MEASUREMENT OF PSYCHOLOGICAL IMPAIRMENT IN MATTERS OF CIVIL LITIGATION

APS Working Group on the Measurement of Psychological Impairment
# TABLE OF CONTENTS

**SECTION** | **Page**
--- | ---
Executive Summary | 1

**METHODS OF IMPAIRMENT EVALUATION** | 2

1. American Medical Association's guidelines | 2
   1.1 Introduction | 2
   1.2 Essential definitions, Principles and Stages | 2
   1.3 Problems with the AMA Guidelines | 7

2. Victorian government gazetted "clinical guidelines to the rating of psychiatric impairment" | 8
   2.1 Outline of the Victorian Model | 8
   2.2 Problems with the Victorian Model | 9

3. Towards a better Method of Impairment assessment | 10
   3.1 A need for improvement | 10
   3.2 the ‘Global Assessment of Functioning Scale’ (GAF) | 10
   3.3 GAF Vignettes | 10

4. A recommended model of Impairment Assessment | 14

5. Comparison of Approaches | 16
   5.1 Case Examples | 16
     Case 1: Criminal Injuries matter | 16
     Case 2: Workcover Matter | 20
     Case 3: Motor Vehicle Accident Matter | 25
     Case 4: Workcover Matter | 28
   5.2 Summary of Case studies | 33
APPENDICES

Please note: Appendices are not available in electronic form. Please contact the APS National Office if you require hard copies:

contactus@psychology.org.au
Tel: 03 8662 3300


Appendix 2: Discussion Paper APS Division of Independently Practising Psychologists (Victorian Section) (July 1997)


Appendix 4: includes the paper by Dr Michael Epstein (1999) entitled "An Evaluation of the Reliability using "The Clinical guide to the rating of psychiatric impairment"

Appendix 5: Global assessment Functioning scale (GAF) (refer DSM IV, p32)

Appendix 6: Position Statement on the Assessment and Diagnosis of Clinical Psychopathology
1. Executive Summary

The purpose of this paper is to provide guidelines for the evaluation and quantification of psychological impairment in the Australian civil legal system. Following a Discussion Paper produced by the Victorian Section of the Division of Independently Practising Psychologists in July 1997, the Australian Psychological Society recommended the formation of a working group to examine the Guidelines used in the measurement of impairments related to "mental and behavioural disorders" (July 1998). In particular, the subcommittee was asked to review the American Medical Association’s "Guide to the Evaluation of Permanent Impairment" (4th Edition) section on "Mental & Behavioural Disorder" (Chapter 14). The subcommittee comprised a representative sample of psychologists working in practice and included psychologists from the APS Colleges of Clinical Psychologists, Clinical Neuropsychologists, Counselling Psychologists, and Forensic Psychologists, as well as psychology representatives from the Institute of Private Practising Psychologists and the APS Division of Independently Practising Psychologists.

A committee of psychiatrists from Victoria was also examining the issue. They proposed a model that was published in August 1998 as an alternative to the AMA Guide, and have subsequently written on its merits. It is the aim of this paper to outline the findings from the respective committees and compare the various approaches of psychological impairment assessment from both theoretical and practical perspectives.
METHODS OF IMPAIRMENT EVALUATION

1. THE AMERICAL MEDICAL ASSOCIATION’S GUIDE

1.1 Introduction

In June 1993 the American Medical Association published the 4th Edition of the "Guide to the Evaluation of Permanent Impairment". Chapter 14 of this Guide considered the evaluation of impairment related to "Mental and Behaviour Disorders". It was noted that the Guide was explicitly produced by Medical Practitioners primarily for their use. Many legislative directives, both in the United States and Australia, require all clinical practitioners (Medical Practitioners and non-Medical Practitioners) to follow the AMA Guide. While this directive is logical from the viewpoint of consistency, the tools available to different professionals varies, and in order that all groups can maximise their evaluative contributions, a structure is required whereby the assessment process can be accommodated for the various professional disciplines. In this context, the Australian Psychological Society undertook to review the Guidelines associated with the assessment of "Mental & Behavioural Disorders" from the perspective of a psychologist with appropriate training and qualifications.

1.2 Essential definitions, principles and stages

One aspect of maintaining consistency of meaning is by using terms that have an agreed definition. Accordingly, the terms "impairment", "permanent impairment", "disability", "activities of daily living" are defined according to the AMA Guide.

The term "accident" will be referred to as the relevant incident/incidents related to the civil matter and is usually associated with usually a motor vehicle accident or work accident or criminal injury.

"Impairment" refers to there being an alteration of an individuals’ health status so as to interfere with activities of daily living. The World Health Organisation defines "impairment" as "any loss or abnormality of psychological, physiological or anatomical structure or function".

A "permanent impairment" refers to an impairment that has stabilised and unlikely to change.

The World Health Organisation (WHO) defines a disability as "any restriction or lack [resulting from an impairment] of ability to perform an activity in the manner or within the range considered normal for a human being." It is indicated that an "impaired" individual is not necessarily "disabled" and there may be great variation depending on the individual’s normal daily activities. For example, in physical injuries, the loss of a "left hand little finger" may greatly disable a concert pianist but have little impact upon the functioning of a bank manager.
"Activities of daily living" include such activities as: Self-care & personal hygiene, sexual functioning, sleep, eating and preparing food, communication, speaking and writing, maintaining one’s posture, standing and sitting, caring for the home and personal finances, walking, travelling and moving about, recreational and social activities, and work activities.

Finally, although there may be a number of potential causes for the client being assessed for impairment, for the purpose of the current paper it will be assumed that he or she was involved in an accident that lead to his or her potential impairment.

The AMA Guide specifies that in determining a person’s classification of impairment due to mental and behaviour disorders, a number of criteria need to be determined. First, the person’s premorbid status needs to be measured. Second, a determination is required as to whether the person has a "psychological impairment". Third, it is necessary that a causal link is shown to exist between the "accident" and the "psychological impairment". Fourth, it is necessary to determine whether or not the "impairment" is stable, or whether as a consequence of time and/or treatment the condition will change. Fifth, a determination is made as to the impact that the "impairment" has upon the person’s daily living functions. Sixth, the level of severity upon daily living functions is calculated with reference to the person’s premorbid state.

**Stage 1: What was the client’s pre-morbid functioning level?**

Determining a client’s pre-morbid functioning level is determined by collecting relevant information about the person’s daily living activities prior to the accident. This should include a description from the client of his/her premorbid functions. It may include information from the client’s workplace and friend/relatives, written reports (e.g., school reports) and any other relevant information. If issues of premorbid cognitive functioning are sought, psychometric testing may be required to obtain an estimate of the person’s pre-accident level. Tests robust to brain injury and psychological functioning may enable an estimate of the person’s pre-accident abilities to be calculated. In determining a measure of global functioning, it is recommended that the Global Assessment of Functioning (GAF) Scale (refer DSM-IV, p32) be used.

**Stage 2: Does the Client have an impairment?**

In determining whether a client has an "Impairment" the assessor would generally obtain information from many data sources.

These would include:

(i) Background information from the client

(ii) Collateral information from family/friends or other relevant parties about the client

(iii) Previous psychological/medical/education/vocational reports
(iv) Accident history (past and present)

(v) Treatment background

(vi) Daily living activities review

(vii) Psychometric testing data

(vi) Formulation of a DSM-IV diagnosis.

The background information from the client would usually include information about
the client’s family, relationships, education and vocation, health / mental health and
current problems.

The collateral information may include interviews with other family members, work
colleagues, and those who may be involved in the person’s daily living activities.
Previous reports may be those prepared about the client by other assessors. This may
include past psychological, medical, education and vocation reports.

Accident history information may include both the client’s account of the present
accident and details about any previous accidents he or she may have experienced. If
there are independent reports about the accident, these may be of relevance.

If the client has received any current or past treatment for injuries etc, these should be
documented with supporting material from those engaged in treatment. Some measure
of the client’s responsiveness to treatment should be addressed.

A description of the client’s current daily living activities should be determined, and a
measure of the person’s general global functioning using the Global Assessment of
Functioning (GAF) Scale should be determined.

Psychometric testing data are recognised as an important component of a
psychologist’s assessment. In choosing the relevant psychological tests the
psychologist should aim to ensure that the test instruments satisfy the APS Code of
Ethics (Psychological Assessment Procedures, Section A) and the following
properties:

1. The test should be relatively current and in common usage

2. The psychometric properties of test should show both validity and reliability

3. The test limitations should be clearly identified (e.g., age, reading level etc.)

4. The test should have full normative data available for both
   clinical and non-clinical populations

5. The test procedures should be standardised and be repeatable
   by other psychologists
6. There should be a body of literature that would support the use of the particular test in the context of an impairment assessment.

7. Ideally, the psychometric testing should incorporate a measure that may indicate whether the client is providing a biased response set.

8. In presenting psychometric data the psychologist should include basic descriptive information about the tests being used and the results should include some recognised quantitative measures (e.g., percentile measures).

The process of determining whether the impairment satisfies a DSM-IV diagnosis should be based on all the relevant information obtained within the assessment.

**Stage 3: Is there a causal link between the "accident" and the "psychological impairment"?**

It should be clearly stated by the assessor how, and to what degree, in his or her professional opinion, the accident contributed to the impairment. Should other factors have contributed to the client’s condition, these also should be clearly expressed.

**Stage 4: Is the "impairment" stable, or as a consequence of time and/or treatment will the condition change?**

If the assessment indicates that as a result of the accident the client sustained a mental impairment, the assessor’s next function is to determine whether the condition is stable. This question can usually be determined by examination of longitudinal data for a period of between 6 and 12 months.

It is also critical to determine whether or not the client has received any treatment for the impairment. If treatment has not taken place, and is planned, a procedure for reviewing the impact of the treatment should be determined within a realistic time-frame. If no treatment is planned, then recommendations for psychological treatment should be made and is warranted.

**Stage 5: Impact that the impairment had caused upon the person’s daily functioning**

In order to determine the impact that the impairment has caused upon the person’s daily functioning a systematic evaluation of four areas of functioning are identified by the AMA Guide (p294-295).

These include:

1. Activities of daily living
2. Social functioning
3. Concentration, persistence and pace
(4) Deterioration or decompensation in work or worklike settings.

Activities of daily living include self-care and personal hygiene, sexual functioning, sleep, eating, preparing food, shopping, communication, speaking and writing, maintaining one’s posture standing and sitting, caring for the home and personal finances, walking, travelling and moving about (using public transport), recreational and social activities, and work activities.

Social functioning relates to the following: ability to get along with family, friends, neighbours, general public, ability to respond appropriately to people in authority, ability to co-operate with co-workers, ability to initiate social contact, and ability to participate in group activities.

Concentration, persistence and pace relates to the person’s ability to complete tasks. This includes the ability to maintain focused attention long enough to complete everyday household/work tasks. Problems with concentration, persistence or pace may be seen to affect the person’s ability to complete the task.

Deterioration or decompensation in work or worklike settings relates to the person’s failure to adapt to ‘normal’ stressful circumstances, show a negative response to stress, decompensate in work situations, fail to understand and follow instructions over extended periods, be unable to regularly attend work or maintain consistent standard of work, be unable to ask necessary questions, adapt to changes, be aware of hazards, or make plans independently.

Each of these four areas of functioning can then be rated individually on a five point scale:

1. No Impairment
2. Mild Impairment - the person can carry out most useful functioning
3. Moderate Impairment the person can carry out some, but not all useful functioning
4. Marked Impairment the person is significantly impeded with his or her useful functioning
5. Extreme Impairment the person cannot carry out any useful functioning

Stage 6: Calculation of the level of severity of the impairment upon the person’s daily functioning

Finally, an overall estimate of the severity of the impairment upon the person’s daily functioning is determined by comparing the person’s pre-morbid functioning with his or her post accident functioning when the impairment condition is stable. The person’s overall level of impairment is expressed in the form:
1. No Impairment
2. Mild Impairment
3. Moderate Impairment
4. Marked Impairment
5. Extreme Impairment

By comparison with the AMA Guide 2nd edition, comparative criteria can allow the estimate of the percentage levels of impairment to be determined.

Appendix 1 provides a copy of the AMA Guide (4th edition) (Chapter 14).

1.3 Problems with the AMA Guidelines

Major criticisms and confusions have been expressed by professionals and professional associations (representing Psychiatrists, Psychologists and Lawyers) in relation to the AMA Guidelines about the measurement of impairment in the mental health domain. In essence, these criticisms relate mainly to stages 5 and 6 of the assessment process. The assessment requires a wide range of areas to be considered which frequently lead to inconsistencies in ratings. Perhaps the most scathing criticism came from the principal author of the AMA Guide 2nd and 3rd Editions when he stated “the ratings are of doubtful scientific validity”. The Guide in its attempt to overcome these problems, varied its measurement criteria from "percentages" (in the 2nd Edition) to "categories" (4th Edition). Despite these changes, wide variation persisted between assessors and a need for greater consistency was advocated by the various professional bodies. A review was carried out by the members of the Australian Psychological Society's Division of Independently Practising Psychologists (Victorian Section) in 1996, and it was argued that a large proportion of its membership was dissatisfied with the Guide on many grounds. Similarly, a group of medical practitioners in Victoria sought to improve the AMA approach for its members, and put forward an alternative model to calculate the person's level of impairment. The following section will examine this model.
2. VICTORIAN GOVERNMENT GAZETTED "CLINICAL GUIDELINES TO THE RATING OF PSYCHIATRIC IMPAIRMENT"

2.1 Outline of the Approach

In October 1997 a Victorian panel of medical practitioners determined a clinical guide to the rating of psychiatric impairment which was published in the Victorian Government Gazette on 28 August 1998. Their guide recommended that a number of principles be taken into consideration by the clinician when carrying out an impairment assessment.

These included the following:

First, that the mental state examination be the "prime method of evaluating psychiatric impairment" (principle 1). It was recommended that a DSM-IV diagnosis be determined that would provide a guide to the severity and duration of the impairment, but not be the only criterion (principle 2). In addition it was recommended that impairment be determined in the context of the person’s level of functioning, their education, financial, social and family circumstance (principle 3). It was indicated that the person’s motivation to improve should be taken into account (principle 4), and their treatment and rehabilitation progress be reviewed (principle 5).

The guidelines recommended that the client be rated on a 5 point scale for six criteria:

1. intelligence (a person’s capacity for understanding)

2. thinking (the ability to form or conceive in the mind)

3. perception (the brain’s interpretation of internal and external stimuli)

4. judgment (the ability to assess a given situation and act appropriately)

5. mood (emotional tone underlying the behaviour)

6. behaviour (specifically examining behaviour that is disruptive, distressing or aggressive).

The 5 point rating scale was aimed to represent the person’s level of impairment where a rating of "1" indicated ‘normal’ functioning or no deficit.

The level of severity of impairment ratings were:

"1" (no deficit (0-5% impairment)), "2" (slight deficit (10-20% impairment)),

"3" (moderate deficit (25-50%)), "4" (moderately severe (55-75%)) and

"5" (severe deficit (>75%)).

It should be noted that the above discontinuous percentages are the actual percentages given and not typographical errors. It was recommended that the whole person
impairment be calculated as the median rating for the 6 individual impairment criteria. It was recommended that the overall impairment also take into account the person’s level of function, and that the Global Assessment of Function scale (GAF) be used to assist the calculation. Epstein (1999) provided a review of data involving this approach as used by 61 psychiatrists who attended a training workshop. He concluded that the method, although relatively crude, was quick and showed a reasonable degree of reliability.

2.2 Problems with the Victorian Model

Several comments are evident when comparing the Victorian model with the AMA guide.

1. The Victorian model assessment does not require the client’s premorbid status to be considered

2. The Victorian model assessment does not stipulate that the client’s assessed state is a direct consequence of the accident

3. Some terms used by the Victorian model are confusing as they have defined meanings in recognised fields (e.g., categories of intelligence) and these terms bear little relevance to the definitions applied with the Victorian model.

4. The categories of impairment in percentage terms are disproportionate adding confusion to their functional meaning. (e.g., category 1 has a range of 5%, category 2 a range of 10%, e.g., category 3 a range of 25% etc.)

5. The % impairment category ratings appear as a discontinuous scale (e.g. while category 1 is within the 0 to 5% range, category 2 is within the 10 to 20% range, there is no theoretical category rating for a rating within the 6 to 9% range etc.) Logically, from a theoretical perspective, the rating measure should be representative of a continuous scale.

Appendix 3 includes a copy of the "Clinical guide to the rating of psychiatric impairment" published in the Victorian Government Gazette on 28 August 1998

Appendix 4 includes the paper by Dr Michael Epstein (1999) entitled "An Evaluation of the Reliability using "The Clinical guide to the rating of psychiatric impairment"."
3. TOWARDS AN IMPROVED METHOD OF IMPAIRMENT ASSESSMENT

3.1 A need for improvement

The models of impairment assessment discussed have strengths and weaknesses. The AMA Guide in general provides a logical methodological approach to assessment, but problems of ambiguity arise in determining the final rating of the person's level of impairment.

The Victorian model has aimed to simplify the process, but unfortunately in doing so has ignored some essential components. Its theoretical structure is a cause for concern as it does not provide a logically balanced rating measure.

What is required is an approach that:

1. is consistent and straightforward
2. is capable of being used by both psychologists and psychiatrists
3. has universal application

To this end the following solution is proposed. The critical measure that has largely been ignored, but which can provide an overall measure of a person's level of psychological functioning, is the 'Global Assessment of Functioning' Scale (the GAF), also referred to as "Axis V" of the DSM-IV Multiaxial assessment scale.

3.2 The 'Global Assessment of Functioning' Scale (the GAF)

The 'Global Assessment of Functioning' Scale (the GAF) was originally developed in 1976 by Endicott, J., et al. It was introduced in DSM-IIIR in 1987 within the Axis V of the five dimensional diagnostic model. The GAF was consequently widely used in clinical practice throughout the world and with the revision of the DSM (to DSM-IV), the GAF continued its popular usage. The purpose of the GAF was to provide a standard measure of a person's psychological, social and occupational functioning, that was both reliable and valid. The GAF generated scores between 1 (minimal personal functioning) to 100 (superior functioning in a wide range of activities). Numerous studies (e.g., Bodlung et al, 1994; Hall 1995; Edson, et al 1997; Hintikka et al 1999, and, Jones et al, 1995) have provided empirical support for the GAF as a reliable and valid measure. In the United States, all patients discharged from a psychiatric bed have a GAF score recorded as part of the discharge process. This GAF score is stored in the VISTA Mental Health Package. Similarly, all patients seen as outpatients have a GAF score recorded by a qualified Mental Health Professional.

A guide for GAF ratings was provided by Michael First (1995).

3.3 GAF Vignettes

In early October 1997, the Intensive Psychiatric Community Care team in Brockton, Massachusetts reviewed 80 patients in its care and assigned GAF scores to reflect current functioning. The following patients were then selected to illustrate specific
GAF ratings and to provide some guidance to program staff doing individual ratings in the future.

3.3.1 Case 1 (GAF = 20)

Mr. A is a single male in his mid 60s who was admitted to the IPCC program about 2 years ago following lengthy hospital stays and repeated failures to adjust to residential care placements. One residential care sponsor described him as being very dependent and requiring constant supervision and attention. Mr. A was rehospitalised in 1992 when he assaulted a residential care sponsor after she told him to take a shower because he had been incontinent of faeces. During that admission he developed somatic delusions about having cancer, his ADLs continued to be very poor, and he began to smear faeces. With IPCC support, he was discharged in Nov. 1995 and placed in a rest home because he required a high level of care and supervision of his ADLs. Mr. A attends activities at the community-based IPCC day program 3 days a week. His speech is tangential and irrelevant at times, but he will usually cooperate if given explicit directions. Despite the fact that Mr. A has been able to live outside the hospital for the past 2 years, he remains very dependent on the rest home and IPCC staff for all his needs, and smearing faeces continues to be a problem.

CURRENT GAF RANGE 11-20 ("...OCCASIONALLY FAILS TO MAINTAIN MINIMAL PERSONAL HYGIENE, E.G., SMEARS FAECES...")

3.3.2 Case 2 (GAF = 22)

Mr. B is a male in his early 40s with a diagnosis of schizoaffective disorder who has had multiple psychiatric admissions, including 11 in the past two years for severe delusions (e.g., he believes he is a character from the Little Rascals, that he has a girlfriend who is a famous TV actress, and that he owns seven businesses). He has extremely poor money management skills, e.g., he is unable to purchase food and has been evicted for failure to pay his rent. He has a history of giving large sums of money away (i.e., $500-$1,000 at a time) to people (often drug users) he just met off the streets and considers his "friends" for religious reasons.

He refuses to participate in the community-based IPCC day program and prefers to stay in bed much of the day. He is noncompliant with taking psychotropic medications and attending outpatient appointments at the hospital. Recently, a conservator was appointed to handle his funds.

CURRENT GAF RANGE 21-30 ("BEHAVIOR IS CONSIDERABLY INFLUENCED BY DELUSIONS" AND "SERIOUS IMPAIRMENT IN ... JUDGEMENT" AND "INABILITY TO FUNCTION IN ALMOST ALL AREAS (E.G., STAYS IN BED ALL DAY; NO JOB...)"

3.3.3 Case 3 (GAF = 25)

Mr. C is a single male in his late 50s who was admitted to the IPCC program on July 1, 1996 after thirty years of continuous hospitalisation at the BVAMC. He now lives in a residential care home and attends the IPCC community-based day program five days a week. He needs lots of prompting to attend to ADLs and uses an assisted
transportation system to attend the day program. He hoards large amounts of money on his person and refuses to open a bank account, because he believes "the banks are controlled by the Mafia." He continues to express bizarre delusions of a religious and grandiose nature, believing that he is the Son of God and that he has the ability to communicate with animals and extraterrestrial beings.

CURRENT GAF RANGE 21-30 ("BEHAVIOR IS CONSIDERABLY INFLUENCED BY DELUSIONS" AND "SERIOUS IMPAIRMENT IN ... JUDGEMENT")

3.3.4 Case 4 (GAF = 28)

Mr. D is a male in his mid 40s who was discharged 2 years ago after 18 years of hospitalisation. He resides in a residential care home and attends IPCC community-based day programming 5 days/wk. He is in a structured money management program and receives concrete rewards for completion of daily ADLs. He is able to negotiate the city transportation system and is very capable of accessing community resources. He is extremely delusional, believing that his body is made out of glass or wood and believes that many people are his mother, including the queen mother in England. He is also very thought-disordered and tangential; suspected brain damage contributes to speech oddities.

CURRENT GAF RANGE 21-30 ("BEHAVIOR IS CONSIDERABLY INFLUENCED BY DELUSIONS...")

3.3.5 Case 5 (GAF = 32)

Mr. E is a single male in his mid 50s who has a long history of schizoaffective illness characterised by frequent mood swings. When in a manic phase, he exercises very poor judgment regarding financial matters and his behaviour is very inappropriate. When depressed he becomes sullen and withdrawn. He also experiences auditory hallucinations at times. He had numerous and lengthy hospitalisations for his illness, although far fewer and much shorter lengths of stay since entry into the IPCC program in 1989. He has not been able to hold a job in many years. His personal hygiene is quite poor. He resides in a boarding home where he receives assistance with his medications.

CURRENT GAF RANGE 31-40 ("...MAJOR IMPAIRMENT IN SEVERAL AREAS SUCH AS WORK OR SCHOOL, FAMILY RELATIONSHIPS, JUDGEMENT, THINKING OR MOOD")

3.3.6 Case 6 (GAF = 35)

Mr. F is a male in his early 50s who has had multiple admissions to the hospital. Two admissions during the past year were for an increase in auditory hallucinations that were telling him to harm himself and others. He continues to hear voices but is able to separate out that they are not real and will not act on them. In some areas he functions independently, for example, he showers and changes clothes daily, attends mass daily, and has a group of church friends with whom he has coffee. He is compliant with appointments and medications (even though he insists that religion is better than the
meds), and gets along well with the other day program members and with the residents at his residential care home. At the community-based IPCC day program, he follows through with his work assignment and attends groups, where he raises pertinent issues about community living and relates his personal experiences. However, he is very religiously preoccupied and has delusions about electricity, telephones and vehicles that are impairing, e.g., because of his delusions he will not ride in cars. As a result, he remains dependent on program staff for some essential services.

CURRENT GAF RANGE 31-40 ("SOME IMPAIRMENT IN REALITY TESTING" AND "MAJOR IMPAIRMENT IN SEVERAL AREAS, SUCH AS WORK OR SCHOOL, FAMILY RELATIONSHIPS, JUDGEMENT, THINKING, OR MOOD")

3.3.7 Case 7 (GAF = 45)

Mr. G is a male in his early 50s who has had multiple hospitalisations due to non-compliance with medications. When he was living in his own condo he would stop taking meds and become very paranoid, with hallucinations. He is now living in an apartment within a residential care home, where meals are provided and meds are supervised. He continues to experience some symptoms of paranoia and will have an occasional hallucination in which someone is calling his name. However, he drives his own car and attends the IPCC community-based day program, where he is in charge of collecting lunch monies and keeping data for the program's point-based reward system. He usually keeps to his own at the day program and what conversations he has tend to be short, but he visits his family twice a month.

CURRENT GAF RANGE 41-50 ("SERIOUS SYMPTOMS" AND "SERIOUS IMPAIRMENT IN SOCIAL, OCCUPATIONAL ... FUNCTIONING")

3.3.8 Case 8 (GAF = 52)

Mr. H is a divorced in-country Vietnam Male in his late 40s with a dual diagnosis of schizoaffective disorder and alcoholism, although he has been abstinent from alcohol for several years and has not been overtly psychotic since entry into the IPCC program in 1990. However, he becomes very anxious in social situations or when confronted with a stressful situation. He had not worked for several years until two years ago when he obtained part-time employment bagging groceries at a supermarket. He had some significant difficulties coping with the job and at one point became depressed and required admission to inpatient psychiatry. He currently is unemployed because he quit his part-time job and attempted to work full time, but then quit working altogether when he felt unable to cope with the demands of the new job. He resides in a rooming home and manages his own medications and funds.

CURRENT GAF RANGE 51-60 ("MODERATE SYMPTOMS" AND "MODERATE DIFFICULTY IN SOCIAL, OCCUPATIONAL, OR SCHOOL FUNCTIONING")
4. A LOGICAL APPROACH TO IMPAIRMENT ASSESSMENT

The following outlines the six stages involved for a recommended approach to impairment assessment. The methodological differences between a psychiatrist and psychologist are indicated principally in stage 2 of the assessment.

Stage 1: Determine the person's premorbid GAF score.

A person's GAF score is a score between 1 (extremely poor) and 100 (extremely high) based on a range of criteria outlined in the DSM-IV (pp 30-32). Determination of the person's premorbid score may require the assessor to obtain relevant premorbid measures (e.g., occupation / school reports, collateral information from others, the person's self report, etc). Both psychiatrists and psychologists are trained to carry out such measurement and standardised questionnaires can facilitate the measurement accuracy.

Stage 2: Determine whether the person has an 'impairment'

This would require the clinician to determine whether the person has an Axis I and/or Axis II (DSM-IV) diagnosis. Psychologists and psychiatrists may differ in their methodology in determining this stage.

Psychologists would base their opinion on data that include : the clinical interview, collateral information from family/friends about the client, previous psychological/medical/education/vocational reports, accident history (past and present), treatment background and the results of a range of psychometric testing in formulating of a DSM-IV diagnosis. Psychometric tests typically involve careful selection from a variety of measurement instruments specific to the problems of each individual.

Psychiatrists would differ in that their assessment would usually include a ‘Mental State Examination’ instead of a ‘psychometric test battery’ when determining the diagnostic status of the individual.

Stage 3: Is there a causal link between the "accident" and the "psychological impairment"?

The assessor determines whether the impairment is causally linked to the accident. It should be clearly stated by the assessor how, and to what degree, in his or her professional opinion, the accident contributed to the impairment. Should other factors have contributed to the client’s condition, these also should be clearly expressed.

Stage 4: Is the "impairment" stable, or as a consequence of time and/or treatment will the condition will change?

The assessor's next function is to determine whether the person's condition is stable over time and is affected by treatment. The assessor will examine longitudinal data about the client over a period of between 6 and 12 months and examine the effects of treatment over time. If treatment has not taken place, a procedure for reviewing the impact of the treatment should be determined.
Stage 5: What impact has the impairment had upon the person's daily functioning

In order to determine the impact that the impairment has caused upon the person's global functioning a Global Assessment Functioning (GAF) measure should be determined when the person's condition has stabilised.

Stage 6: Calculation of person's functional loss as a result of the impairment

Calculation of the severity of the person's level of functional impairment can be determined by comparing the person's pre-morbid GAF score with his or her post accident GAF score when the person's impairment condition is stable.

This score can be directly calculated as a percentage loss:

\[
\% \text{ Functional Impairment Loss} = \left\{ \frac{\text{GAF pre-morbid} - \text{GAF Post accident}}{\text{GAF pre-morbid}} \right\} \times 100 / \text{GAF pre-morbid}
\]
5. COMPARISON OF APPROACHES

5.1 CASE EXAMPLES

CASE 1: CRIMINAL INJURIES MATTER

SCENARIO

Mr R was a 21 year old male who was the victim of an armed holdup while working as a console operator in a petrol station. A masked gunman had held a gun to his head and demanded all the money from the till. As a result of the holdup Mr R was unable to return to his employment and became acutely anxious. He was referred to a mental health service four months after the incident and was admitted to hospital in a state of severe depression with psychotic elements and suicidal thinking. After three weeks he was discharged from hospital but remained extremely paranoid, anxious and unwilling to mix socially. His sleep patterns had become irregular and his relationship with significant others deteriorated. Two years after the holdup he had become a recluse, isolated and in receipt of an invalid pension.

Stage 1 : What was the Mr R's pre-morbid functioning level ?

Mr R's background history included several significant early traumas. Aged three, he reported being electrocuted when he touched a live model aeroplane. Aged nine, he reported being hit by a motor vehicle while crossing the road. While each of these accidents was potentially very serious, he avoided serious injury but stated that he felt anxious now when dealing with electricity or crossing the road. From the family perspective, Mr R indicated his parents separated when he was 17 years of age, and although he had a good relationship with his mother, his relationship with his father was comparatively poor. Mr R stated that he matriculated at the age of 17 years, but was unable to obtain employment for two years. He said his first job was that of a petrol station console operator. He said he worked in that job for 2 years prior to being the victim of an armed hold-up. He said he had a number of close friends but had never been in any serious relationship. His estimated pre-morbid Global Assessment Functioning was 80.

Stage 2 : Does the client have an impairment ?

2.1 The incident

Mr R said he was working alone as a console operator at a metropolitan petrol station, when around 10p.m. an adult male, wearing a balaclava and carrying a sawn-off shotgun, came into the petrol station and demanded money. He said he was petrified, and gave the man all the money that was in the cash register. He said that the man then wanted him to open the safe, but he said he was unable to do that as only the manager had the key. Mr R reported that the man told him he would kill him if he reported that he was Aboriginal to the police.
2.2 Reported symptoms as a result of the incident

Mr R indicated that soon after the hold-up he experienced symptoms of anxiety associated with seeing Aboriginal people, and felt very intimidated by other people. He said he began using marijuana to a greater extent, and noticed that his mood changed. He said he became less confident, more anxious, and more depressed. He said he became more socially isolated.

2.3 Treatment received following the incident

Mr R said he did not receive any debriefing from his employer after the robbery. Medical records indicated that four months after the hold-up, Mr R was admitted to the local Mental Health Service where he presented with symptoms of an "acute psychotic episode" that was diagnosed as being associated with his exposure to the hold-up. It was indicated that he was admitted for a three week period. Medical reports indicated that Mr R showed "significant improvement" when treated with 'Olanzapine'.

5.4 Psychological Assessment (1)

Fifteen months after the incident a psychological assessment was carried out to help determine whether Mr R was suffering an impairment. Three contemporary psychometric tests were used to examine Mr R's symptomatology and personality. These were the Personality Assessment Inventory (Morey, 1991), the NEO Five Factor Inventory-Form S (Costa & McRae, 1992) and the Traumatic Stress Inventory (Psychological Assessment Resources, 1995).

The PAI indicated that Mr R's responding was consistent and that he did not present an overly positive or overly negative response set. The PAI clinical scales indicated that he reported significant symptoms in the areas of affective anxiety, affective depression, traumatic stress and schizophrenia. On the interpersonal scales, Mr R's responses indicated an interpersonal style that was submissive and conforming.

The TSI indicated that Mr R reported significant clinical symptoms on the scales 'anxious arousal', 'dissociation', and 'impaired self-reference'. Such a pattern indicated multiple symptoms of anxiety and autonomic arousal, as well as episodes of depersonalisation, derealisation, and cognitive detachment. Mr R's personality profile indicated that he was a person who was emotionally unstable, introverted, open to new ideas and thinking, moderately agreeable, and not generally conscientiousness.

The assessment and historical data provided indicated that Mr R exhibits symptoms consistent with a diagnosis of 'post-traumatic stress disorder' (DSM-IV, pages 424-429).

Stage 3: Is there a causal link between the 'accident' and the 'psychological impairment'?

The following opinion is based on Mr R's psychological predisposition, his traumatic experience, his response to the trauma, his treatment and his psychometric assessment results. Mr R was a person who was vulnerable to stressful situations and was
unlikely to deal effectively with conflict. His past history showed that although he did not receive serious injuries from accidents during his childhood (electrocuted by a model plane and being hit by a motor vehicle), he continued to have anxiety based psychological problems from those past events. Mr R was the victim of an extremely traumatic event when he was working as a console operator and held-up, threatened with a sawn-off shotgun, and told that he would be killed if he revealed any identity associated with the armed robber. Following the incident Mr R did not receive any counselling, and reported he experienced considerable anxiety when he saw people who resembled the robber, and anxiety associated with the workplace. He said he was unable to successfully return to work. He said he abused marijuana to a greater extent, and reported his mood changed. He said he felt less confident, more anxious, more depressed and more socially isolated. Four months after the incident, Mr R presented at a local Health Service in a highly distressed state. At the time, Mr R was diagnosed as having an acute psychotic episode in response to the armed hold-up. The psychological assessment took place some 15 months after the incident. The assessment indicated that Mr R reported experiencing significant symptoms of anxiety (tension, difficulty relaxing, feeling fatigued), and depression (sadness, loss of interest in normal activities, loss of pleasure in the things previously enjoyed), traumatic stress, and schizophrenic symptoms (that included a break down in his social interactions, problems thinking clearly, and reported psychotic experiences). Assessment of the post-traumatic stress symptoms indicated Mr R had a significant level of anxious arousal, dissociation, and impaired self-reference. These data suggest that as a consequence of the armed hold-up Mr R exhibits symptoms consistent with a diagnosis of 'post-traumatic stress disorder'.

Stage 4: Is the 'impairment' stable, or as a consequence of time and/or treatment will the condition will change?

Treatment intervention

After the initial psychological assessment, Mr R was referred to a psychologist for treatment to assist him deal more effectively with his emotions and his stress symptoms. He underwent therapy for a 6 month period.

Psychological Assessment 2

At the conclusion of that period, Mr R was again assessed. Results indicated that his anxiety and depressive symptoms had decreased in their intensity (most notably in relation to the 'affect' symptomatology), but there was little change in his PTSD symptoms. Mr R also reported a decrease in his use of marijuana and did not report further psychotic symptoms. It was concluded that the PTSD diagnosis was chronic in nature and stable.

Stage 5: Impact that the impairment has had upon the person's daily functioning

As a consequence of the armed robbery, Mr R experienced problems sleeping, socialising with friends, and maintaining an organised lifestyle. He was unable to return to work in a full-time capacity. Two years after the traumatic incident Mr R's estimated Global Assessment Functioning was approximately 55.
Stage 6: Calculation of the level of severity of the impairment upon the person's daily functioning

(a) AMA Guide Assessment

Mr R had moderate independence with his self-care abilities, requiring some assistance with hygiene, cleaning and cooking. Prior to the trauma incident he carried out these activities independently. On the measures of 'underactivity' and 'slowness' he was in the 'mild disability' range, and for the 'social withdrawal' criteria he rated in the 'moderate' range. These measures would suggest that by the criteria proposed in the AMA Guide (1995) (p294-295), that Mr R's overall level of impairment was within the 'Moderate' Impairment range i.e., the person can carry out some, but not all, useful functioning.

(b) The Victorian Model

The following ratings were obtained based on information provided by the Victorian guidelines:

Rating

1. intelligence (1)
2. thinking (3)
3. perception (3)
4. judgment (3)
5. mood (3)
6. behaviour (3)

Median rating = Median (1,3,3,3,3,3) = 3

This example was largely was based on Vignette 5 from Epstein (1999)

(c) The Proposed Model

The calculation of:

\[ \text{% Functional Impairment Loss} = \frac{[GAF_{\text{pre-morbid}} - GAF_{\text{Post accident}}] \times 100}{GAF_{\text{pre-morbid}}} \]

Substituting, \(GAF_{\text{pre-morbid}} = 80\) and \(GAF_{\text{Post accident}} = 55\) :

\[ \text{% Functional Impairment Loss} = \frac{[80 - 55] \times 100}{80} = 31.25\% \]
CASE 2 : WORK ACCIDENT MATTER

SCENARIO

Mr X is a 48 year old machinist and programmer employed at a precision tool manufacturing plant. He sustained a "sprain and strain" back injury, while twisting and lifting a heavy metal plate at work. Mr X also had a prior compensable injury which was a minor back sprain.

Stage 1 : What was the client's pre-morbid functioning level?

Mr X re-married five years ago. He has two children aged 18 and 21 from his previous marriage who live with him. His present wife has suffered with RSI for the past four years and has been involved in a protracted workers compensation claim against her current employer. She has returned to part time alternative duties, but continues to experience recurrent pain, depression and anxiety. There are no children from his second marriage. His first marriage of 17 years ended in divorce ten years previous.

Mr and Mrs X described their marriage as very successful. Mr X was very supportive to his wife, they both enjoyed a good family, social and recreational life. Neither smoked or used alcohol on a regular basis. Mr X was a keen gardener and handyman. He described himself as a very competitive sportsman; he was active in indoor cricket, soccer, squash, trail bike riding and running. He was an indoor cricket coach and a state grade indoor cricket team player for the past ten years.

Mr X left school in year 10 and undertook an apprenticeship as a machinist at a large heavy engineering company, where he worked for 20 years. He became a specialist machinist programmer holding a 1st Class Certificate from TAFE. Four years previous he was retrenched, when the company was put into receivership. When he joined the present employer he was offered an opportunity to rapidly advance within the company structure because of his proven work record and extensive specialised training. Since joining the company, he was asked to work overtime on most weeks. He was the most experienced machinist and machine programmer in the workshop of 50. He was asked to act in supervisory positions on a number of occasions and was given a verbal promise of an early promotion prior to the accident two years previous.

Mr X sustained a crushed thumb injury 7 years ago while operating a tool machine. There were no other significant injuries or illnesses reported and no history of psychiatric illness.

Assessment with the Structured Clinical Interview for DSM IV did not indicate any pre-existing life time diagnosis of a psychiatric disorder.

His estimated pre-morbid Global Assessment Functioning was 85.

Stage 2 : Does the Client have an impairment?
Description of the incident:

Mr X sustained a minor sprain and strain injury two years previous when lifting a heavy bucket. He returned to work with no time lost, but he continued to feel some "strain" in his back. He did not report these symptoms and continued to work overtime. Six months after the strain injury he sustained a further injury when he was lifting a heavy plate while twisting. He felt a "tear" and a "snap" in his lower back and an immediate severe sharp pain in his lower back. He continued to experience ongoing high pain levels during that evening and night and was unable to sleep due to pain. He has been worried about his back as he recalled hearing during the incident "something snap and tear in my spine". He was seen by his GP next morning who diagnosed a possible disc injury.

Psychological symptoms:

Mr X became increasingly upset, angry and frustrated by the treatment and compensation process during the year after the accident. He became increasingly irritable at home, withdrawn from family and friends and ceased participating in all social activities. He felt hopeless about his future career and frustrated at the negative attitude of fellow workers toward him being "on Workcover". His GP assessed him as depressed and prescribed antidepressants.

Independent medical examination two years after the accident by an Orthopaedic Surgeon and a Functional Capacity Evaluation confirmed the diagnosis of non-specific low back pain with possible L4/5 involvement. The permanent physical incapacity was assessed to be 5% to 10%. Mr X's legal representative has forwarded a medical evaluation by the Occupational Physician assessing permanent physical incapacity at 35%.

Both evaluations identified contributing factors including physical de-conditioning, postural abnormality, high opioid use and significant non-organic factors.

Psychosocial history since the incident:

Since the work accident Mr X has reported high pain levels and has been unable to undertake most home duties. He ceased his sports and club activities. At the home he ceased tending the garden, washing his car and doing simple maintenance jobs. He reported having little interest in seeing his friends and his social life was restricted to family and two close friends. Mr X appeared fatigued most days, being easily irritated and argumentative and critical of his wife. He reported being unable sleep due to his pain and found pain medication (opioid based) to be only marginally effective although he continued to use it. He has ceased most family and recreational activities, preferring bed rest or watching TV. Mr X's wife reported feeling frustrated with his mood swings, irritability, aggressiveness and lack of interest in sexual activities. She felt frustrated at not being able to help him and has threatened to leave the family home on several occasions.
Work and compensation related issues:

In the past ten months Mr X has experienced considerable workplace conflict. He has been taking legal action against his employer for "workplace harassment" by senior staff members and has accused the employer of engaging a private investigator to obtain video evidence of his activities outside of work. Mr X's lawyer has lodged a further compensation claim for stress. Industrial dispute with the employer and with Workcover included the following: Verbal harassment by supervisors and fellow workers, being videotaped by a private investigator presumably hired by the employer or Workcover, pay dispute with the employer, being told by fellow workers that the senior staff were trying to "get rid of you". As a result Mr X said he was extremely angry, upset and at times felt "depressed" and "moody".

Psychological and psychosocial assessment:

Formal psychological assessment included the following tests: 'Depression, Anxiety and Stress Scales' (DASS), 'Psychological Assessment Inventory' (PAI), 'Psychosocial Pain Inventory' (PSPI), 'Multidimensional Pain Inventory' (MPI), the 'Fear-Avoidance Beliefs Questionnaire' (FAQ), 'Roland and Morris Disability Questionnaire' (RMDQ) and the Structured Clinical Interview for DSM - IV (SCID I & II)

Results from the DASS, using Australian chronic pain patient norms indicated 'moderate' depressive and anxiety symptoms. The PAI clinical scales profile indicated significant concern with physical functioning, elevated 'affective anxiety' and a 'dominant' personality with low tolerance for change. Elevations on the 'physical depression' sub-scale highlighted possible tendency to experience depressive symptoms in physical symptoms.

The MPI suggested Mr X had significant difficulties coping with pain. And his reported pain levels interfered with his life activities significantly more than that of the chronic pain population. The level of general, household, outdoor and social activities was below that of other chronic pain patients. The high PSPI scores indicated significant psychosocial difficulties in a number of areas including pain behaviours, activity levels, spouse support, use of opioid medication and work related stressors. The FAQ indicated significant fears of re-injury with increased physical and work activity. The RMDQ indicated significant functional impairment and disability in activities of daily living.

The DSM IV diagnosis using the SCID, based on client history and clinical and psychosocial assessment data.

Axis I: Pain Disorder with psychological factors and a general medical Condition

Adjustment Disorder with mixed Depression and Anxiety.

Axis II: No diagnosis. (However evidence of an enduring personality change)
Axis III: Medical condition as described in the medical reports.

Axis IV: Psychosocial and environmental problems arising from the injury are ongoing and moderate to severe and include: (a) occupational problems, (b) problems related to the legal system, (c) economic problems, (d) discord with treatment providers and (e) problems with primary social support group.

Axis V: General Assessment of Functioning: serious impairment in social and occupational functioning.

GAF 55 (Current)

Stage 3: Is there a causal link between the 'accident' and the 'mental impairment'?

There is evidence that the work accident directly attributed the client's physical injury and its associated psychological sequelae.

Stage 4: Is the 'impairment' stable, or as a consequence of time and/or treatment will the condition will change?

Treatment intervention

Mr X was managed conservatively with bed rest, time-off work for 14 days and anti-inflammatory medication. He underwent physiotherapy and did prescribed exercises with some initial success but these were discontinued by his GP when Mr X experienced sharp pains and intense pain following these procedures. Mr X said that he again felt a "tearing" sensation in his back and he feared that further damage was occurring as a result of these manipulations. His pain levels remained high since the first month and he avoided bending twisting or participating in any home or recreational activities so as to prevent further aggravation of his pain symptoms. He experienced further aggravation following an examination two years previous by an Orthopaedic Surgeon appointed by Workcover as an Independent Medical Examiner.

The year previous he was referred to physiotherapy and he also attended chiropractic treatment without significant improvement to his mobility and pain levels. He reported gradual improvement in his pain following extensive bed rest. The following month his Rehabilitation Consultant arranged a medical clearance for a graduated return to work program. This plan was suspended by the GP following further back spasms and an increase in pain levels. Three months later he was referred to an Occupational Physician and underwent an MRI scan. The scan revealed "multilevel degenerative changes in lumbar spine with facet joint degeneration somewhat in excess of that expected for the age and occupation". There was some evidence of disc protrusion. Mr X saw this as a vindication of his belief that his pain levels arose from "significant spine problems". The Occupational Physician assessed him as suffering with non-specific low back pain of possible discogenic origin and noted clear
evidence of non-organic signs indicating a chronic pain syndrome. Mr X underwent physical rehabilitation, returning to modified light duties of 12 hours per week. He worked as a part time process worker/sorter in the stores area. Although he was extremely unhappy at "being demoted", he has continued to work in that area since. There have been several attempts to increase his hours of work. These were not successful as he continued to experience periodic aggravation of his sprain injury, necessitating time off.

Stage 5 : Impact that the impairment has had upon the person's daily functioning

The psychological impairments are secondary to the physical injury and reflect significant psychosocial stressors in Mr X's life, arising from the accident two years previous. The stressors included ongoing and chronic work conflict, loss of future career prospects, compensation factors, medical management of the injury, pain related anxiety and beliefs as well as his personality structure. Mr X's condition is chronic, but not stable, because of the ongoing nature of the stressors. As a consequence Mr X has experienced significant impairment in all areas of his social, interpersonal, recreational and occupational life.

Mr X's estimated Global Assessment Functioning was 55.

Stage 6 : Calculation of the level of severity of the impairment upon the person's daily functioning

Treatment recommendation and prognosis:

Given the chronicity of the problem, the past treatment and rehabilitation and legal history, treatment can be expected to be extremely difficult and require considerable coordination between the treating practitioners, employer and Workcover. Psychosocial factors, particularly the work conflict, will need to be managed. He will benefit from psychological treatment which focuses on both the management of chronic pain and disability, grief and loss as well as the family situation. Mr X's medication and apparent dependence on opioid medication will need to be managed. This treatment is usually best provided in a multi-disciplinary setting, however in this case this will be a difficult given Mr X's past experiences with multi-disciplinary settings. It may be more appropriate to initially refer to a psychologist and a physician with an extensive experience in these areas and utilise a psychologist and a Physician medical practitioner to obtain Mr X's consent. Given the past, should his claim be redeemed, he will benefit from psychological treatment that focuses on both the chronic pain management and the management of the disability issues, grief and loss and the family counselling.

a. AMA Guide Assessment

According to the criteria proposed in the AMA Guide (1995) (p294-295), that Mr X's overall level of impairment was within the 'Moderate' Impairment range i.e., the person can carry out some, but not all, useful functioning.
b. Victorian Model Assessment

The following ratings were obtained based on information provided by the Victorian guidelines:

Rating

1. intelligence (1)
2. thinking (2)
3. perception (1)
4. judgement (2)
5. mood (2)
6. behaviour (2)

Median rating = Median (1,1,2,2,2,2) = 2

This example can be compared with Vignette 4 from Epstein (1999)

c. The Proposed Model

The calculation of:

% Functional Impairment Loss = \[ \text{GAF pre-morbid} - \text{GAF Post accident} \] \times 100 / \text{GAF pre-morbid} 

Substituting, GAF pre-morbid = 85 and GAF Post accident = 55:

% Functional Impairment Loss = \[ 85 - 55 \] \times 100 / 85 = 35.3%

CASE 3: MOTOR VEHICLE ACCIDENT

SCENARIO

Ms G was a 27 year-old female who was injured in a motor vehicle accident when her vehicle was sandwiched between two trucks, being trapped under the tray of the front truck and then her vehicle was dragged 50 metres until it came to a halt.

Stage 1: What was the client’s pre-morbid functioning level?

Ms G reported a happy childhood and no significant schooling difficulties. Ms G said she trained as a "Visual Artist" and reported a stable work history that included:
waitressing, working as a nanny, in a print shop and in the hospitality industry. Ms G reported she was previously injured in a motor vehicle accident 8 years previous. As a result of that accident, Ms G said she sustained a back injury, but reported she made a full recovery after approximately six months.

Estimated Pre-morbid Global Assessment Functioning (GAF) was estimated at 90.

**Stage 2: Does the Client have an impairment?**

**Physical Injuries following the accident**

As a result of the accident, Ms G sustained a number of injuries including an injury to the back and a whiplash injury. Ms G reported that since the time of the accident she has experienced the following physical symptoms: muscle weakness in the legs, neck, back, and arms; muscle twitching and spasms in the legs, neck, back, and arms; balance problems with associated difficulty walking; shakiness; frequent headaches and sleep difficulties.

**Psychological problems following the accident**

As a result of the accident, Ms G experienced a significant level of shock and was reported as being hysterical at times, tearful and/or aggressive at others in the days following the accident. Ms G further reported that since the time of the accident she has continued to experience the following symptoms: feelings of sadness; worry; anger and irritability; flashbacks/nightmares regarding the incident; inability to drive or travel as a passenger in a motor vehicle without significant anxiety; and loss of motivation and enthusiasm.

**Daily Living Activities Changes**

Ms G reported that such symptoms had restricted her lifestyle in areas of occupational functioning (she is presently unable to work), social functioning (can no longer enjoy social activities to the extent she did pre-trauma), familial functioning (her poor physical health impacts upon her psychological health which in turn negatively affects her relationships with her parents – with whom she resides).

Ms G also reported that she is no longer able to enjoy her pre-morbid preferred physical activities of swimming, running and bicycle riding without significant pain and discomfort nor is she able to continue with her preferred hobbies of needlepoint and sewing due to pain and fatigue associated with same.

Ms G reported that she relied upon close friends and family for support and that her moods fluctuate during the course of the day dependent upon the level of pain and other physical discomfort she might experience.

**Psychological Assessment**

The administration of psychological tests included: the Millon Clinical Multiaxial Inventory, the Personality Inventory and a DSM-IV syndrome & disorder checklist.
It was indicated that Ms G had significant ‘anxiety’, ‘depression’, ‘traumatic stress’, and ‘somatic complaint’ symptoms.

Ms G pattern of symptoms were consistent with the a DSM-IV diagnosis of a Post Traumatic Stress Disorder (309.81) and an adjustment disorder with mixed anxiety and depressed mood.

Stage 3: Is there a causal link between the 'accident' and the 'mental impairment'?  

Prior to the accident Ms G was psychologically sound individual. She had recovered from motor vehicle accident 8 years previous and was leading a happy, productive life including maintaining full-time employment, a romantic relationship (with normal sex life), sound friendships and overall good physical and psychological health. Following the motor vehicle accident Ms G has been significantly affected both physically and psychologically.

Stage 4: Is the ‘impairment’ stable, or as a consequence of time and/or treatment will the condition change?

Treatment received following the accident

Ms G reported that since the accident she has been undertaking regular acupuncture, hydrotherapy and physiotherapy. Ms G also reported that she was prescribed analgesic medications on a regular basis and prescriptive muscle relaxants as required but always within recommended guidelines.

Given that 16 months had elapsed since the trauma and Ms G’s symptoms (physical and psychological) have shown little improvement, it would appear her condition has stabilised. Whilst Ms G remains pro-active in terms of wishing to improve all aspects of her health, she has become resigned to the fact that her new limitations are all if not but set.

Stage 5: Impact that the impairment has had upon the client’s daily functioning

Ms G reported that since the accident she was unable to work or support herself. She had become dependent upon her parents and more socially isolated due to pain and disinterest. She has no romantic relationship, suffers pain, headache, psychological difficulties. Her GAF score was estimated to be 55.

Stage 6: Calculation of the level of severity of the impairment upon the client’s daily functioning

(a) AMA Guide Assessment

In relation to activities of daily living; social functioning, concentration, persistence and pace; and deterioration or decompensation in work or worklike settings, Ms G exhibits considerable deterioration and loss of functioning. Her level of impairment may be estimated to be within the ‘moderate’ range. i.e., the person can carry out some, but not all useful functioning.
(b) Victorian Model

The following ratings for Ms S’s levels of impairment are calculated from the Clinical Guidelines to the Rating of Psychiatric Impairment, Victoria, October 1997.

intelligence 1
Thinking 2
Perception 2
Judgement 2
Mood 3
Behaviour 3

Median rating: of measures 1,2,2,2,3,3 = 2

(c) The Proposed Model

\[ \text{% Functional Impairment Loss} = \left( \frac{\text{GAF pre-morbid} - \text{GAF Post accident}}{\text{GAF pre-morbid}} \right) \times 100 \]

Substituting: GAF pre-morbid = 90 & GAF Post accident = 55

% functional impairment loss = \( \frac{(90 - 55)}{90} \times 100 = 38.9 \%

CASE 4: WORK RELATED ACCIDENT

SCENARIO

Ms S was a 25 year old Police Constable who was assaulted by an 18 year old female while attempting to arrest the offender in relation to a house break offence. Ms S reported that she struggled with the offender for around 15 minutes, during which time Ms S was battered with a lump of wood, bitten, scratched, and spat upon. After the offender was taken into custody, Ms S was treated at the local hospital for bruising, tissue swelling and lacerations. She returned to work initially undertaking ‘light duties’. Four months after the incident she was verbally abused by a female friend of the offender who had been arrested on another matter. Ms S reacted to the verbal abuse and after consultation with her general practitioner, was placed on a month’s stress leave. She reported becoming highly anxious, experiencing intense fear and frequent reliving of the assault. Despite returning to work on ‘restricted duties’, Ms S’s symptoms had not improved after 6 months. She was fearful of entering the police station, had disturbed sleep pattern, frequent nightmares, was frightened when alone and reported finding it difficult to mix socially.

Stage 1: What was the client's pre-morbid functioning level?
Ms S reported she grew up in a violent household where her father regularly beat her mother while the children hid. She said she had always wanted to join the police force where she could protect people from harm and joined after leaving school.

She said that prior to the incident she was in a supportive relationship, and that her partner of two years was also a member of the Police. She said she was popular at work and had an active social life with many friends. She said she had regular contact with her mother and father who were separated and said she saw a lot of her siblings, nieces and nephews.

Ms S said that prior to the incident she had experienced several traumatic episodes in her work. Two years prior to the incident Ms S attended a brawl and was karate-kicked a distance of 3 metres by one of the offenders. She said she spent 2 days in hospital with internal bleeding and had distressing nightmares for several nights when she would awaken thinking she could hear his voice. One year later, in the course of her duties she witnessed the drowning of a young man. She said that she had felt distressed by her inability to help him. She said that neither incident had impacted on her enjoyment or the effectiveness of her work. She stated that she had never experienced fear in exercising her duties and had many friends in the force. She had always looked forward to going to work and loved her job. All job performance reports from her superiors were positive.

From Ms S’s self-report and from information provided by her employer, it was estimated her premorbid GAF was 87.

Stage 2: Does the client have an impairment?

As part of her normal policing duties Ms S attended a call out in relation to a house break. When Ms S attempted to restrain an 18 year old female offender, she was attacked by the offender with a large lump of wood. She reported that she struggled with the offender for a prolonged period of time. Ms S said she screamed for help, but had no response for about 15 minutes. During the period of attempting to restrain the offender Ms S said she was bitten, scratched, beaten and spat upon. She said that when assistance came the offender was taken into custody. Ms S said she "broke down" after the incident and was taken to hospital. She was treated for injuries to her right arm, bruising, swelling and scratches. Four months after the incident she was verbally abused by a female friend of the offender who had been arrested on another matter. Ms S reacted to the verbal abuse and, after consultation with her general practitioner, was placed on a month’s stress leave. Ms S said that following the verbal abuse she stopped enjoying her work and became increasingly stressed. She said she lost her appetite, her sleep became disturbed, she was unable to stay at home by herself, and experienced intense fear and frequent reliving of the trauma. Her symptoms did not improve and after a further six weeks and her general practitioner then referred her to a psychologist.
Psychological assessment

Ms S indicated that during the assault she felt helpless and was afraid of being seriously injured. She stated that following the assault she experienced dissociation, intrusive, upsetting memories of the trauma, attempts to avoid thoughts, feelings or talking about the incident and avoidance of a person who reminded her of being attacked. She said she had been sleeping poorly and experiencing fear of being attacked especially when alone. Her concentration was poor and she was jumpy and irritable. She said she had uncharacteristically lost her temper and screamed at clients at work. She said that she had "never not enjoyed work", but now she felt disinterested and apathetic. She said she felt very guilty about this.

Psychometric measures were administered that included a structured interview (re-Post-traumatic Stress Disorder) (Davidson et al 1989), the Multidimensional Anxiety Questionnaire (Reynolds, 1998), the Butcher Treatment Planning Inventory (Butcher 1998) and the Hamilton Rating Scale for Depression (Hamilton, 1960).

The Davidson interview indicated that her symptoms at assessment fulfilled the DSM-IV criteria for Post Traumatic Stress Disorder (309.81).

The Multidimensional Anxiety Questionnaire, a self-report measure which addresses the multifaceted nature of anxiety, indicated that Ms S was within the range of 'severe clinical severity' in the ‘Worry-Fears’ scale and within the ‘moderate clinical severity’ range on the ‘Negative Affectivity’ scale. Her score on ‘Social Phobia’ scale was in the ‘mild clinical’ range and on ‘Physiological Panic’ scale was not clinically significant. This pattern of results indicated that Ms S had specific fears that intruded on her daily life and constantly felt anxious.

The Butcher Treatment Planning Inventory is an empirically developed and validated personality assessment instrument that examines factors related to the individual’s attitudes toward treatment and personality factors involved in relationship formation and motivation. The measure indicated that Ms S’s responses were consistent and that she was a person who was oriented towards helping others. It also indicated symptoms of a depressed mood, anger control problems and a moderate level of anxiety.

The Hamilton Rating Scale for Depression indicated that Ms S reported symptoms of depression within the ‘moderate’ range.

It was concluded that Ms S had an impairment, consistent with a Post Traumatic Stress Disorder

Stage 3: Is there a causal link between the 'accident' and the 'mental impairment'?
Ms S’s mental impairment (post-traumatic stress disorder) appears directly related the incident that occurred when she attempted to arrest an 18 year old female following a house break. The event that occurred four months after the incident where a friend of the offender verbally abused Ms S at the Police Station appears to have exacerbated the symptoms.

Stage 4: Is the ‘impairment’ stable, or as a consequence of time and/or treatment will the condition will change?

Before the incident it was indicated that Ms S was a competent and effective Police Officer. She stated that she loved her work and looked forward to going to work every day. Her employer reported that she was very popular with her peers and an excellent officer.

As a result of the incident involving the arrest of an 18 year old aggressive female offender it is indicated that Ms S sustained physical injuries and symptoms of a PTSD.

Four months after the incident Ms S was verbally abused at the Police Station, the consequence of which, exacerbated the symptoms.

At the time of the assessment Ms S had not received any formal treatment for her condition, and her symptoms appeared stable and significant.

With psychological treatment it is possible that Ms S’s PTSD symptoms may improve. Against this optimistic perspective, Ms S’s appears to have a relatively vulnerable personality and may experience difficulties if her work environment is not sympathetic to her condition.

Stage 5: Impact that the impairment has had upon the person's daily functioning

At the time of the assessment Ms S was on ‘restricted duties’ and stated that although she wanted to get back to full active duties, she has lost considerable enthusiasm. She stated she felt let down by her colleagues who, she believed, had belittled her since she has taken stress leave. She said she felt anxious at the thought of attending any violent disturbance.

While Ms S was physically capable of taking care of herself, her PTSD symptoms had affected many aspects of her activities of daily living. She had reduced her social contact and was becoming reclusive.

Ms S’s current Global Assessment of Functioning (GAF) was estimated at approximately 55.

Stage 6: Calculation of the level of severity of the impairment upon the person's daily functioning
(a) AMA Guide Assessment

In her activities of daily living, Ms S reported sleep disturbance, a loss of libido, and inability
to perform active police duties. She was frightened when alone in and her social functioning had deteriorated markedly. She withdrew from most social activities, including her former frequent contact with friends and her parents, siblings and their children. She reported being irritated more easily and had problems controlling her anger.

Her concentration, persistence and pace was mildly impaired and she tended to de-compensate at work when faced with stressful situations.

Her level of impairment may be estimated to be within the ‘moderate’ range. i.e. the person can carry out some, but not all useful functioning.

(b) Victorian Model

The following ratings for Ms S’s levels of impairment are calculated from the Clinical Guidelines to the Rating of Psychiatric Impairment, Victoria, October 1997.

- intelligence 1
- Thinking 2
- Perception 2
- Judgement 1
- Mood 3
- Behaviour 2

Median rating: of measures 1,1,2,2,2,3 = 2

c. The Proposed Model

\[
\% \text{ Functional Impairment Loss} = \left( \frac{\text{GAF}_{\text{pre-morbid}} - \text{GAF}_{\text{Post accident}}}{\text{GAF}_{\text{pre-morbid}}} \right) \times 100
\]

Substituting: \(\text{GAF}_{\text{pre-morbid}} = 87\) & \(\text{GAF}_{\text{Post accident}} = 55\)

\[
\% \text{ Functional impairment loss} = \left( \frac{87 - 55}{87} \right) \times 100 = 36.8\%
\]
5.2 SUMMARY OF CASE STUDY IMPAIRMENT MEASURES

Each of the cases considered have similarities in relation to the type of psychological impairment that was determined from the assessment whether it occurred in the context of criminal behaviour, a work situation or a motor vehicle accident.

The table below indicates a summary of the respective case study variables and the calculated level of functional impairment according to the three approaches.

<table>
<thead>
<tr>
<th>CASE</th>
<th>Type</th>
<th>GAF pre</th>
<th>Impairment</th>
<th>GAF post</th>
<th>AMA Guide</th>
<th>Vic Method</th>
<th>Proposed Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Crim Injuries</td>
<td>80</td>
<td>PTSD</td>
<td>55</td>
<td>Moderate</td>
<td>3</td>
<td>31.3%</td>
</tr>
<tr>
<td>2</td>
<td>Work Injuries</td>
<td>85</td>
<td>Pain disorder</td>
<td>55</td>
<td>Moderate</td>
<td>2</td>
<td>35.3%</td>
</tr>
<tr>
<td>3</td>
<td>MVA</td>
<td>90</td>
<td>PTSD</td>
<td>55</td>
<td>Moderate</td>
<td>2</td>
<td>38.9%</td>
</tr>
<tr>
<td>4</td>
<td>Work Injuries</td>
<td>87</td>
<td>PTSD</td>
<td>55</td>
<td>Moderate</td>
<td>2</td>
<td>36.8%</td>
</tr>
</tbody>
</table>

All cases were potentially life threatening and the overall impact that each case’s impairment had upon the individual’s global functioning was assessed as quantitatively equivalent. The AMA Guide showed minimal discrimination between the various cases in regard to the impact of the incident upon the person. The Victorian method similarly showed limited differentiation with only one case (case 1) ranked differently. The proposed model distinguished quantitatively between the respective cases largely because it took into account the individual’s pre-morbid condition. It is argued in this paper that such an approach is most appropriate.

In conclusion, it is anticipated that both psychologists and psychiatrists can work within such a framework and their respective professional skills complement one another in obtaining a more accurate assessment outcome.