in DSM III gave impetus to the need to estimate the actual incidence and distribution of this disorder. As a result, during the last two decades, epidemiological researchers have been preoccupied with the difficult problem of counting the number of panic disorder cases in the community or with prevalence surveys.

2.1 Difficulties in prevalence research

The prevalence of panic disorder is difficult to measure because of the many "closet" or undiagnosed, as well as misdiagnosed, cases and because of the inconsistent presentation of this chronic episodic condition (Dilsaver, 1989). Sufferers often have intensely severe periods with attacks more than daily and then go into sudden remission experiencing fewer attacks (Katerndahl & Realini, 1993). This is further complicated by the irregular staged development of the psychological and behavioural symptoms which follow the initial panic attacks (McFayden, 1989). Panic disorder typically begins with the occurrence of panic attacks, followed by each sufferer's idiosyncratic cognitive appraisal of his symptoms and sensitization to them. This usually initiates reactive avoidance strategies which become self-maintaining. The process of panic disorder is discussed in detail in chapter 3. For present purposes, it is simply noted to indicate the

variable pattern of the condition within established descriptive frameworks.

Prevalence surveys to date have largely been cross-sectional, fixed time measurements (Baker, 1992). Bearing the above contingency variables in mind, it is clear that a nominal head count alone will provide only a limited perspective on this disorder. Differences in prevalence rates could equally be measures of differences in the incidence of the disorder, in the duration of severe episodes and in their probability of recurrence (van Korff & Eaton, 1989).

2.2 Brief review of prevalence research

Despite the above limitations, prevalence research does indicate the significant frequency of panic disorder in the general population. Estimates of the life time prevalence of the disorder range from 2% (Lloyd & Jenkins, 1995) to as high as 9% (Forrest & Ricketts, 1995).

A detailed and informative prevalence survey was conducted by the National Institute for Mental Health in five independent sites (Baker, 1992). Panic disorder sufferers were identified by their responses to an adaptation of the DIS questionnaire, which was discussed in chapter 1. These researchers identified three levels of panic disorder and reported prevalence data accordingly. Their results can be summarized as follows:

- the lifetime prevalence of panic disorder in the general population was 3,8%;
- the prevalence of panic attacks in patients not meeting the full criteria for panic disorder was 5,6%;

■ the prevalence of limited-symptom attacks was 2,2%.

A consistent finding across most prevalence studies is the predominance of panic disorder amongst females, younger persons and separated or divorced people (Weinstein, 1995) and that panic disorder tends to peak in the 25 - 44 year age group (Baker, 1992).

Hollifield et al. (1990) conducted the first investigation of the occurrence of panic disorder in a developing country. Their results indicate that 11% of 356 subjects investigated met the diagnostic criteria for panic disorder. This is a significantly higher prevalence than recorded in the United States of America and contrary to the common perception that developing countries are almost without psychiatric conditions encountered in Westernized nations.

Most mental illness is treated in primary care settings, suggesting the population of general practitioners' patients as one worth investigating to indicate the prevalence of panic disorder. It has been estimated that a general practitioner with a list size of 2 500 patients identifies approximately 300 cases with a non-psychotic mental illness per year (Lloyd & Jenkins, 1995). Panic disorder patients are said to comprise as many as 27% of those who consult general practitioners with psychiatric symptoms (Kaplan & Sadock, 1988). It may then be estimated that approximately 81 persons suffering from panic disorder consult a general practitioner with a list size of 2 500 annually.

2.3 *In sum*

Although these results and statistics must be recognized as a still snapshot from the unfolding progression of the disorder, they are, nonetheless, startling. Panic disorder is clearly a prevalent condition. Recognition of the limitations of prevalence research clearly highlights the need for broad based biopsychosocial investigations of the disorder.

CHAPTER 3

THE NATURE AND COURSE OF PANIC DISORDER

3.1 *The nature of a panic attack*

The single most recognized identifying characteristic of panic attacks is their unexpectedness and unpredictability. A person often experiences an attack, especially a first attack, in what he would have described as benign, even relaxed, conditions, such as holidaying with loved ones or pottering in the garden.

The terrifying subjective experience of a panic attack is poignantly captured in the following letter from a sufferer:

"Suddenly, unexpectedly, for no immediate apparent reason, my body was overwhelmed by a surge of elemental panic. Everything seemed to race out of control before I could collect my mind to cope with the onslaught...my mind was so overcome, I could feel my vision go off. Everything faded out and became detached, and my heart felt like it wanted to jump out of my chest. I felt very dizzy and lightheaded. My balance got unsteady. My legs turned to jelly. The fluorescent lights seemed intensely bright and I seemed acutely sensitive to noise. As I felt beads of sweat breaking out on my skin, I noticed I was trembling and having difficulty controlling the shaking. I was also acutely short of breath and the tightness in my chest worsened the urge to gasp for air. I felt that if I couldn't get out quickly, I would surely suffocate. The sheer terror and mental panic were beyond anything I could relate to. It was as

if something really terrible was about to happen, or that I was dying but wasn't ready ...I had a strong urge to run, but didn't know where or from what (Leaman, 1992, p.128)."

A panic attack is a sudden and discrete period of intense arousal frequently accompanied by a sense of imminent danger and an urge to escape. It mimics the primary human alarm reaction to a threat, manifesting in high physiological arousal and negative affect, originally designed to enhance our capacity to initiate a flight or fight response. In the grip of the all consuming arousal of a panic attack, the individual can seldom identify a realistic danger cue or threat, so that dispelling this seething cauldron of arousal through appropriate flight or fight is impossible.

Human feelings are a two-phase phenomena requiring the initial physical symptoms of a primary emotion, followed by the person's definition of these physiological cues (Beck, Laude & Bohnert, 1974). A panic attack begins as an unexpected fear emotion, characterized by an adrenalin surge and most commonly manifesting in physiological arousal symptoms such as shaking, heart palpitations, sweating and shortness of breath. Defining this untimely fear emotion is difficult. The conditioned cognitive interpretation of a fear emotion in human beings is danger or doom (Beck, Sokol, Clark, Berchick & Wright, 1992). The physiological symptoms of this primary fear emotion designating a cognitive interpretation of danger sum to an intense feeling, which the person cannot easily rationalize or justify, and experiences as overwhelming anxiety (Rachman, Levitt & Lopotka, 1987).

Anxiety restricts cognitive flexibility or functioning and typically interrupts the person's immediate thought processes, forcing their attention away from the task at hand to an internal self-evaluative focus (Barlow & Cerny, 1985). At this early stage of the condition, the person enduring a panic attack's focus becomes interoceptive. Unable to explain, understand or cope with the experience renders the person helpless, with a sense of uncontrollability (Zuercher-White, 1995). A panic attack seldom continues longer than ten minutes and subsides as unexpectedly as it started. The person is left exhausted, scared and confused (Zane, 1989).

3.1.1 The cognitive component

Not every experience of an unexpected arousal reaction develops into a full-blown panic attack. The key, from a cognitive behavioural perspective, lies in the interpretation of the emotion or of the physiological arousal cues. This interpretive process determines the person's emotional and behavioural reactions (Beck, Laude & Bohnert, 1974). A more detailed discussion of the cognitive interpretation of a panic attack is given in chapter 4, with only a qualitative description here.

Some people can quickly associate physical cues with an external event. They can identify the smoky atmosphere in a restaurant as causal to their sensation of a tightening chest and suffocating feeling. This person will initiate an appropriate flight or fight response such as requesting a different table or opening a window. This reaction will not significantly interrupt his immediate attention focus or shift his concentration towards his internal physiological activities. His fear

emotion was experienced as realistic, appropriate and manageable. The event is quickly dismissed. Likewise, panic disorder sufferers who have learnt to control their condition, interpret the physiological cues as tiresome, but not dangerous, which devoids an attack of its panic or fear element. It is experienced simply as a brief period of unpleasant somatic sensations (Barlow & Cerny, 1985).

Other people, however, cannot make such rational interpretations of this unpredicted anxiety state. Those minutes of high emotional arousal and intense fear induce, instead, a sense of loss of control and helplessness (Rachman, Levitt, Lopatka, 1987). This results in a period of cognitive disorientation. During those few debilitating seconds of extreme arousal, higher level reflective processes become dissociated from lower level automatic processes (McFayden, 1989). A non-pathological explanation of this autonomic arousal and intense fear is unavailable and the event is experienced as catastrophic. This primary alarm reaction, or fear response, is then believed to indicate the imminent danger of a physical or emotional collapse and is experienced as a complete panic attack. Panic attacks can thus be described as the clinical manifestation of the primary fear emotion, comprising unexpected physiological arousal, and its catastrophic interpretation. Panic has been described as unadulterated fear (Barlow & Cerny, 1985).

The rationally inappropriate fear emotions experienced during the panic attack develop into **fear perceptions** which focus on the most severe and threatening human physical and emotional phenomena - phenomena which are all associated with human helplessness. These perceptions seem to consistently cluster into three groups: a fear of dying, going mad or losing control in public (Libbert, 1984).

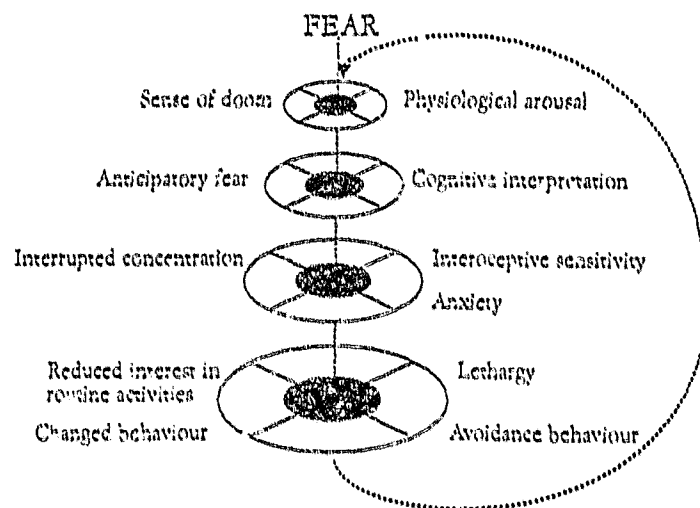
3.2 The development of panic disorder

3.2.1 A sequenced stages of illness model

There are widespread individual differences in the way simple panic attacks develop into a fully-blown panic disorder. However, considerable similarities have been noted, making the use of descriptive models possible. A sequenced stages of illness model has been postulated, and is widely accepted, as an appropriate explanation of the process of a panic disorder (McFayden, 1989). This model typically identifies four stages:

1. The disorder begins with one or more sudden, unexpected full-blown panic attack(s).
2. These events are construed as highly dangerous.
3. Following the early spontaneous attacks the person becomes afraid of and, therefore, oversensitive to, internal physiological sensations.
4. The sufferer develops strategies to avoid, escape or minimize the feared effects of panic attacks.

Figure 1 - Fear - the cognitive link, central to and influential on the process of panic disorder



The four stages of this sequenced stages model depict the complex psychophysiological, cognitive, emotional and behavioural components integral to panic disorder (von Korff & Eaton, 1989). These criteria must be recognized as broad generalizations. The course of a panic disorder is irregular within the boundaries of these identified stages, mainly because it depends on the interaction of a number of different factors (Durham, 1989). These influencing factors would include the degree to which the sufferer avoids situations believed to be responsible for triggering off attacks, the reaction of significant others, the level of general tension experienced from day to day, and his ability to develop adaptive coping strategies for reducing levels of arousal which would assist him appraise internal sensations in a more realistic manner (Beck et al., 1992). Central to all these interacting subsystems is the sufferer's initial cognitive interpretation of the attack and the degree of his ensuing fear. Fear is the emotion that gives rise to the cognition, that gives rise to the behaviour, all of which interactively monitor the severity of the panic condition.

3.2.2 Insidious infiltration of panic disorder into sufferers' lives

The impact that panic disorder has on a sufferer's life goes far beyond the number of panic attacks he experiences. The sense of helplessness and uncontrollability he feels during an attack induces acute and intense fear. It is very difficult for sufferers to make sense of the

unusual and unpredictable physiological and cognitive fear symptoms of panic attacks. Their usual sickness frameworks and behavioural repertoires are inadequate (Clark, Beck & Beck, 1994). Often, the only cue to the intense experience of a panic attack is the internal arousal the sufferer starts to feel (Beck et al., 1992). Panic disorder patients develop an acute sensitivity and a vigilance around these interoceptive stimuli (Barsky, Cleary, Sarnie & Ruskin, 1994) and also tend to misinterpret them as dangerous and overestimate their subjective personal risk (Schmidt, Jacquin & Telch, 1994). The experience is one of imminent doom. The human reaction is to fight or flee but he does not know to where or from what to flee. The terror of these minutes quickly manifests in altered behavioural patterns. These behaviour patterns are reactive on the unexpected and unfathomable physiological fear response, and often initiated during a period of cognitive disorientation (McFayden, 1989) so that the ensuing behaviour typically appears irrational.

The physiological symptoms of arousal, the perceptual processes which hyperfocus on these symptoms and the cognitive appraisal of them as dangerous, interact reciprocally to maintain an anxiety state. This anxiety quickly develops into pervasive anticipatory fear which seems to be functionally related to the development of a panic disorder (Leaman, 1992). Anxiety further restricts cognitive flexibility and exhausts the human person (Levitt, 1971). Panic attack sufferers quickly find that their daily routines require sustained conscious effort. This is doubly difficult because their mental energies have become internally focused and preoccupied with attending to their attacks. Overtly, this manifests in lethargy and disinterest in previously enjoyed activities, while the sufferer's focus is absorbed in coping with his pervasive fear.

Panic disorder sufferers' typical coping behaviours attempt to avoid anything or any place that seems associated with or likely to bring on another attack, or make it worse. These behavioural changes appear irrational, the patients are afraid and feel foolish, making them reticent to discuss their changed behaviours or changed needs (Ingham, 1993), but the immediate relief offered by the avoidance behaviour quickly reinforces it for the sufferer (Forrest & Ricketts, 1995). This impacts almost immediately on their interpersonal relationships, their social functioning and their work efficacy (Weinstein, 1995). These are the condition's first infiltrations into the sufferer's broader life systems, or into his quality of life and epitomize what has been referred to as panic disorder's biopsychosocial nature.

A lack of understanding of the condition in both the sufferer and significant others in his life is one of the greatest reasons for its negative impact on his quality of life. The inability to rationally explain his condition increases his sense of loss of control (Rachman, Levitt & Lopatka, 1987) exacerbated by the disruption of his concentration due to his intensely anxious state (Leaman, 1992). The resultant defensive behaviours, typically manifesting in a series of running away, hiding and avoiding (Ingham, 1993), further add to his sense of uncontrollability and a vicious negative behavioural vortex develops.

3.2.3 *The irregular pattern of panic disorder*

Avoidance behaviour must be distinguished from phobic behaviour which constitutes a different psychological syndrome, although often occurring co-morbidly with panic disorder. Avoidance behaviour that is

integrally part of panic disorder is irregular, not situation specific and epitomizes a desperate and frenetic attempt to escape the horror of another panic attack (Sheehan, 1982a). These irregular behavioural manifestations make panic disorder even more perplexing for both the sufferer, significant others in his life, and the medical practitioners he consults (Peykel & Priest, 1992). The driving force behind this behaviour is the absolutely unbearable fear of another panic attack. The mean latency period between the initial panic attacks and the development of avoidance behaviour has been estimated at three months with a range from one day to two years (von Korff & Eaton, 1989). These desperate and dysfunctional behaviours increase the sufferers' anxiety and facilitate the repetition of panic attacks. Once experienced, whether the triggers are identified or not, it seems that panic can be reproduced "spontaneously" merely by association or memory (Zane, 1989). The progress of panic disorder is individually variable but, generally, without treatment it insidiously and rapidly invades the person's being and life style (Leaman, 1992).

3.2.4 Quality of life in panic disorder

The sequenced stages of illness model describes the process of panic disorder as evolving from physiological symptoms, to cognitive, psychological and behavioural manifestations (McKayden, 1989). The course of this evolution depends on the complex interaction of hereditary, biological, cognitive, psychological, behavioural and social influences (Weissman et al., 1989) and directly and reciprocally influences all these systems. It is becoming increasingly evident that an understanding of panic disorder requires the scrutiny of its psychological and social concomitants, not as mere by-products or

inconsistent reinforcing stimuli, but as integral to the qualitative experience of the disorder (Markowitz et al., 1989).

Panic disorder sufferers report more impairment in perceived physical and emotional health and reductions in occupational and financial functioning than those suffering other psychiatric disorders (Klerman, 1991). They are often far too afraid to take holidays or travel outside of their safety network which usually comprises medical practitioners, pharmacies and emergency rooms (Gournay, 1995). Self medication is a common and secret coping mechanism and companion to panic disorder (Baker, 1992). Sufferers are afraid and unsure of their symptoms but equally afraid of facing another day or night without some help. Over-the-counter medications are often the most easily accessible in the frenzy of the fear of an attack and the overwhelming fear of collapse (Ashcroft & Walker, 1989).

Recognizing the psychosocial concomitants to panic disorder and their impact on the sufferer's qualitative experience of life, helps clarify the frequent reports of continued functional impairment after effective, short term treatments have reduced the actual number of panic attacks experienced (Klerman, 1991). It also lends validity to sufferers' self reports of improvement only when these aspects have been dealt with, even despite a much earlier psychiatric diagnosis and biologically effective treatment. Patients need to develop a personal understanding of their problem and address its impact on their lifestyles, to alleviate their sense of helplessness (Weckes, 1983). A sense of helplessness is directly related to the level of fear experienced (Forrest & Ricketts, 1995). The negative behavioural manifestations are resultant on the intensity of fear and helplessness experienced (Cloitre, Heimberg, Liebowitz & Gitow, 1992). Furthermore, as much as the severity of

panic attacks is relative to the intensity of accompanying fear, dispelling that fear is likewise positively related to improved social and occupational functioning (Zane, 1989) and reduced anxiety (Barlow & Cerny, 1985), thus alleviating the severity of the disorder.

The frequency of panic attacks is clearly only part of the syndrome. The consecutive qualitative symptoms must be recognized as integral to the condition and, therefore, as a necessary part of treatment and research. The qualitative experience of panic can be quantified in anxiety ratings, quality of life ratings and observations or ratings of the degree of avoidance behaviours (Weinstein, 1995).

3.3 *In sum*

Panic attacks represent the pathological manifestation of the primary fear emotion which quickly becomes associated with intense anxiety feelings. This unpredictable and inexplicable experience flusters the individual's rational thought processes, so that he can only interpret the event as signalling imminent doom. This intensifies his fear, initiating repeated panic experiences and ineffective behavioural changes, typically characterized by the avoidance of events believed to trigger these attacks. Panic attacks are not situation specific so that resultant avoidance behaviour, following their path, is irregular and confuses both the sufferer and significant others in his life. These social and psychological accompaniments to panic insidiously creep into the individual's life and soon dominate his existence.

CHAPTER 4

THE COGNITIVE BEHAVIOURAL MODEL OF THE AETIOLOGY OF PANIC DISORDER

Aetiological research is most valued for the direction it offers both preventative and healing treatments. Translated into clinically accessible methodology, aetiological research could enhance the lives of many panic disorder sufferers by directing effective treatment (Regier, Hirschfeld, Goodwin, Gurke, Lazar & Lewis, 1988). Eaton, Badawi & Melton (1995) clearly illustrate this in their investigation of the precursors to panic disorder. Their results include the predictive power of the simple question, "Are you a nervous person?" This question correlated to the development of panic disorder during the following year in 60% of their research subjects. It is these kind of simple specifics, made accessible to primary health workers, that could significantly reduce the misdiagnosis of panic disorder.

Specific aetiological models representing the paradigm of their researcher are individually unable to address the problem of panic disorder in all its complexity but have great heuristic and clinical value if seen as part of the broader contextual picture (Margraf & Ehlers, 1989). The following discussion focuses on the cognitive behavioural aetiological model because its central assumption is that cognitive processes translate external events into meaningful internal events which then become the pathogenic agents (Teasdale & Barnard, 1993) and the central assumption of this study is that subjects' fear cognitions influence their interpretation of their panic attacks which then directs the course of their condition.

4.1 *The cognitive behavioural model*

Two of the central tenets of a cognitive behavioural aetiological model of panic disorder include the nature of the triggering events (internal vs. external) and the content of feared consequences (immediate bodily/mental catastrophes vs. other more long-term negative events). From this perspective, panic attacks are not spontaneous events but rather the consequence of a feedback loop between bodily sensations and the person's reaction to them. Cognitive behavioural theorists use various heuristic descriptive models explaining these assumptions. A brief discussion of the Positive and Negative Feedback Loop Model (Margraf & Ehlers, 1989) and the First and Second Stage Fear Model (Weekes, 1983) will be used to illustrate this perspective.

4.1.1 *The positive and negative feedback loop model*

This model describes the link between physiological or interoceptive cues and the experience of panic in terms of positive and negative feedback loops (Margraf & Ehlers, 1989). The positive feedback loop is fed by physiological, cognitive and emotional responses and is a quick process culminating in a panic attack. Clark (1987) explains individual's perceptions of the spontaneity of a panic attack as due to the failure to recognize the factors feeding this positive loop.

The positive feedback loop operates simultaneously with a negative feedback loop which influences all the components of the positive feedback loop and serves to reduce anxiety (Margraf & Ehlers, 1989). The negative feedback loop is represented by effective coping mechanisms and assists with the appropriate and rational appraisal of

challenging events, as opposed to the rapid escalation of fear and catastrophic interpretations represented by the positive feedback loop.

4.1.1.1 Components of the positive feedback loop

- Physiological or emotional cues Physiological changes occur for which the individual cannot identify a precipitating stimulus (Margraf & Ehlers, 1989).
- Cognitive cues The person notices the physiological changes.
- Cognitive interpretations The physiological changes are associated with immediate danger (Barlow & Cerny, 1985).
- Fear The person experiences intense and inexplicable fear which increases both the physiological and cognitive components and completes the positive feedback loop. The fear response escalates to a panic attack. The positive feedback loop is a fast process.

The four interactive components of the positive feedback loop mirror the four stages of the development of panic disorder identified in the sequenced stages of illness model discussed in chapter 3, section 3.2.1.

4.1.1.2 Components of the negative feedback loop

Components of negative feedback processes include self limiting activities such as habituation, fatigue and homeostatic mechanisms (Margraf & Ehlers, 1989); repeated reality testing invalidating catastrophic anticipations and coping mechanisms, including breathing techniques (Rapee & Barlow, 1992); distraction strategies (Forrest & Ricketts, 1995); cognitive strategies (Clark, Beck & Beck, 1994); and help-seeking behaviour (Katerndahl & Realini, 1995). The negative feedback loop operates more slowly than the positive feedback loop

and helps explain why panic ends or anxiety decreases over time. Cognitive behavioural therapy for panic disorder aims to stimulate the mechanisms of this negative feedback loop.

4.1.2 First and second stage fear model

Weekes (1983) describes the process in terms of first and second stage fear. The initial part of a stress reaction consisting of mainly somatic sensations, such as a thumping heart, chest pain, giddiness, sweating, agitation and shortness of breath, are described as the "first fear" reaction. These symptoms are seen as self-curative given time and rest. Weekes places great emphasis on the "second fear" stage which she characterizes as a sense of bewilderment, alarm and flashes of almost incapacitating terror. This stage is a reaction to the "first fear" stage and produces more physiological sensations, causing more alarm, and an ever-increasing spiral of anxiety symptomatology. The escalation of panic episodes into a severely disabling condition depends on interoceptive cueing of panic, perception of threat and fear of fear.

4.1.3 Contingency variables

The variables influencing the probability of firing of the positive feedback loop, or second stage fear, to a point of panic, include internal cues, catastrophic ideations, individual predispositions and situational factors.

4.1.3.1 Internal cues

Panic patients are more likely to **experience** physical symptoms and are more **sensitive** to their occurrence. These physical symptoms are exaggerations of normal bodily processes and panic disorder patients experience them more frequently and at a higher level (Barlow & Cerny, 1985).

4.1.3.2 Catastrophic interpretation

The heightened occurrence and awareness of somatic symptoms does not directly trigger panic but operates via their interpretation or association with danger (Margraf & Ehlers, 1989). Thoughts influence feelings, behaviours and moods. Panic patients report catastrophic ideations or interpretations of physiological arousal and these distortions typically centre around physical (e.g. death, heart attack) or mental (e.g. losing control, going crazy) catastrophes (Rapee, 1985). Research studies very consistently show that fear cognitions, particularly fear of physical or mental collapse, are more regularly reported by panic disorder sufferers compared to other clinical and normal control groups.

4.1.3.3 Individual predispositions

Attempts to identify individual predispositions to panic disorder have shown some common trends but these are not evident in all panic patients. It seems that different diatheses precipitate the experience of panic by a common pathway. Cognitive behavioural theorists propose that this pathway, or the link between the physiological cues and a panic attack, are cognitive and emotional reactions centring on danger

and experienced as fear (Barsky et al., 1994) or as incapacitating terror (Weekes, 1983).

4.1.3.4 Situational factors

Situational factors impact on how internal or physiological cues link into the positive feedback loop. This seems directly linked to the availability of both explanations for the sensations and of coping resources (Rachman, Levitt & Lopatka, 1987). Panic patients report fewer catastrophic cognitions and less general distress during the experience of physiological anxiety cues in the presence of a safe person (Carter, Hollon, Carson & Shelton, 1994). Likewise, expected panic attacks seldom carry the same fear intensity as unexpected attacks (Barlow & Cerny, 1985). Typical situational factors associated with the exaggeration of panic include driving on a busy highway, shopping malls and standing in queues (Margraf & Ehlers, 1989). Medical treatments experienced as negative and leaving a sufferer confused and helpless can become a situational variable reinforcing a panic condition (Andrasik, 1990). These external situations quickly become conditioned fear cues and the sufferer adjusts his behaviour in an effort to avoid these learnt cues.

4.3 In sum

The central focus of the cognitive model of panic disorder is fear related to coping during unusual or unfamiliar events. Panic attacks involve the interpretation of terror around an unusual somatic event, resulting in an exaggerated emotional experience of fear. Clinically, fear and panic, though qualitatively different, seem linked quantitatively, passing from one phase to the other as a result of an

overpowering preoccupation with, and response to, increasing numbers of imagined and experienced dangers (Forrest & Ricketts, 1995).

CHAPTER 5

HELP-SEEKING BEHAVIOUR IN PANIC DISORDER PATIENTS

Panic disorder very quickly becomes the sole focus of sufferers' existence. Their lives become a series of avoiding anything that might precipitate or worsen an attack, their cognitions become internally focused, always alert for a cue signaling another attack. Pertinent amongst the concomitants of panic disorder is the time, energy, emotionally and financially consuming process of help seeking. Panic attacks are too frightening to overlook, deny or ignore but finding the correct, or most effective help, is difficult. Panic disorder patients are amongst the most frequent users of mental health and medical services (Salvador-Carulla, Sequi, Fernandez, Cano & Canet, 1995) yet the mean latency period between the onset of panic attacks and entering an effective treatment programme is 12,7 years (von Korff & Eaton, 1989). The benefits of early detection and management of mental illness are clearly documented as including health gain for the patient, better prognosis if detected early and still better prognosis if the problem is also managed appropriately (Lloyd & Jenkins, 1995). This position is especially true of panic disorder because, with the rapid entrenchment and reinforcement of dysfunctional cognitions and behaviours, the duration of the disorder is inversely related to the prognosis (von Korff et al., 1987).

5.1 Help-seeking as a social concomitant of panic disorder

The far reaching social and psychological effects of panic disorder are accepted as integral to the condition, not merely irregular side effects (Weissman et al., 1989). Panic disorder sufferers' help-seeking behaviour is, undoubtedly, one of these social and psychological concomitants which impacts on their condition and general life style, and can readily become a symptom maintaining environmental consequence when treatments are experienced as negative (Anton & Vitaliano, 1987). A large part of a panic patient's life, until he has his condition efficiently managed, revolves around searching for an answer or for treatment and help. Not only do panic disorder subjects visit more medical practitioners than other psychiatric patients (von Korff & Eaton, 1989), they often create a network of health practitioners around them (Gournay, 1995). This generally includes three or four health workers, comprising, for example, two or three general practitioners, a well known and friendly pharmacist and a hospital crisis centre. Many patients report living from consultation to consultation (Ingham, 1993). Panic disorder patients are always alert for the latest treatment on the market, including anything from vitamin preparations to the latest beta-blocker (Baker, 1989). This obsessive individual quest often has to be hidden from others, because panic disorder patients feel abnormal and ashamed (Ingham, 1993), exacerbating the time and energy it consumes from an organism already depleted through the process of his panic condition. Help seeking, in some form, is a part of every panic disorder and directly interactive with, and influential on, sufferers' behaviour and the severity of their condition (Waring & Foreman, 1988).

5.1.1 Extended pre-diagnostic help-seeking period

The extended latency period between the onset of panic symptoms and the procurement of appropriate treatment contributes significantly to both the sufferer's reduced quality of life and to the steadily deteriorating progress of the disorder. The following letter from a panic disorder patient after enduring twenty years of the disorder, as well as many stressful and unnecessary medical procedures, illustrates the frustration and futility of this ineffective treatment search:

"Although I had panic disorder for a long time. I only recently discovered what it was. I had my first attack twenty years ago when I was 21. I went to my family doctor who told me I was suffering from anxiety and prescribed Librium. I took the medication for about a year, then stopped because it wasn't doing me much good. I was still having the attacks.

My symptoms (dizziness, unsteadiness, skipped heartbeats, shortness of breath, tight chest) recurred off and on over the next seventeen years, although less frequently.

Then I developed new symptoms which I didn't realize were part of the same disorder and which worried me. These included numbness in my hands and feet.

A specialist internist did a complete physical with lab tests. He suspected arthritis, myasthenia gravis or multiple sclerosis, eventually ruling out the first two. The lab tests were inconclusive, so he referred me to a radiologist for x-rays, a neurologist for further testing, and a physical therapist for the numbness. The x-rays showed nothing abnormal. The neurologist performed another battery of tests. He concluded I had nonspecific idiopathic neuropathy, carpal tunnel syndrome

and cubital tunnel syndrome. He suggested I see a psychiatrist for the neuropathy because he felt it was an emotional problem.

At that point I felt that I'd seen enough doctors and would take care of the emotional problem myself. I didn't want to take the chance of being labelled a hypochondriac or worse.

Finally, a friend prodded me into seeing her family doctor. He asked me a lot of questions about my past medical history and my present symptoms, and did a complete physical. He then told me I had panic disorder, and had had it since I was twenty-one. I was surprised and relieved. At last it all made sense, (Leaman, 1992, p.156)."

The dramatic advances in the diagnosis and treatment of panic disorder have seemingly not relieved the fruitless and individually and nationally costly phenomenon of a long and ineffective treatment search. Both panic attack and panic disorder patients have elevated rates of general and specialized medical care utilization (Weinstein, 1995) yet they often remain undiagnosed for a long time, often do not receive effective treatment and very often receive little or no psychoeducation or information on the nature and consequences of their disorder (Regier et al., 1988). Hollifield et al.'s (1990) pioneer survey of the incidence of panic disorder and associated help seeking behaviour in Lesotho, Africa, discussed in chapter 3, reported that 77% of sufferers had in fact sought help for their condition. Yet, 72% of these, who had attended Western doctors, did still not know how to treat themselves and 68% did not know what caused their attacks.

The high incidence of patients with panic disorder who are not receiving any, or at least not appropriate, treatment is posing a significant problem for psychiatry. As the available treatment methods

become increasingly effective and economical, the difference between the potential for ameliorating the condition and the actual performance of health and mental health services in providing this care is likely to become of tantamount concern (von Korff et al., 1987).

5.1.2 Medical consultations as part of the negative behavioural chain

During this pre-diagnostic help-seeking period sufferers often undergo unnecessary, unpleasant and costly medical procedures. These are not only time and financially costly, unpleasant and anxiety provoking, but can also, unwittingly, become part of the negative vortex of catastrophic cognitions and avoidance behaviours central to the deterioration of panic disorder (Andrasik, 1990).

A person, experiencing the terror of a panic attack, often rushes to medical rooms, where he undergoes a thorough medical examination, after which he is proclaimed healthy, with no sign of pending heart failure or death. This diagnosis is technically correct, and offers some immediate relief, but the patient remains confused and afraid. He endured powerful, real and debilitating symptoms for which he has been offered no explanation or consolation. This diagnostic evaluation may paradoxically reinforce his cognitive appraisal of panic attacks as potentially harmful and may, thus, provide social sanction for his avoidance behaviours (von Korff & Eaton, 1989). Already caught in acute interoception and cognitive catastrophizing (Rapee, 1985) the person may now engage fears that he has not been told the truth, or that there is some very severe underlying condition. This increases the confusion that typically accompanies panic disorder, increases the patient's typical feelings of helplessness, all increasing his anxiety, thus

precipitating further panic attacks and the development of his condition (Zane, 1989).

The patient role can be maintained through positive reinforcement, such as attention from others, including empathetic medical practitioners, while "well" behaviour is insufficiently acknowledged (Andrasik, 1990). This is especially easy when the patient has a long standing, somewhat vague, disorder and is well known to the practitioner (Paykel & Priest, 1992) or can be due to fear, or uncertainty, on the part of practitioners, or significant others, in the patient's life who, out of kindness, instruct sufferers to do only what they can (Stiles, Shapiro, Harper & Morrison, 1995). The patient receives an ambiguous double-bind. He has been proclaimed physically fit but his pain is recognized and his illness behaviour accepted. The sufferer quickly assumes an illness orientation living from one diagnostic evaluation to the next (Gournay, 1995).

5.1.2.1 The practitioner-patient experience

Westernized patients have been socially schooled to respect a doctor or other medical practitioner's wisdom and tend to assume a docile role, immediately giving the practitioner the power during a consultation (Ingham, 1993).

This typical doctor-active, patient-passive interplay easily feeds the negative behaviour patterns seen in panic disorder. Feelings of helplessness and uncontrollability are positively related to the deterioration of panic disorder (Barlow & Cerny, 1985). The degree of fear experienced in panic is directly related to feelings of uncontrollability and to the perception of the severity of the disorder

(Cloitre et al., 1992). The typical doctor-patient consultation style renders the patient helplessly under the control of the practitioner. The experience of repeated ineffective treatments adds to a perception of the enormity of their panic condition (Katon, 1993) as well as their own helplessness. This interaction quickly becomes self-fueling as the patient feels more weak and vulnerable, and relies more and more on the practitioner.

The only way a patient can manage and eventually overcome the negative impact of panic disorder is by taking control of his condition, by taking full responsibility for his body, including his panic attacks, and to willfully decide on the help and guidance he will utilize (Weekes, 1983). The dependence developed in the doctor-active, patient-passive interactions and the contradictory acceptance of his illness symptoms simultaneous with a diagnosis of health, creates the exact antithesis of a sense of coping, clarity and competency.

5.2 *The direct monetary costs of pre-diagnostic help-seeking*

It is evident that panic disorder patients make far more frequent use of traditional health care facilities (Klerman et al, 1991) and other forms of healing therapies (Katerndahl & Realini, 1995) than patients with other psychiatric conditions or normal control groups. As well as potentially reinforcing negative behavioural patterns these treatments all carry a financial cost. Krupnick & Pincus (1992) investigated the cost-effectiveness of psychological treatments and concluded that the economic costs of panic disorder are in fact enormous, with subjects making at least twice as many health care visits as comparison subjects, and experiencing longer hospitalization.

Still, the direct costs of panic disorder can outstrip those of other chronic conditions. The crux is, however, not only this financial difference but that most of these medical procedures are unnecessary and make little impact on sufferers' condition, or worse still, can reinforce the negative process of their condition.

The financial outlay can be crippling for the individual and this effect can reciprocate socially. The social costs of panic disorder are twofold. They include, firstly, the loss of social and economic productivity in sufferers because of their panic condition (Rupp, 1995); and, secondly, the unnecessary channelling of medical insurance and, hence, government resources to the payment of ineffective medical procedures (Wolff & Riekstens, 1994). Regier et al. (1988) go as far as heralding the possibility of shifting even a small portion of these indirect costs into direct treatment costs, as having a potentially profound improvement on the lives of currently untreated or undertreated sufferers. The social costs of panic disorder on the broader social network is not included in the aim of this study but an alertness to it, while reading the alarming individual impact, is valuable and adds emphasis to these hard facts.

The post-diagnosis costs of panic disorder are also beyond the scope of this study and there is, generally, a paucity of research in this area. It is noted, however, that the positive effects of an efficient diagnosis clearly include the improvement of both the psychological and social concomitants of the disorder (Salvador-Carulla et al., 1995) amongst which ineffective and costly treatment searching is pertinent.

Enlightened positive investment in timely and effective diagnosis and treatment of panic disorder must become the active commitment of relevant health workers (Forrest & Ricketts, 1995). This would relieve the tragic human costs and also the substantial economic burden on society (Lloyd & Jenkins, 1995).

5.3 Characteristics of help-seeking behaviour

5.3.1 Where do panic disorder patients seek help?

It has been generally observed that most non-psychotic psychiatric conditions are treated in general practice (Paykel & Priest, 1992). It has, in fact, been estimated that as many as half of all persons affected by a mental disorder, who are under treatment, receive care only from a general health provider (von Korff, Shapiro, Burke et al., 1987). Panic disorder sufferers seem to follow this trend as they, especially initially, experience the problem as physical (Forrest & Ricketts, 1995).

Research studies have consistently confirmed panic disorder patients' regular and elevated usage of medical services. Klerman et al. (1991) compared the help seeking behaviour of panic attack, panic disorder and other psychiatric patients. They reported that 24% of the panic attack sufferers visited general practitioners, psychiatric professionals and emergency departments as opposed to 42,9% of the panic disorder patients and only 7,5% of other psychiatric disorder patients. These findings were again confirmed in an extensive review of studies on panic disorder patients' help-seeking behaviour by Katerndahl & Realini (1995). Their conclusions are summarized as follows:

- 49% used medical settings

- 32% used emergency rooms
- 35% used general practitioners
- 9% used cardiologists
- 19% used ambulance services
- 24% used psychiatrists
- 10% used psychologists
- 13% used alternative settings

It seems unanimous that most panic conditions are, at some stage, treated in general medical practice (Paykel & Priest, 1992) but there is, equally clearly, some inadequacy evident in the many misdiagnosed or undiagnosed cases. This results in the lengthy, individually and socially, costly, experience of pre-treatment help-seeking.

5.3.1.1 Influences on their choice of help sites

A lot of the research into panic disorder has focused on identifying why particular patients seek help from particular help sites. Illness behaviour is a coping skill influenced by social and cultural variables, personality factors and life experiences (Sue & Zane, 1987). People tend to appraise new bodily perceptions against their own prior experiences, and their anticipations, based on the observed experiences of others, and on general knowledge socially and culturally gleaned (Mechanic, 1972).

At some point a physiological cue alerts an illness perception. The **converting factor** in the case of panic disorder seems to be the sufferer's fear perception. Remember, the dreadful universal accompaniment to panic attacks is the overwhelming fear, typically, of

physical or mental collapse, death or social humiliation (Kaplan & Sadock, 1988).

Hibbert (1984) investigated the relationship between somatic symptoms, ideational content and resulting behaviour. He noticed that patients experiencing palpitations, breathlessness and weakness, feared heart attacks and death, and tended to consult medical health practitioners. Those experiencing sweating, butterflies in the tummy and depersonalization, feared loss of control and social embarrassment, and tended to consult mental health officers or counsellors. He concluded that the nature of somatic symptoms experienced is possibly influential on the sufferer's fear and in turn on the choice of help seeking behaviour.

Katerndahl & Realini (1995) scrutinized correlations between somatic symptoms, personality factors and sociodemographic variables with help-seeking behaviour in panic disorder patients. They identified the following trends:

- alcohol dependent males, unable to drive themselves, visited emergency rooms;
- persons with severe chest pain and dyspnea and functionally impaired persons consulted general practitioners;
- patients who believed their condition was self-caused related inversely to the use of general practitioners;
- higher social class correlated to cardiologist usage;
- higher concern about pain correlated to cardiologist usage;
- perceived severity of panic attack correlated to ambulance usage;
- patients with greater treatment experience used psychiatrist more;

- males who attributed the cause of their condition to others used psychologists most.

Factors associated with seeking care at specific sites appear to include attitudes, perceptions and treatment experiences, in addition to symptom characteristics, sex and socioeconomic status. Panic disorder sufferers' pre-diagnosis treatment search is, therefore, a dynamic process as each attempt reciprocally influences most of these variables and in turn directs the next treatment sought. This study aims to explore the directive influence of sufferers' fear on their pre-diagnostic help-seeking behaviour.

5.3.2 *How do panic disorder patients present their symptoms ?*

Specific symptoms reported seem to be similar for benign panic attacks and for attacks associated with panic disorder. Panic disorder patients typically present with multiple somatic complaints often including a fear of dying, going mad or losing control (Milsaver, 1989). These somatic complaints include chronic headaches, myalgias, lack of energy, poor concentration, irritability, difficulty breathing, dizziness and chest pain (von Korff & Eaton, 1989).

This conglomeration of vague physical symptoms is often difficult to understand and can leave a practitioner irritable, perplexed, anxious and helpless. It is difficult to find a clear-cut explanation but he can, equally, not be sure that the patient does not suffer from some physical disorder that he has failed to diagnose (Mechanic, 1972). It has been suggested that the practitioner's emotional responses, when tempered

with sound medical judgement, can be a useful diagnostic aid (Dilsaver, 1989).

5.3.2.1 Influences on their symptom presentation

Individuals differ worldwide in their experience of pain, their labelling of a symptom, their communication about their pain or symptom, their belief about the cause of their illness, their attitude to doctors or medical practitioners and their expectations of treatments (McGolderick, 1982). These individual differences would logically effect how they both perceive and communicate their perception of their symptoms (von Korff & Eaton, 1989). The symptom profile of panic attacks might be interpreted by the patient as the manifestation of psychological distress or physical illness. Their personal interpretation is functionally related to their fear perceptions (Beck et al., 1992) and how they communicate this is influenced by social and cultural scripts, as well as individual personality factors (McGolderick, 1982).

Ordinarily, patients explain physical symptoms in terms of conventional illness frameworks, but when they experience somatic symptoms unexpectedly, and concomitantly with emotional arousal, they do not easily fit into these parameters. Furthermore, panic disorder sufferers feel different and perplexed and will often present their symptoms in ways to alleviate these feelings, trying to make them appear as "normal" as possible (Ingham, 1993) often forcing them into conventional sickness conceptual frameworks, even emphasizing lesser symptoms to accommodate this fit (Perry & Cooper, 1989).

with sound medical judgement, can be a useful diagnostic aid (Dilsaver, 1989).

5.3.2.1 Influences on their symptom presentation

Individuals differ worldwide in their experience of pain, their labelling of a symptom, their communication about their pain or symptom, their belief about the cause of their illness, their attitude to doctors or medical practitioners and their expectations of treatments (McGolderick, 1982). These individual differences would logically effect how they both perceive and communicate their perception of their symptoms (von Korff & Eaton, 1989). The symptom profile of panic attacks might be interpreted by the patient as the manifestation of psychological distress or physical illness. Their personal interpretation is functionally related to their fear perceptions (Beck et al., 1992) and how they communicate this is influenced by social and cultural scripts, as well as individual personality factors (McGolderick, 1982).

Ordinarily, patients explain physical symptoms in terms of conventional illness frameworks, but when they experience somatic symptoms unexpectedly, and concomitantly with emotional arousal, they do not easily fit into these parameters. Furthermore, panic disorder sufferers feel different and perplexed and will often present their symptoms in ways to alleviate these feelings, trying to make them appear as "normal" as possible (Ingham, 1993) often forcing them into conventional sickness conceptual frameworks, even emphasizing lesser symptoms to accommodate this fit (Perry & Cooper, 1989).

Social learning, if not prescriptive, is certainly significantly influential on the vocabulary patients use to present symptoms and their willingness to use different medical assistance and divulge different symptoms. In social circumstances where psychological vulnerability is not recognized, patients often somatize emotional disturbances and the "patient role" becomes their coping mechanism (Sue & Zane, 1987). Somatic symptoms are also more easily explained via traditional symptom terminology than are the intangible emotional symptoms of panic, such as an overwhelming and seemingly irrational sense of imminent doom.

The dynamic nature of treatment searching in panic disorder must again be recognized. Each treatment experience becomes part of the sufferers' social circumstances and, thus, directly influential on ensuing symptom presentation.

5.4 Diagnostic difficulties

The immediate diagnosis of panic disorder is difficult due to the irregular and confusing nature of the disorder, complicated by the array of somatic symptoms typically presented to the practitioner and the frequent comorbidity with other emotional disturbances, most often major depression and substance abuse (Paykel & Priest, 1992). An inadequate diagnosis or treatment experience is a function of the patient, the practitioner and their interaction (Sue & Zane, 1987). Patients often present their symptoms in ambiguous and confusing ways, practitioners can be too rigidly attached to theoretical approaches or inclined to avoid certain, especially emotional, diagnoses because of feelings of inadequacy or lack of expertise. The communication

established in the consultation is often dictated by socialized habits and only inadequately meets individual needs (Ingham, 1983).

Panic attack symptoms can equally represent an organic or a primary psychiatric condition (Dilsaver, 1989). Sadly, although a comprehensive physical diagnostic evaluation is carried out this all too often, and despite the wealth of research and knowledge, does not include the evaluation of a possible psychiatric diagnosis (von Korff & Eaton, 1989). Even when stress is identified as a cause, intervention is often limited to brief counselling, or non specific, anti-anxiety medications, rather than clear explanations and the introduction of appropriate biological and/or psychological treatments.

The picture is not all gloom. It seems that, notwithstanding the unspecific presentation of symptoms, primary care practitioners are able to identify patients with psychiatric problems relatively accurately (72%). The diagnostic problem seemingly lies not in the identification but in the differentiation of a specific psychiatric disorder (Robins et al., 1981). This diagnostic specificity is absolutely necessary as a precursor to the patient's understanding of his condition and to appropriate and effective treatment.

There is, clearly, an urgent need to establish precise clinical methods of case identification and to understand how to make best use of available methods of assessing patients.

5.4.1 Some guidelines to effective consultations

The essence of an effective consultation is the fit of the treatment to the individual's expectations, experiences, life-style and culture (Sue & Zane, 1987). Primary health practitioners are faced with an enormous number and diversity of cases daily and cannot be expected to be experts in all disciplines. It is, however, important to realize sensitively that a patient's experience of his symptoms is idiosyncratic. This experience rests as much within the patient's cognitive interpretive framework as it does within the stimulus event (Andrasik, 1990). This was clearly demonstrated in an investigation of patient and practitioner treatment expectations (Packard, 1983). Of chief concern to the patient was an explanation of what was causing the problem, while physicians rated such an explanation much lower in importance, with pain relief being their top need. This study clearly emphasizes the necessity for open discussion with the patient, to understand both his needs and to empower him to help himself, rather than merely offering him a prescription, which ultimately has more control over his condition than he has, obviously exacerbating his sense of helplessness and uncontrollability (McGolderick, 1982). Panic disorder patients must be allowed and free to discuss their somatic symptoms, without feeling stigmatized (Katon, 1993).

Paykel & Priest (1992) offer the following guidelines for establishing and communicating trusting, empathetic and effective consultation dynamics:

- good eye contact;
- listen to patient with few interruptions;
- appear not to be in a hurry;
- ask direct questions with a psychological and social content;

■ ask questions from patients' statements not only from theory (Paykel & Priest, 1992).

Once a trusting and caring rapport has been established, it is important that the practitioner sensitively probe the specific patient's panic experiences, treatment expectations and psychological needs (Stiles et al., 1995). The patient must experience the practitioner as caring but also as knowledgeable, communicated through the nature and direction of his questions (Paykel & Priest, 1992). It can be useful to enquire under what conditions concern about illness, in contrast to alternative definitions of a symptom, became manifest. The appraisal of the internal cues of a panic attack as dangerous and illness related is largely reactive on the patient's fear (Schmidt et al., 1994) and understanding and normalizing this fear correlates positively with the beginning of improvement (McIayden, 1992).

5.4.2 Psychoeducation

As already discussed, the diagnosis of physical health to a patient experiencing unfathomable panic attacks, is more likely to influence his condition negatively than to offer him relief. Likewise, simply naming his symptoms as constituting a panic disorder can breed severe uncertainty and add to the patient's fear and anxiety. Credible instructions, provided in a sympathetic and supportive way, would reduce attributional errors and not offer patients **new reasons for anxiety**. These might be more helpful to the patient than blanket reassurances that provide no alternative framework for understanding his symptoms (Mumford, Schlesinger, Glass, Patrick & Cuedon, 1984).

Whether doctors offer any explanations or not, the patient will anticipate and acquire expectations of the course of his condition, how he expects to feel and what is likely to happen. To the extent that the patient is not informed, his expectations may be highly contrary to what is likely to occur and this discrepancy may alarm him and disrupt the management of his condition (Mechanic, 1972). Furthermore, a panicking person, in the absence of knowledge, can create a host of unmanageable, although unreal, possibilities to which he then reacts with alarm (Zane, 1989). A lack of understanding is one of the most common reasons for the negative process of a panic condition, while sharper knowledge improves realistic judgment and allows symptoms to be reconceptualized within the context of this new knowledge (Rachman, Levitt & Lopatka, 1987).

Education about the patient's condition is vital, but the adequacy of a practitioner's management of a patient depends, not only on the provision of expectations and instructions, but also on the relevance of this information to the patient (McGolderick et al., 1982).

A physician can generally relieve a patient's symptoms to the extent that he can provide interpretations that are credible and which can bolster the patient's esteem and sense of mastery (Paykel & Priest, 1992). These explanations must relieve anxiety and be culturally and psychologically acceptable to the patient (Sue & Zane, 1987). To offer explanations meeting these criteria, the practitioner must be aware of the patient's sickness framework and, therefore, of what kind of explanations would be appropriate. For example, if a patient is socially schooled to minimize and criticize psychological complaints, a purely psychological explanation of his condition may exacerbate his anxiety and his condition, as well as disrupting relations between the

practitioner and patient (Mechanic, 1972). Conversely, an explanation of panic disorder as a psychophysiological condition involving the reciprocal interaction of both psychological and physiological variables could relieve the stigma and fear of a purely mental condition (Baker, 1992). Explanations that do not take into account the **patient's assessment** of the threat that he faces might serve only to mystify him and to undermine his confidence in his physician and his prognosis (Andrasik, 1990).

The practitioner must be able to educate the patient further in the nature and treatment of the disorder and must take the time to do so. He should discuss treatment options clearly (Durham 1992). Discussions should include both the role of pharmacologic agents **and** behavioural treatments **and** the role of the patient's self management (Walker & Ashcroft, 1989).

Public education is a meaningful aspect of psychoeducation. It aims at addressing sufferers, medical professionals and the general public to reduce the stigma and increase the understanding of panic disorder. This would encourage patients to acknowledge their symptoms, both physiological and psychological, to the doctor and to significant others in their lives (Paykel & Priest, 1992).

5.5 In sum

Help-seeking behaviour constitutes a significant part of panic disorder patients' lives, especially until they embark on a programme of effectively managing their condition. Ineffective or negative treatment experiences during this period can have a negative influence on its progression while simultaneously imposing a severe economic burden.

It is imperative that practitioners recognize the existence of a panic condition and explain both the nature and process of panic disorder to the patient, as well as outlining available treatment programmes. It is, finally, critical that this explanation is sensitively couched in terms of the patient's idiosyncratic illness framework.

CHAPTER 6

METHOD

6.1 Aims of the present study

From the preceding chapters it is clear that panic disorder is an insidious and debilitating condition that rapidly assumes control over a sufferer's life. The symptoms of panic disorder have been adequately categorized and organized into diagnostic instruments. Prevalence research is difficult because of the irregular and episodic course of this condition but existing data emphasizes the urgent need to further understand and recognize panic disorder. Extensive research has been carried out and has clearly shown the complex and idiosyncratic nature and course of the condition but has also identified recurring trends. An extended and ineffective pre-diagnostic help-seeking period with an adverse financial, social and psychological impact on a sufferer's life is an almost universal phenomenon within this syndrome. This has been enthusiastically researched from various psychological paradigms but probably most convincingly from a cognitive behavioural perspective. This model is the most relevant to this study as they both focus on the link between cognitive processes and individual reactions to external and internal stressors. The specific cognitive process of interest to the present study is the experience of fear.

Fear is the most consistent symptom accompanying panic disorder. It is, to date, an under recognized component of the disorder urgently requiring attention. The primary aim of this study is to investigate the complex impact of this overriding symptom on the prognosis of the condition. Research has repeatedly reported that panic disorder sufferers' fears fall into three clusters: fear of death, fear of going mad, and fear of social embarrassment. The present study aims to investigate the influence of these fear categories on subjects' illness behaviour and the process of their disorder. These recognized fear categories will form the research groups: group A will comprise subjects fearing death, group B subjects afraid of going mad and group C subjects afraid of social embarrassment.

6.2 Hypotheses

Against the above background the research hypotheses of this study are:

H1: Group A subjects will reflect the shortest pre-diagnostic help-seeking period followed by group B. Group C subjects will reflect the longest pre-diagnostic help-seeking period.

H2: Medical costs during the pre-diagnostic help-seeking period will be highest for group A subjects, followed in descending order by group B and group C. The medical costs of all research subjects will be higher than those of the control groups.

H3: Group A subjects will use more traditional medical practitioners; group B subjects will use more mental health practitioners; group C subjects will use more alternative practitioners.

H4: Group A subjects will experience more physiological symptoms; group B subjects more psychological symptoms; group C subjects, symptoms suggesting loss of physical and/or mental control.

H5: Group A subjects will present their physiological symptoms to traditional practitioners; group B subjects will present their psychological symptoms to mental health practitioners; group C subjects will present their threateningly embarrassing symptoms to alternative practitioners.

H6: Group A subjects will present their symptoms clearly and directly to practitioners; group B subjects will selectively present their symptoms to chosen practitioners; group C subjects will show selectivity in both symptom presentation and practitioner choice.

H7: There will be no difference in the number of practitioners consulted by each group despite the differences expected in the duration of the pre-diagnostic help-seeking periods

H8: There will be no difference in the experience of the beginning of healing between the groups. This will coincide with the first normalization of subjects' fears.

H9: There will be no difference between the groups in the type of practitioner from whom they receive an effective diagnosis. This will most frequently be a traditional medical practitioner.

6.3 Method

6.3.1 Study design

A multimethod research design was utilized to investigate the complex pre-diagnostic help-seeking behaviour of panic disorder sufferers. This study is embedded in an ecumenical conceptual framework, recognizing both the subjectivity of panic disorder as well as the common trends. In keeping with this, the method chosen must include enough formalization to keep the research relevant to the problem under investigation, spiced with enough flexibility to prevent premature closure and the loss of valuable phenomenological data. Pre-designed techniques provided the structure and quantitative information, after which open-ended techniques were used to explore the individual experiential component of help-seeking behaviour.

This multimethod design epitomizes the dialectic between deductive and inductive research (figure 2). The theory-driven deductive data both relates to the research hypotheses and simultaneously informs new ideas. These create the intuitions that the open-ended techniques of qualitative data then creatively explore. These results reflect back, further validating and/or enriching results obtained.

The methodology of this study also meets the criteria for triangulation which is characterized by the utilization of more than one research method, so that the shortcomings of one are compensated for by the strengths of the other (Rosnow & Rosenthal, 1996). Specifically, the quantitative approach provides empirical, objectively measurable data while the qualitative approach ensures the inclusion of valuable subjective and phenomenological data (Miles & Huber, 1984).

6.3 Method

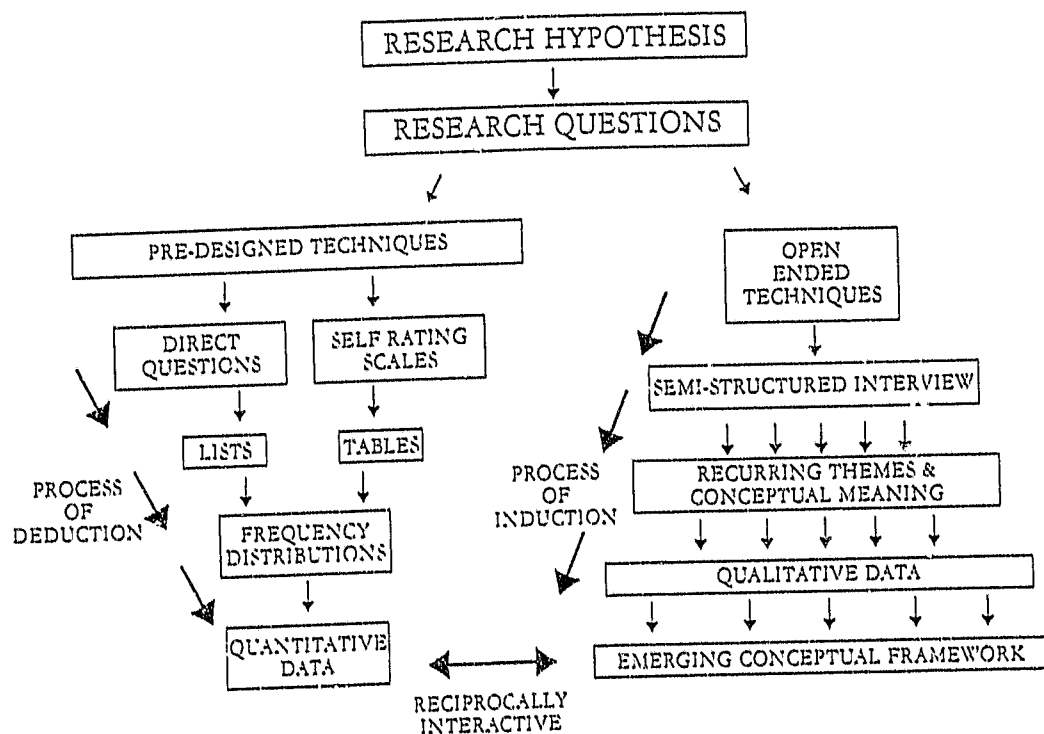
6.3.1 Study design

A multimethod research design was utilized to investigate the complex pre-diagnostic help-seeking behaviour of panic disorder sufferers. This study is embedded in an ecumenical conceptual framework, recognizing both the subjectivity of panic disorder as well as the common trends. In keeping with this, the method chosen must include enough formalization to keep the research relevant to the problem under investigation, spiced with enough flexibility to prevent premature closure and the loss of valuable phenomenological data. Pre-designed techniques provided the structure and quantitative information, after which open-ended techniques were used to explore the individual experiential component of help-seeking behaviour.

This multimethod design epitomizes the dialectic between deductive and inductive research (figure 2). The theory-driven deductive data both relates to the research hypotheses and simultaneously informs new ideas. These create the intuitions that the open-ended techniques of qualitative data then creatively explore. These results reflect back, further validating and/or enriching results obtained.

The methodology of this study also meets the criteria for triangulation which is characterized by the utilization of more than one research method, so that the shortcomings of one are compensated for by the strengths of the other (Rosnow & Rosenthal, 1996). Specifically, the quantitative approach provides empirical, objectively measurable data while the qualitative approach ensures the inclusion of valuable subjective and phenomenological data (Miles & Huber, 1984).

Fig.2 - Schematic representation of research method



6.3.1.1 A word on retrospective and subjective research

Retrospective and subjective research is often criticized for its openness to memory distortions, post hoc rationalizations or the impositions of present viewpoints on earlier events. Panic attacks are emotional, ego-charged, personality-forming experiences which individuals are unlikely to forget (Allport, 1951). Further, anxiety, and specifically panic, are subjective experiences and it is necessary to re-search and re-examine these subjective processes, interpretations and behavioural manifestations to truly understand the phenomena (Atkinson & Heath, 1987). Subjective or personal accounts can open the door to new phenomena, expose the degree of human suffering involved, provide

more detail and offer a sense of the process or continuity of a condition (Baker, 1992). The manner in which a subject structures and recalls his life is valuable information in itself. Clark's (1988) review of cognitive assessment indicates that no single approach, in vivo versus delayed, is consistently superior to another, and that there is constant discordance between methods. The greatest benefit is derived from the reciprocal usage of prospective, objective, retrospective and subjective dimensions recognizing both the discrete and combined contribution of each.

6.3.2 Subjects

Volunteer subjects were selected from responses to an explanatory request form (appendix 3) which was distributed at a panic disorder support group meeting. The National Panic Disorder Support Group was discussed in the introduction to this study. The marketing of this group has ardently attempted to reach every population group through appropriate media, and a census of membership demographics suggests that this has been largely successful. The group from which this study drew its volunteers was, however, a splinter group representing the larger Gauteng area. This restricts the generalizability of results.

6.3.3 Procedure and instruments

Volunteers' response forms were collected by the researcher who then contacted the respondents to arrange an appointment for the testing and interview procedures. This took place at subjects' homes except for one subject who was interviewed at the Medical School of the University of the Witwatersrand and one who preferred to travel to the researcher's home.

6.3.3.1 Screening

Respondents completed a panic disorder screening questionnaire used in community clinics, a fear identification questionnaire and a basic demographic details form (appendix 4). Suitability required, primarily, that the subjects had already been diagnosed as suffering from panic disorder and that they had no co-morbid psychiatric or chronic physiological diagnosis.

6.3.3.2 Informed consent

Screened subjects who were suitable for this study were asked to read and complete a consent form confirming their informed voluntary participation (appendix 5).

6.3.3.3 Open-ended technique

A recorded semi-structured interview was conducted by the researcher with each subject. The structure of the interview was formed by eight open-ended questions (table 2) aimed at maintaining the researcher's conceptual orientation and ensuring that all subjects were asked the same questions. The order in which the questions were asked varied

Table 2 Open-ended questions

- what was the first/next attempt you made to get help for your panic condition?
- why did you chose this particular line of treatment?
- what did you expect from this treatment?
- to what extent did this treatment meet your expectations?
- what impact did this treatment have on your panic disorder?
- what impact did this treatment have on your quality of life?
- did your panic disorder affect your occupational and financial functioning?
- why did you stop this line of treatment?

allowing for spontaneous discussion and preventing the unnecessary loss of valuable information through restricting subjects' narratives.

These 8 questions simply opened the door through which the researcher followed the subject's lead. The researcher's role then became twofold: having both to travel the path of the subject's experience, while sensitively leading back to a research orientation when appropriate. It is essential that, within a conceptual orientation, the researcher maintains a commitment to completion allowing the subject to fully expand on and describe associated memories.

After discussing each particular type of treatment the subject was asked to complete a questionnaire and 2 self-rating scales with reference to that treatment. These are discussed below. The entire testing procedure took between ninety and one hundred and twenty minutes.

6.3.3.4 Pre-designed techniques

The pre-designed techniques utilized were 8 direct questions forming a short questionnaire (table 3) and 2 self rating scales (tables 4 & 5).

6.3.3.4.1 Direct questions

The first question asked subjects to name the type of treatment under discussion. The subsequent questions each directly asked for information necessary to investigate the hypotheses of this study (table 3).

allowing for spontaneous discussion and preventing the unnecessary loss of valuable information through restricting subjects' narratives.

These 8 questions simply opened the door through which the researcher followed the subject's lead. The researcher's role then became twofold: leaving both to travel the path of the subject's experience, while sensitively leading back to a research orientation when appropriate. It is essential that, within a conceptual orientation, the researcher maintains a commitment to completion allowing the subject to fully expand on and describe associated memories.

After discussing each particular type of treatment the subject was asked to complete a questionnaire and 2 self-rating scales with reference to that treatment. These are discussed below. The entire testing procedure took between ninety and one hundred and twenty minutes.

6.3.3.4 Pre-designed techniques

The pre-designed techniques utilized were 8 direct questions forming a short questionnaire (table 3) and 2 self rating scales (tables 4 & 5).

6.3.3.4.1 Direct questions

The first question asked subjects to name the type of treatment under discussion. The subsequent questions each directly asked for information necessary to investigate the hypotheses of this study (table 3).

Table 3 Direct questions investigating each treatment subjects underwent

1. What was the first/next attempt you made to get help for your panic condition?
2. When was this?
3. How did you present your symptoms to this practitioner?
4. What treatment did you receive from this practitioner?
5. How many times did you consult this practitioner?
6. Were you being treated by other practitioner(s) at the same time?
7. Which practitioner diagnosed your panic condition?
8. What treatment did he prescribe?

6.3.3.4.2 Self-rating scales

Subjects were also asked to rate their subjective feeling of being understood by each practitioner, their confidence in the practitioner's proposed treatment and their satisfaction in the outcome of this treatment on Likert scales ranging from 1 - 5 (table 4).

Table 4 Likert self rating scales measuring subjects' treatment experiences

Please rate your experience of this consultation and treatment on the following scales:

I felt understood				
5	4	3	2	1
(extremely)				(not at all)
I felt confident in the proposed treatment				
5	4	3	2	1
I was satisfied by the results of this treatment				
5	4	3	2	1

Each subject was also asked to rate the severity of his condition at the time of consulting each practitioner using the shortened version of the SCID diagnostic assessment instrument of panic disorder for DSM-IV (Paykel & Priest, 1992). These ratings epitomize a biopsychosocial perspective. The biological component of his condition was estimated by rating the frequency of his panic attacks on a scale from 1 - 7; the psychological component by rating the severity of his associated anxiety on a scale from 0 - 5; and the social component by his condition's impact on his quality of life on a scale from 0 - 8 (table 5). Where appropriate, improvements indicated on these scales also substantiated narrative descriptions of the experience of the beginning of healing.

Table 5 Likert self rating scales measuring the severity of subjects' panic disorder

1. How frequent were your panic attacks at this stage?

More than once a day	(7)
everyday	(6)
more than once every week	(5)
every week	(4)
more than once a month	(3)
monthly	(2)
less frequently	(1)

2. How much time did you spend worrying about your panic attacks?

Almost all the time	(5)
significant majority of time	(4)
about half the time	(3)
significant minority of the time	(2)
rarely	(1)
none at all	(0)

3. Did your panic attacks cause any of the following problems with your work or other regular daily activities?

	(2)	(0)
cut down on the amount of time you spent on them	Yes	No
accomplished less than you would like to	Yes	No
were limited in the kind of activities you did	Yes	No
had difficulty performing your usual activities	Yes	No

Subjects completed these three pre-designed techniques for each treatment they had procured since first actively seeking help for their panic condition until, and including, their correct diagnosis as a panic disorder sufferer, in other words, each treatment used during their pre-diagnostic help-seeking period.

6.3.3.5 Justification of instruments used

The direct questions and one self-rating scale were constructed specifically for the present study and every effort was made to ensure their content validity. Content validity cannot be expressed in terms of a quantitative index, it is instead evaluated on logical grounds and informed by theory (Huysamen, 1996). This is best achieved by clearly defining the universe of interest, systematically sub-dividing it and ensuring that items adequately represent each one of these sub-divisions (Bless & Kathivira, 1993). The universe of interest to this study is the pre-diagnostic help-seeking behaviour of panic disorder sufferers which was sub-divided in terms of the hypotheses of this study. Distinct items were created to investigate each one of these sub-divisions or hypotheses.

The self-rating scale measured subjects' experiences of each treatment used in terms of three variables: how well they thought the practitioner understood their condition, how confident they were in the proposed treatment, and how satisfied they were with the results of the treatment. The choice of these variables was based on repeatedly emerging themes during the scrutiny of case histories (Baker, 1989; Thamm, 1995) and research studies (McGolderick, Pierce & Giordano, 1982; Markowitz et al, 1989; Schmidt, Jacquin & Telch, 1994).

The direct questions and self-rating scale were, therefore, considered to have adequate content validity and to offer meaningful measures of subjects' help-seeking behaviour and treatment experiences.

6.3.4 Independent and dependent variables

Fear cognitions created the three levels of the independent variable in this study on the basis of which subjects were divided into research groups consistent with DSM IV classificatory requirements:

- Group A - fear of dying
- Group B - fear of going mad
- Group C - fear of social embarrassment

These levels of the independent variable could not be experimentally manipulated creating an ex post facto research design which limited obtained results to the description of observed correlations and differences.

The dependent variables to which the 3 levels of fear cognitions were related are:

- the duration of pre-diagnostic help-seeking behaviour
- the cost of pre-diagnostic help-seeking
- the specific type of practitioners consulted
- the type of symptoms experienced
- the presentation of symptoms to practitioners
- the manner of symptom presentation
- the number of pre-diagnostic practitioners or treatments utilized
- the subjective experience of the beginning of healing

- the procurement of an effective diagnosis

6.3.4.1 Operationalization of dependent variables

The duration of pre-diagnostic help-seeking behaviour was calculated from subjects' retrospective recall of their very first attempt to procure some formal assistance for their panic attacks until the time that they received an accurate and effective diagnosis of their condition. Formal assistance was defined as the consultation of a health or helping practitioner primarily for the alleviation of the subject's panic symptoms. The time lapse between the first consultation recalled and receiving an effective diagnosis was calculated in calendar years and months. This provided the raw data representing the duration of pre-diagnostic help-seeking behaviour.

The specific practitioners sought were listed according to subjects' recall and categorized into 3 groups:

- **traditional medical practitioners** which included psychiatrists, general practitioners, medical specialists, physiotherapists, and dieticians.
- **mental health practitioners** which included psychologists, counselors, hypnotherapists and re-birthers.
- **alternative practitioners** which included homeopaths, aromatherapists, chiropractors, acupuncture, yoga, reflexologists and run-for-life.

The number and types of practitioners consulted were tabulated in terms of each treatment procedure, not each consultation. For example, a twelve month psychotherapy session was tabulated as one

utilization of one psychologist. In the analysis of medical expenses, however, each consultation was costed.

The cost of pre-diagnostic help seeking behaviour was calculated in South African rands and cents according to 1996 South African Medical Association's recommended fees. Each consultation and treatment, or medical procedure such as X-Rays, scans or electrograms, a subject underwent was costed. The overall total was calculated and then separated into the costs of practitioner consultations and of medical procedures. The cost of over-the-counter medication was calculated according to 1996 recommended retail prices obtained from the South African Drug Information Services. The use of 1996 standardized rates, regardless of the actual year of subjects' treatments, ensures uniformity and realistic inter subject comparison.

Panic disorder subjects' medical expenses were then compared with those of 3 groups of twelve control subjects, matched on age, sex, marital status and socioeconomic status. These control groups represented the general population of subjects with no chronic condition (NC) and with two chronic physiological conditions, namely asthma (AST) and hypertension (HYP). The twelve subjects were randomly chosen, using a table of random numbers, from medical scheme administrators' client profile records.

Control subjects' medical expenses were obtained from medical scheme administrators, for the twelve month period January 1996 to December 1996. As these expenses did not include money spent on over-the-counter medicines, these amounts were excluded from panic disorder subjects' expenses, to ensure realistic comparisons. The mean annual medical expenses for the research groups were calculated on a

pro-rata basis from their total medical expenses relative to the length of their pre-diagnostic treatment search.

Part of the social costs of panic disorder, specifically the individual loss of occupational and financial productivity, was qualitatively discussed where it formed part of the subjects' experiences during their pre-diagnostic help-seeking and, therefore, of the narrative data of this study.

The **types** of symptoms subjects reported were recorded and separated into those consistent with DSM IV diagnostic requirements and those outside of this group. The **differential presentation** of symptoms to particular practitioners was also recorded and compared.

The **subjective experience** of treatments received was categorized into treatment expectations, experience and satisfaction. Subjects rated these dimensions on 5 point Likert scales. A rating of 5 was the most favourable rating across all measures. A biopsychosocial rating of each treatment experience was also obtained from each subject. These ratings were correlated to different practitioners consulted and descriptively arranged relative to the experimental groups of this study.

The subjective experience of the **beginning of healing** was narratively accessed and qualitatively recorded. This experience was substantiated by any concurrent improvements noted on subjects' biopsychosocial rating of their panic condition.

An **effective diagnosis** required not only that the subject's condition was named "panic disorder" but also that the subject was directed onto an appropriate treatment plan allowing him to, thereafter, curtail his

relentless help-seeking. The type of practitioner providing an effective diagnosis was tabulated relative to each research group.

6.4 Analysis of data

6.4.1 Quantitative data

The responses to both the direct questions and self-rating scales provided the quantitative data of this study. These were ordered and presented in frequency distributions and graphs. Trends and between group differences were noted and discussed.

6.4.2 Qualitative data

The qualitative analysis procedure used in this study was **trend analysis** (Strauss & Corbin, 1990). Tape recorded interviews were largely transcribed. The analytical process then began with identifying the gist of the responses and noting patterns and recurring trends. These themes were then coded and recorded on a simple checklist matrix for individual subjects (figure 3). Themes were then combined onto a conceptually clustered matrix allowing inter-subject comparisons and analyses (figure 4). This process involves shifting from facts to their conceptual meanings, or of moving up to higher levels of abstraction. The experience of each treatment, as described by the subject, created the first level of abstraction. His emotional reaction to these consultations constituted the next level, illuminating the subjective effect of this treatment. His cognitive interpretations, guided by the treatment experience and his emotional reactions, and the behavioural manifestations of these interpretations,

Figure 3 Example of a simple checklist matrix

Subject No: 007

Severity of Disorder			Type of Prac.	Treatment	Symptom Presentation	Consultation Dynamics	Treat. exp.		
Sev.	Anx.	Q.O.L.					Underst.	Confd.	Satis.
5	5	6	G.P.	ECG. Full blood profile. Tranquillizers (situationally).	Still in panic. Burst into tears. Said she was shaking, having palpitations & feeling terrible.	Expected answer. E relaxed her. Said it wasn't a heart attack. He didn't know what it was except that her B.P. was raised. Guessed it was anxiety. S thought - "now what?"	4	3	1
5	5	8	G.P.	Just talked.	Attacks recurring often & controlling her life.	E said nothing physiological. She must go to a psychologist. S found this very hard.	4	1	1
7	5	6	Psychologist	Therapy.	Sure she was dying but doctor would not admit it.	E said that as most attacks happened at night the problem was her home life. As she was newly married, it must be her marriage. Perhaps she should consider divorce. S was furious.	1	1	1
7	5	8	Emer. Rms.	Valium Injection.	Arrived sweating, shaking, crying, wrapped in a blanket & stuttering.	S wanted to be saved from dying. Prac. did not say much but were efficient & took control. They contained S's anxiety she relaxed & felt momentarily safe.	4	1	1

made up the third level of abstraction. This highest level constituted the conceptual meaning and effect of treatments received and created the conclusions presented in this study. To clarify this process it will be graphically presented in the form of dendograms for some of the recurring trends analysed (fig. 7, section 9.1). Through the procedure of trend analysis the rich narrative data collected from subjects' interviews was organized into manageable bites allowing comparison and interpretation.

This analytical process mirrors both the sequenced stages of illness model (McFayden, 1989), discussed in chapter 3, and the positive loop

Figure 4 - Example of a conceptually clustered matrix

Treatment No: 1

Subj. No.	Severity of Disorder			Type of Prac.	Treatment	Symptom Presentation	Consultation Dynamics	Treat. exp.		
	Sev.	Anx.	Q.O.L.					Underst.	Confil.	Statis.
007	5	5	6	G.P.	ECG. Full blood profile. Tranquilizers situationally.	Still in panic. Burst into tears. Said she was shaking, having palpitations & feeling terrible.	Expected answer. E relaxed her. Said it wasn't a heart attack. He didn't know what it was except that her B.P. was raised. Guessed it was anxiety. S thought "now what?"	4	3	1
002	7	5	5	Psychiatrist	Anaftranil	Acute & unexpected 'intense arousal periods' making me dysfunctional.	S had complete faith in this clever man. E was distant. Intellectualized her problem, explained brain anatomy & told her to take her pills. S felt confused & scared.	4	4	1
012	7	5	6	Em. Res. neur.	Admitted to ICU - ECG. Valium drip. EEG blood tests. nuclear X-ray. sleeping pills.	Uncontrollable shaking Terrible pain in arm & chest. Petrified.	Hoped they could save me. Guess they did but they were so cold. Attached tubes, prodded & poked at me but NEVER said a word except that I would have to be admitted.	1	3	1

of Margraf & Ehler's (1989) cognitive behavioural model of panic disorder, discussed in chapter 4. The process moves from the actual physical experience, or the raw data, via the subjects' cognitive and emotional interpretations and reactions, to their behavioural manifestations and the impact on their complete lifestyle.

In keeping with the recommendations of qualitative research the methodology of this study has been explained at length exposing the process of data assimilation and interpretation, rather than merely the

conclusions. This allows the reader to truly understand the study and to, therefore, personally evaluate conclusions drawn, as well as to draw his own conclusions (Atkinson & Heath, 1987).

6.5 Conclusions

The methodology of this study comprised a dual quantitative and qualitative approach. Quantitative data obtained from self-rating scales and direct question responses investigated the process, cost and biopsychosocial impact of subjects' help-seeking behaviour. Qualitative data obtained during a semi-structured interview substantiated the pre-designed techniques and added rich subjective information on treatment dynamics. This approach was chosen to create as complete an understanding as possible of the role of **fear** on panic disorder sufferers' help-seeking behaviour. Being an ex-post facto design limits the inferential capacity of this study but it does provide a rich descriptive and correlational indication of the link between **fear cognitions** and the process of panic disorder.

CHAPTER 7

QUANTITATIVE RESULTS

All the subjects in this study readily remembered the many years of unsatisfactory treatment searching comprising the frequent, and often unnecessary, unpleasant and costly, medical procedures before they were diagnosed as suffering from panic disorder.

7.1 Subjects

Thirty-three voluntary subjects, selected from those who responded to the request form distributed at a panic disorder support group meeting, were deemed suitable for this study. All subjects were white South African residents from the northern and eastern residential suburbs of Johannesburg.

7.1.1 Screening and sampling

The completion of a panic disorder screening questionnaire confirmed subjects' suitability to this study (appendix 4). Subjects were then divided into three experimental groups according to their fear identification questionnaire responses (appendix 4). All subjects spontaneously verbalized an overriding fear falling into one of the three DSM-IV diagnostic fear categories, specifically: fear of death, fear of going mad and fear of extreme social embarrassment. These fear experiences provided the independent variables of this study. These variables are classification factors so the experimenter could not manipulate their occurrence resulting in research groups of unequal size

and creating an post facto research design. The distribution of subjects amongst these 3 groups is indicated in table 6.

Table 6
Number of males and females in each experimental group

Group	Fear	Females	Males	Total
A	Death	10	3	13
B	Madness	7	2	9
C	Social Embarrassment	10	1	11
	Total	27	6	33

7.1.2 Demographics

A detailed summary table of subjects' demographic details, including the duration of their pre-diagnostic treatment searching, the number and type of practitioners consulted and a list of their diagnostic practitioners is presented in Appendix 6.

AGE

The means, ranges and standard deviations of subjects' ages are shown in table 7.

Table 7
Means, ranges and standard deviations of subjects' ages

Subjects	Mean	Range	SD
Females	42	22-67	9,87
Males	39	21-56	11,67
Both	41,5	21-67	10,30

GENDER AND MARITAL STATUS

The thirty-three subjects comprised 27 females and 6 males. Of the twenty-seven female subjects 19 were married women, 4 single women, 3 divorced women and 1 widowed woman. The 6 male subjects comprised 4 married men and 2 single men.

7.2 Duration of pre-diagnostic help seeking behaviour

Table 8 indicates the mean lengths of subjects' fruitless pre-diagnostic treatment searches, as well as the relevant ranges and standard deviations.

Table 8

Mean duration, range and standard deviation of pre-diagnostic help seeking behaviour.

Group	Mean	Range	SD
A	3 yrs. 3 mths.	5 mths. - 8 yrs.	28,3
B	7 yrs. 2,4 mths.	2 mths. - 16 yrs.	73,2
C	7 yrs. 6 mths.	1 yr. 2 mths. - 20yrs.	81,6

7.3 Number of pre-diagnostic treatments experienced

Table 9 indicates the mean number of treatments procured by each group and the relevant ranges and standard deviations.

Table 9

Means, ranges and standard deviations of pre-diagnostic treatments

Group	Mean	Range	SD
A	7	3 - 13	2,5
B	7	3 - 12	3,2
C	7,4	3 - 11	2,25

7.4 Symptoms experienced

Figure 5 graphically illustrates the symptoms subjects experienced associated with their panic disorder. Table 10 shows the symptoms subjects reported, during their treatment search, that are consistent with DSM diagnostic checklists. While, all subjects experienced diagnostic symptoms regularly, there are distinct differences between the 3 groups. The bold numbers indicate results that are particularly interesting or are referred to in subsequent discussions.

7.4.1 Symptoms consistent with DSM diagnostic checklist

Table 10
Symptoms consistent with DSM diagnostic checklist.

	Group A	Group B	Group C
Shortness of breath	8	3	7
Dizziness, lightheadedness	16	13	17
Palpitations	26	14	30
Trembling or shaking	33	31	36
Sweating	23	19	26
Choking	1	-	1
Nausea or abdominal distress	18	5	18
Depersonalization	17	19	5
Numbness or tingling	3	10	5
Chest pain	23	1	1
Fear of dying, going crazy or social embarrassment	4	4	-

All the subjects from all the groups frequently and consistently reported shaking (33, 31, 36), sweating (23, 19, 26) and palpitations (26, 14, 30).

Group A subjects' reports of pain symptoms, including chest pain and body pains, were very high relative to the other groups (33, 1, 4) and they reported frequent nausea and digestive discomfort (18, 5, 18).

Group B subjects reported less somatic symptoms than the other subjects. Their idiosyncratic symptom reports centered on depersonalization (17, 19, 5) and numbness or tingling (3, 10, 5).

Group C subjects' symptoms clustered around shaking (33, 31, 36), sweating (23, 19, 26), palpitations (26, 14, 30) and nausea and abdominal distress (18, 5, 18).

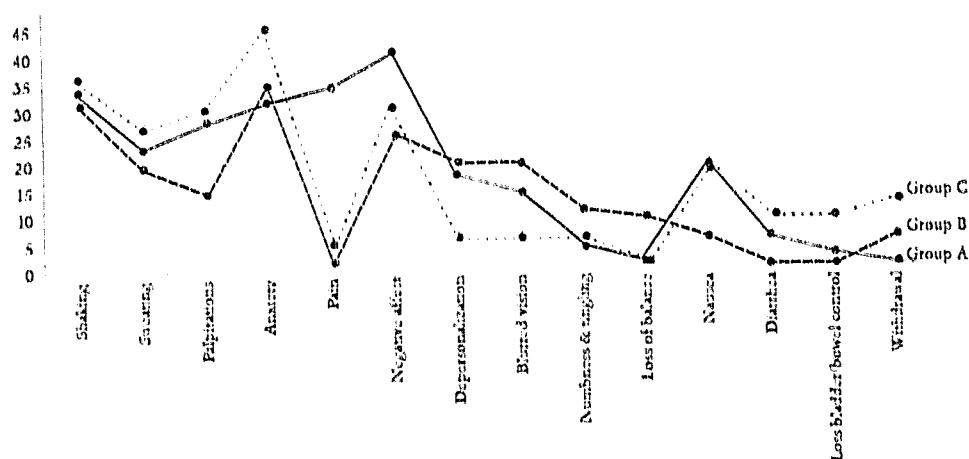
7.4.2 Symptoms additional to DSM diagnostic checklist

In addition to recognized diagnostic symptoms, significant clusters of other symptoms were repeatedly reported, as indicated in table 10,1. The most frequently and repeatedly presented symptom across all the subjects was anxiety and stress (31, 34, 46). All subjects also reported high experiences of not coping or dysfunctionality (15, 15, 18) and negative affect (41, 24, 30). Negative affect was calculated by the sum of reported excessive emotionality, depression, desperation and exhaustion symptoms.

Table 10,1
Symptoms additional to DSM checklist.

	Group A	Group B	Group C
Anxious/stressed	31	34	46
Excessively emotional	19	7	13
Going to explode	5	-	-
Depressed	9	5	7
Desperate	7	7	5
Exhausted	6	5	5
Dysfunctional/not coping	15	15	18
Attacks controlling my life	16	5	6
Social withdrawal	-	5	11
Impaired concentration	-	5	-
Blurred vision	15	19	5
Slurred speech	6	1	1
Dragging legs	5	-	9
Loss of balance	-	8	-
Difficulty breathing	10	-	1
Difficulty swallowing	6	1	9
Pain in arms/limbs	10	-	3
Diarrhoea	6	-	9
Loss bladder/bowel control	2	-	9
Acute unexpected attacks	6	10	6
Explained past treatments	3	6	7
Had attack there	12	3	3
Insomnia	4	1	2
Headaches	1	-	3
Sinus	-	-	2
Rash	1	-	-
Weight loss	-	-	1

Figure 5 Graphic representation of symptoms subjects experienced



Group A subjects reported significantly more experiences of negative emotions than either groups B or C (41, 24, 30).

Group B subjects reported the least negative affect symptoms (41, 24, 30), the most experiences of blurred vision (15, 19, 5) and they were the only group to report impaired balance (0, 8, 0).

Group C subjects' reported symptoms, additional to those consistent with the DSM checklist, reinforced their experiences of digestive discomfort, particularly diarrhoea (6, 0, 9) and loss of bladder and/or bowel control (2, 0, 9). These subjects also reported significantly more social withdrawal than their counterparts (0, 5, 11).

7.5 Types of practitioners consulted

Table 11 shows the percentage utilization of different practitioners. Scores are presented in percentages.

Table 11
Percentage utilization of different practitioners

Type of treatment	Group A	Group B	Group C
	%	%	%
General Practitioner	39	28,6	38,3
Psychiatrist	11,7	12,5	5,0
Psychologist	3,2	19,6	10,0
Mental health therapists	4,3	5,4	6,1
Medical specialists	25,7	15,9	18,5
Alternative practitioners	8,7	9,0	13,4
Emergency rooms	5,3	1,8	1,2
Hospitalization	-	3,6	5,0
Self medication/help	2,1	3,6	2,5

General practitioners were the most frequently and consistently consulted practitioners across all the groups, (39; 28,6; 38,3), with the mean number of consults lowest for Group B.

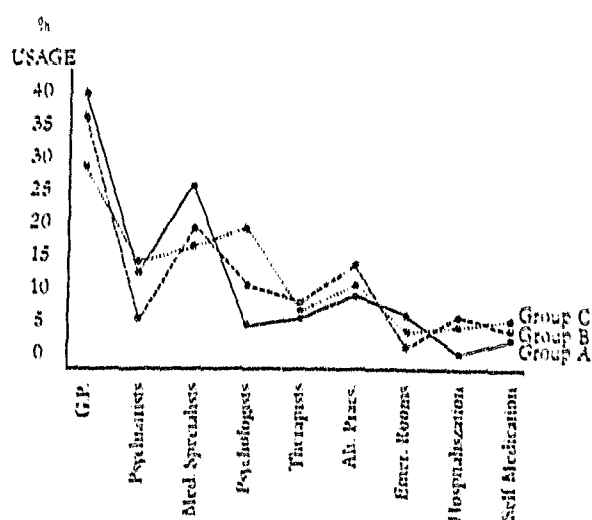
Group A subjects visited the most general practitioners (39; 28,6; 38,3) and medical specialists (25,7; 15,9; 18,5), a high percentage of psychiatrists (11,7; 12,5; 5,0) and the least psychologists of the three groups (3,2; 19,6; 10,0).

Group B subjects consulted fewest medical specialists (25,7; 15,9; 18,5) and, as noted, fewest general practitioners (39; 28,6; 38,3). These subjects were the most frequent users of psychologists (3,2; 19,6; 10,0) and psychiatrists (11,7; 12,5; 5,0) and readily consulted other mental health therapists (4,3; 5,4; 6,1).

Group C subjects' results showed a tendency towards the utilization of alternative practitioners (8,7; 9,0; 13,4) and of other, less traditional, mental health therapists (4,3; 5,4; 6,1) relative to the other groups.

It is also noted that while Group C subjects score on usage of medical specialists is high, this usage was divided among the infrequent consultation of many and different specialists including neurologists, cardiologists, specialist physicians, ear nose and throat specialists, gynaecologists, dermatologists, orthopaedic specialists and rheumatologists while the medical specialists attended by group A centred around specialist physicians, cardiologists, neurologists and gastroenterologists.

Fig 6 Graphic representation of practitioners consulted



7.6 Symptom presentation

Table 12 shows subjects' differential presentation of symptoms to the different practitioners they consulted. The single most consistently

reported symptom by all subjects to all practitioner groups was anxiety and stress.

Table 12
Differential presentation of symptoms

Symptoms	G.P			Psychiatrist			Psychologist			Medical specialists			Mental health therapists			Alt. practs.		
Groups:	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Fear	2	.	.	-	1	.	2	2	.	-	.	.	-	.	.	-	1	.
Sweating	13	7	13	4	2	.	-	4	4	4	3	3	-	.	.	-	3	5
Shaking	18	10	16	5	4	2	-	8	4	8	5	6	-	1	2	-	3	5
Palpitations	14	8	14	5	.	1	-	4	2	7	2	6	-	.	2	-	.	3
Dizziness	6	7	3	3	.	2	-	.	2	4	4	1	1	.	.	-	.	1
Anxious	12	12	15	5	3	1	2	10	5	.	3	9	1	1	3	5	4	8
Depersonalization	5	11	4	4	2	1	1	4	.	6	1	.	1	.	.	3	3	1
Negative Affect*	18	7	13	8	2	.	2	11	10	6	1	4	-	.	.	-	1	.
Nausea	10	1	5	-	.	1	-	1	2	4	1	5	-	.	.	-	.	.
Pain in stomach	12	.	5	-	.	.	-	.	.	12	2	1	-	.	.	1	.	.
Not coping	-	2	8	-	1	1	-	4	8	-	.	1	-	.	1	-	.	1
Attacks in control	7	.	1	2	3	1	4	1	1	3	.	.	-	1	1	-	.	2
Had attack there	4	2	1	1	.	1	-	.	.	4	.	.	-	.	.	-	.	.
Blurred vision	5	6	3	2	1	.	-	5	.	7	3	1	-	.	.	-	4	1
Numbness	2	4	3	-	1	.	-	.	.	1	4	2	-	1	.	-	.	.
Loss of balance	-	2	.	-	.	.	-	1	.	-	5	.	-	.	.	-	.	.
Diarrhoea	5	.	5	-	.	.	-	.	2	1	.	2	-	.	.	-	.	.
Loss of bladder/bowel control	2	.	4	-	.	1	-	.	.	-	.	2	-	.	.	-	.	2
Social withdrawal	-	2	6	-	1	2	-	2	2	-	.	.	-	.	.	-	.	1

* including excessive emotionality, depression, desperation and exhaustion

All subjects clearly took their somatic symptoms to medical professionals, primarily to general practitioners and secondly to medical specialists.

Group A subjects also described somatic symptoms to psychiatrists but not to psychologists at all. The only symptoms these subjects reported to psychologists were anxiety and negative affect.

Group B subjects reported their somatic and anxiety symptoms fairly evenly between general practitioners and psychologists, relative to the

frequency of their consultations with each of these practitioner groups; they reported most negative affect to psychologists and shared their pertinent symptoms of numbness and tingling (4, 4) and loss of balance (2, 5) between general practitioners and medical specialists and blurred vision (6, 5, 4) among general practitioners, psychologists and alternative practitioners.

Group C subjects spread their identifying symptoms of nausea (5, 2, 5) and diarrhoea (5, 2, 2) among general practitioners, psychologists and medical specialists and loss of bowel and/or bladder control (4, 2, 2) between general practitioners, medical specialists and alternative practitioners. They reported their social withdrawal behaviour primarily to general practitioners and also to psychologists, psychiatrists and alternative practitioners (6, 2, 2, 1).

7.7 Treatments received

Table 13 lists the medications prescribed for subjects during their pre-diagnostic treatment search. All subjects received frequent prescriptions for anxiolytics and anti-depressants while group A were given significantly more *other* medication.

Table 13
Number of medications prescribed during pre-diagnostic treatment search

Medication	Group A	Group B	Group C
Anti-depressants	18	11	18
Anxiolytics	24	20	26
Other	29	10	11
Total	71	41	55

Table 13,1 shows the number of psychotherapy sessions each group underwent. This was a consistently utilized treatment across all 3 groups.

Table 13,1

Number of pre-diagnostic psychotherapy treatments

Group A	Group B	Group C
10	13	12

Table 13,2

Number of pre-diagnostic medical procedures

Treatment	Group A	Group B	Group C
ECG	13	6	4
Stress ECG	2	2	1
Holter ECG	2	-	-
EEG	5	5	3
Brain CAT scan	3	-	2
Brain MRI scan	2	2	1
Lumber puncture	1	1	5
Myelogram	-	-	2
Full blood count	12	9	11
Liver functions	2	2	-
Hormone functions	4	2	5
Thyroid functions	3	1	4
Kidney functions	1	1	-
Glucose test	6	3	2
AIDS test	1	1	-
Malaria test	-	1	-
Allergy tests	-	1	-
Urine test	-	2	-
Cholesterol test	-	1	-
Tilt test	-	1	-
Pap smear	1	-	1
D & C	-	-	1
Carpel tunnel test	1	-	-
Pregnancy test	1	-	-
Lung capacity test	1	-	-
Spine X-ray	-	2	-
Chest X-ray	-	1	-
Abdominal ultrasound	2	2	1
Gall bladder X-ray	-	-	1
Nuclear X-ray	1	2	-
Barium Meal X-ray	1	-	3
Gastroscope	5	1	2
Colonoscope	2	1	1
Total	72	50	50

Table 13,2 (above) lists the various medical procedures subjects endured during their frequent consultations with medical practitioners before they were diagnosed as panic disorder sufferers. Group A

subjects were exposed to 44% more medical procedures than either groups B or C subjects although the mean number of practitioners consulted by each group was almost the same (7, 7, 7.4).

7.8 Treatment experience

Table 14 lists subjects' mean self-ratings on Likert scales ranging from 0 - 5 for each practitioner group. Treatments were rated by subjects on 3 components:

- subjects' experiences of practitioners' understanding of their problem
- subjects' confidence in practitioners' proposed treatments
- subjects' satisfaction in the treatment provided

Practitioners consulted were divided into 6 groups:

- general practitioners
- psychiatrists
- medical specialists (excluding psychiatrists and including physiotherapists and dieticians)

These 3 categories comprised the traditional medical practitioners referred to in section 6.3.4.1 and in the hypotheses of this study.

- mental therapists (including counsellors and re-birthers)
- psychologists

These 2 categories comprised the mental health practitioner group referred to in section 6.3.4.1 and in the hypotheses of this study.

- alternative practitioners (including homeopaths, aromatherapists, reflexologists, chiropractors, acupuncture, yoga and run-for-life)

Group A and group B subjects rated medical specialists highest on all three aspects while Group C subjects were most satisfied with psychologists' and mental therapists' treatment.

Group C's ratings of mental therapists' treatments is especially interesting as it is the only occasion where subjects rated their experience of the satisfaction of the treatment higher than either feeling understood by the practitioner or confident in his proposed treatment (3,0; 2,5; 3,5).

Conversely, subjects seemed particularly disappointed in the effects of some treatments received. Specifically, group A's experience of satisfaction from mental health therapists (5,0; 3,0; 1,5), group B's from psychologists (2,9; 2,1; 1,6) and group C's from medical specialists (3,8; 3,1; 2,5) were particularly low relative to their experience of being understood and their confidence in the proposed treatments.

Table 1-4
Mean ratings of treatment experiences

Practitioner	Group A			Group B			Group C		
	U/stood	Conf.	Satis.	U/stood	Conf.	Satis.	U/stood	Conf.	Satis.
General Practitioner	2,1	2,0	1,6	2,8	2,6	1,8	2,4	2,3	2,0
Psychiatrist	2,2	2,1	1,2	2,0	2,3	1,7	2,8	2,0	1,3
Psychologist	2,0	2,0	1,7	2,9	2,1	1,6	3,3	2,9	2,9
Medical Specialist	4,6	4,6	3,4	4,4	4,2	3,6	3,8	3,1	2,5
Mental therapist	3,0	3,0	1,5	1,3	1,0	1,0	3,0	2,5	3,5
Alternative prac.	3,2	2,5	2,0	2,5	1,5	1,3	3,1	2,7	2,1

7.9 Severity of panic disorder

Table 15
6 Subjects' self ratings of the severity of their pre-diagnostic panic condition

Group A			Group B			Group C		
Freq.	Anx.	QOL	Freq.	Anx.	QOL	Freq.	Anx.	QOL
Subject No. 005			Subject no. 001			Subject no. 018		
7	5	6	7	5	4	4	4	4
7	5	8	7	5	8	5	5	6
7	5	8	5	5	6	5	5	6
6	5	8	6	5	8	7	5	8
5	5	8	7	5	8	7	5	8
5	5	8	7	5	8	7	5	8
5	4	8	7	5	8	7	5	8
6	5	8	6	4	8	7	3	8
7	5	8				5	3	6
7	5	8				5	5	6
Subject no. 012			Subject no. 006					
7	5	6	6	4	6			
7	5	8	6	4	6			
7	5	8	6	5	6			
7	5	8	3	4	4			
6	5	8	7	5	8			
6	5	8	7	5	8			
5	4	6	7	5	8			
			4	4	6			
			5	4	6			
			Subject no. 032					
			6	5	8			
			7	5	8			
			7	5	8			
			7	4	8			
			7	4	8			
			7	5	8			
			7	3	6			
			7	3	6			
			7	3	6			
			7	3	6			

Subjects rated the process of their condition on Likert self rating scales. The frequency of their attacks was rated from 0 - 7, their associated anxiety from 0 - 5 and the impact of their condition on their quality of life from 0 - 8, as outlined in chapter 6. Generally, subjects' ratings of the severity and impact of their disorder during the treatment search

period showed very little alteration. Most subjects rated their disorder at the most severe rating in terms of frequency of attacks (7), anxiety around their disorder (5) and the impact of their disorder on their quality of life (8). Six subjects did report changed ratings during the pre-diagnostic search. These are shown in table 15 above.

7.10 Direct medical costs of pre-diagnostic treatments

Table 16 indicates total pre-diagnostic medical expenses for all subjects in this study. Table 16,1 splits these among the 3 groups, while table 16,2 gives the individual subject's pre-diagnostic medical costs.

Table 16

Mean, range and standard deviation of total pre-diagnostic medical expenses for all subjects

Mean	R24 506,43
Range	R1511,60 - R99 559,02
SD	24,1

Table 16,1

Means, ranges and standard deviations of pre-diagnostic medical expenses for each group.

Group	Mean	Range	SD
A	R22 269,25	R3 362,67 - R75 721,09	19,7
B	R27 156,13	R2 428,11 - R63 581,75	22,6
C	R24 982,43	R1 511,60 - R99 559,02	31,1

Table 16,2

Costs of pre-diagnostic treatment

Group A		Group B		Group C	
Subject no.	Costs (R)	Subject no.	Costs (R)	Subject no.	Costs (R)
002	18510,32	001	58871,76	003	4314,28
005	10342,61	004	2428,11	010	4419,80
007	3362,67	006	63581,75	013	1511,60
008	4334,31	014	14582,90	015	15825,85
009	10801,59	017	33138,48	018	11466,02
011	15904,14	024	6429,50	019	13875,13
012	12427,66	028	14787,06	021	56145,54
016	36912,24	032	38931,37	022	99559,02
020	26277,75	033	11654,28	023	3872,67
026	22945,89			025	52267,71
027	14851,86			030	11549,11
029	75721,09				
031	7108,21				

The total medical expenses were divided between the cost of consultations with medical practitioners and the cost of treatments received, including x-rays, blood tests and prescribed medicines for each subject. These are presented in appendix 7 with their means presented in table 17 below.

Table 17

Means, ranges, and standard deviations of the costs of practitioners and medical procedures (including medicines) for each group.

Groups	A	B	C
Mean practitioner costs	R6 568,54	R18 871,53	R12 486,28
Range of practitioner costs	R1 608,60 - R14 697,60	R897,60 - R55 885,20	R621,00 - R69 300,30
SD of practitioner costs	3,9	21,4	19,9
Mean treatment costs	R15 700,71	R8 284,60	R12 496,14
Range of treatment costs	R384,37 - R68 606,79	R1 006,26 - R26 816,47	R800,60 - R38 907,84
SD of treatment costs	18,5	7,6	14,0

Table 18 presents the mean ages, ranges and standard deviations for the control subjects utilized. The groups consisted of subjects with no chronic illness diagnosis (NC), subjects diagnosed as suffering from a chronic asthma condition (AST) and subjects diagnosed as suffering from a chronic hypertension condition (HYP). Each group had 12 subjects made up of 9 females and 3 males.

Table 18

Mean, ranges and standard deviations of control subjects' ages

Group	Age	Range	SD
NC	38,3	26-46	4,9
AST	40,7	28-56	8,1
HYP	42,0	30-68	10,6

Table 18,1 show the means, ranges and standard deviations of medical expenses incurred by control groups over a 12 month period,

specifically January 1996 to December 1996 inclusive, excluding dentistry and optometry.

Table 18,1

Means, ranges and standard deviations of control groups' annual medical expenses

Groups	Means	Ranges	SD
NC	R1 288,02	R51,10 - R5 930,61	1,6
AST	R2 173,22	R614,30 - R5 611,06	1,5
IYP	R2 225,13	R48,00 - R6 620,36	1,7

Table 18,2 lists the mean, ranges and standard deviations of medical expenses, over a 1 year period, for both the control and the experimental groups. As no control subjects had been hospitalized during the twelve month period investigated, hospitalization costs were excluded from the experimental groups' means. The cost of over-the-counter medication utilized by panic disorder subjects was also excluded as this would not be included in the control subjects' medical aid claims from which their expenses were calculated.

Table 18,2 -

Means, ranges and standard deviations of annual medical expenses for both experimental and control groups

Group	Mean	Ranges	SD
A	R6 269,73	1009,81 - 14 851,86	3,9
B	R6 958,18	1285,90 - 18 618,09	6,1
C	R3 222,94	245,54 - 9 951,12	3,1
NC	R1 288,02	51,10 - 5 930 61	1,6
AST	R2 173,22	614,30 - 5 611,06	1,5
IYP	R2 225,13	48 0 - 6 620,36	1,7

7.11 Diagnosis

Table 19 indicates the practitioners who finally diagnosed the subjects of this study as suffering from panic disorder.

Author Clarence L

Name of thesis The Role Of Fear In The Length, Process And Cost Of Pre-Diagnostic Illness Behaviour In Panic Disorder Patients
Clarence L 1999

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.