School of Occupational Therapy and Social Work
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Evidence-based Evaluation of Programme Interventions to Achieve Positive Community Integration Outcomes for Adults with Acquired Brain Injury

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DECLARATION

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgment has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

Signature: ………………………………………….

Date: ………………………...

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ABSTRACT

Background

The growing population of people with acquired brain injury (ABI) requires a strong focus on clients to be integrated into the community in order to use their productive skills in society, to help them live with greater independence, and to reduce community expenditure. To date, there is limited theoretical and conceptual development of frameworks documenting the factors influencing community integration as it applies to adults with acquired brain injury. Furthermore, although there is considerable attention paid to community integration as a desired outcome, there exists no evidence-based framework explaining characteristic of successful community interventions for people with acquired brain injury. In addition, fidelity of ABI interventions is not considered in the literature against an evidence-based framework.

Objectives

This study was completed in three phases aiming (1) to develop a framework for community integration for adults with post acute ABI; (2) to investigate characteristics of successful community integration programmes in order to develop an instrument to evaluate fidelity of community integration program for adults with ABI; and (3) to field test the instrument to (a) identify implementation issues; (b) explore the relationship between the themes and attributes across the three services; and (c) establish some aspects of the psychometric properties of the instrument.

Methodology and Results

The first phase of the study aimed to obtain a framework to define community integration for adults with ABI. The Participant Groups included six researchers, seven health professionals, six policy makers, eight people with ABI and ten family members. Following a pilot study which examined understandability of the documentation and terms used in the study, the Policy Delphi survey method (Hasson, Keeney, & McKenna, 2000; Turoff, 2002; 1995) was applied which included three steps. Each step of the study began with a survey or a semi-structured interview. The data were analysed and the results were used in the next step. At the end of the first phase of the study, a framework to identify community integration for adults with ABI was developed. A broad literature review confirmed its themes. The community integration framework (CIF) included seven community integration themes and descriptors. The themes consisted of Relationships, Acceptance, Community access, Occupation, Being at home, Picking up life again, and Heightened risks and vulnerability.

In the second phase of the study, a multi attribute utility (MAU) technique was applied (Camasso & Dick, 1993; Huber, 1974; Lewis, Johnson, & Scholl, 2003). The CIF which resulted from the first phase was used in this phase as a basis to identify the characteristics of programmes that contributed to the achievement of community integration for adults with ABI. This part of the study was completed using four stages. In each stage, surveys or semi-structured interviews were used to gather the participants' opinions on the characteristics of a successful community integration programme. Analysis of the results of each stage informed the next stage.

In the first stage of the second phase the data (descriptors of community integration programmes) were categorised into seven clusters and 26 sub-clusters. In the second stage, the Participant Groups reviewed and examined the importance of the programme characteristics using a Likert Scale. This stage resulted in determining the priority weights of the items. In the third stage, an Expert Panel reviewed the results during a day-long working group. The Expert Panel including 10 people as a sub-group of the participant groups modified the themes, their descriptors and attributes, and then identified indicators for the attributes as the programme characteristics for community integration for people with ABI. The themes, their descriptors and attributes were compared with ABI outcome measures currently available in the literature.

During the fourth stage, the themes and attributes were sent to the Participant Groups and the Expert panel to finally confirm and determine the relative importance of each theme and attribute. This was the final stage in the development of the programme assessment of community integration attributes (PACIA) which included seven themes and 21 attributes. The themes consisted of Person centred approaches and planning, Relationships, Working together, Development of skills, Community based practices, Support for service users, and Service setting and atmosphere. Each attribute was further defined with indicators. Sources of evidence were identified to enable attributes to be rated.

The third phase of the study included a field study of PACIA, an examination of possible implementation issues with the tool, and an evaluation of some specific psychometric properties of PACIA. The field study aimed to examine the effectiveness of the evaluation process, and investigate the relationship between the themes and attributes across the three services.

A trained evaluation team first individually rated each service by PACIA through observation, reading the documents, and interviews with the staff, service users, and families. A conciliation meeting followed to achieve consensus on the service ratings. The three services achieved a range of scores on the PACIA themes and attributes based on their different qualities. This phase also explored the ease of use and issues in the implementation of the instrument based on the raters' feedback, and examined inter-rater reliability, face validity, and content validity of PACIA. Within the limitations of the field test method, the study indicated that PACIA is a valid and reliable instrument to evaluate community integration programmes.

Conclusion

Integration or re-integration into the community is a vital social objective for people with ABI for whom intensive medical rehabilitation may be followed by an uncertain pathway of longer-term rehabilitation. This study developed an evidence-based community integration framework (CIF) to describe community integration for adults with ABI. The research method surveyed a wide group of key stakeholders whose views formed the basis of the framework. The framework may be useful as a basis for making policy decisions to enhance community inclusion. The CIF provides an agreed description of a theory or model upon which the characteristics of programmes aimed to facilitate community integration were identified and the fidelity of those programmes were assessed. The other result of this study was the development of a fidelity instrument named as Programme Assessment of Community Integration Attributes (PACIA). While there are obviously additional characteristics of PACIA that remain to be researched, this evidence-based instrument appears to be valid and reliable to test the fidelity of community integration programmes. Community integration programmes can be evaluated more comprehensively by PACIA than has been the position in the past. Such an evaluation instrument may help existing programmes re-focus to provide more efficient services for people with ABI.

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LIST OF ABBREVIATIONS AND ACRONYMS

ABS	Australian Bureau of Statistics
ABI	Acquired Brain Injury
AIHW	Australian Institute of Health and Welfare
BCRS	Barrier to Community Integration Scale
BICRO-39	Brain Injury Community Rehabilitation Outcome scales
CHART	Craig Handicap Assessment and Reporting Technique
CIM	Community Integration Measure
CIF	Community Integration Framework
CIPQ	Community Integration Programme Questionnaire (CIPQ)
CIQ	Community Integration Questionnaire
CVR	Content Validity Ratio
DALYs	Disability Adjusted Life Years
DRS	Disability Rating Scale
DSC	Disability Services Commission (Western Australia)
EFS	Employment Fidelity Scale
FIM	Functional Independence Measure
ICC	Intra-class Correlation Coefficient
ICF	International Classification of Functioning, Disability and Health
MAU	Multi Attribute Utility
NGO	Non-Government Organisation
PACIA	Program Assessment of Community Integration Attributes
RCT	Randomized Controlled Trial
RNLI	Reintegration to Normal Living Index
SRV	Social Role Valorisation

SEFS	Supported Employment Fidelity Scale
SPRS	Sydney Psychosocial Reintegration Scale
TAFE	Technical and Future Education
WHO	World Health Organization
YLDs	Years of Healthy Life Lost due to Disability

Chapter 1: Introduction

This chapter consists of brief background information about community integration to address the significance of the study. This is followed by an overview of the thesis structure, the project methodology, ethics and how the participants of the study were selected.

1.1 Statement of the Purposes and Significance of the Study

Acquired brain injury (ABI) is defined as “injury to the brain which results in deterioration in cognitive, physical, emotional, or independent functioning” (Australian Institute of Health and Welfare, 2009, p.8) . The number of people with disability in Australia including people with ABI has doubled to about 3.9 million during the years 1981 to 2003. Australian figures showed that around 113,300 people (0.6% of the population) were living with an ABI-related condition in 2003 (Australian Bureau of Statistics, 2003). It is evident that this number is growing because of high incidence of accidents, stroke, infection, alcohol and other drug abuse and degenerative neurological disease which are, in turn, common causes of ABI (Brain Injury Australia, 2009a).

The impact of ABI is multi dimensional. ABI affects the individuals, their family and their community both directly and indirectly. The physical, sensory, cognitive and psychosocial/emotional impairment or a combination of them as a result of ABI, affects the everyday lives of people with ABI (Umphred, 2007). The affected area of the brain, severity and the nature of the injury determine the level of activity limitation and participation restriction the person experiences (Umphred, 2007). There is strong evidence that ABI has long-lasting consequences for the family members (Australian Institute of Health and Welfare, 2000; Cummins, 2001). One third of family members, who act as caregivers, demonstrate depression, anxiety and adjustment disorders (Kreutzer, Gervasio, & Camplair, 1994; Marsh, Kersel, Havill, & Sleigh, 2002). The caregiver burden is associated with severity of ABI and increases over time (Albert, Im, Brenner, Smith, & Waxman, 2002; Livingston, Brooks, & Bond, 1985). There is a strong relationship between cognitive, behavioural and emotional changes in the person with ABI and the mood problems in the caregivers and relatives (Verhaeghe, Defloor, & Grypdonck, 2005). As a result of some consequences of ABI such as high levels of unemployment, medical expenses, and the variety of health care needs, the economic burden of people with ABI on the society is also quite substantial (McCabe et al., 2007). Returning people with ABI to the community is their human right and helps decrease the individual, social, and economic burden of the condition (Carling, 1995; United Nations General Assembly, 2006).

Community integration is the ultimate objective of rehabilitation for people with ABI (Gordon, Brown, Bergman, & Shields, 2006). Although describing and defining community integration has been the objective of many studies, there is no clear consensus on the meaning of successful community integration to accommodate the process of returning people with ABI to the community (Minnes, Buell, Feldman, McColl, & McCreary, 2002; Minnes et al., 2003). The dimensions of community integration for ABI has a wide spectrum with physical presence as the most important indicator (Salzer, 2006; Wong & Solomon, 2002) to full independence and involvement in the community physically, socially and psychologically (Wong & Solomon, 2002). Review of literature shows that diverse operational definitions have been used for systematic reviews (Geurtsen, Heugten, Martina, & Geurts, 2010; McCabe et al., 2007; Reistetter & Beatriz, 2005; Salter, Foley, Jutai, Bayley, & Teasell, 2008), designing outcome measures and defining the main objectives of community integration programmes. When designing community integration programmes, the definition is commonly narrowed down to a single or few aspects of community integration such as driving or vocational rehabilitation (McCabe et al., 2007). In addition, there is evidence that some community integration measures relate negatively to one another (Minnes et al., 2003). Recent literature emphasises that the lack of an agreed definition is a barrier for further advance of understanding community integration (Yasui & Berven, 2009). The existing diversity in definitions of community integration may reflect the variety of inclusion criteria for participants in the studies which aimed to define community integration.

Programme fidelity, which is the extent to which a programme is based on its underpinning theory and principles (Mowbray, Holter, Teague, & Bybee, 2003), is relevant for improving the significance of the evaluation of services, treatment effectiveness research, and enhancing the administration of services (Dane & Schneider, 1998; Mowbray et al., 2003; Salyers et al., 2003). The literature review for this research did not identify any evidence-based instruments to evaluate the fidelity of community integration programmes for people with ABI. The existing measures for community integration programmes are focused on the outcomes. Therefore, there is need for evidence whether the programmes which are aiming to facilitate community integration for people with ABI are based on a well-researched community integration framework. This is a further gap in the literature. Evaluation of the fidelity of a programme provides necessary evidence of how a programme is delivered and a basis for relating programme processes to outcomes.

1.2 **Overview of the Project Methodology**

The objectives of this study were (1) to develop a framework for defining and describing community integration for adults with ABI; (2) to investigate characteristics of successful community integration programmes in order to develop an instrument to evaluate fidelity of community integration programmes for adults with ABI; and (3) to field test the instrument to (3a) identify implementation issues; (3b) explore the relationship between the themes and attributes across three programmes; and (3c) establish some aspects of psychometric properties of the instrument. These objectives were addressed through three phases.

A descriptive design was applied in the study through a mixed qualitative and quantitative methodology (Patton, 2002) with specific methods used for each phase. Maximum variation of purposeful sampling (Patton, 2002) was used to achieve a broader perspective. To ensure a broad view, Participant Groups were chosen from a wide range of experts in brain injury. The Participant Groups included researchers, practitioners, policymakers, people with ABI and their families.

1.2.1 **Phase 1: Defining and describing a community integration framework for adults with ABI.**

The first phase of the study used a Policy Delphi Survey method (Hasson et al., 2000; Turoff, 2002; Turoff & Hiltz, 1995) to develop a framework for describing community integration for adults with ABI (Objective 1). After each stage of the Policy Delphi Survey, the data were analysed and the results were incorporated into the next survey to be sent to the Participant Groups. This iterative process was finalised after three stages. The results of the surveys were then compared with the literature.

1.2.2 Phase 2: An instrument to evaluate the fidelity of community integration programmes for adults with ABI.

The second phase of study employed a Multi Attribute Utility (MAU) method (Camasso & Dick, 1993; Lewis, Johnson, & Scholl, 2003) to identify the characteristics of programmes that contribute to achievement of community integration for adults with ABI. The information was analysed and classified into themes and attributes. The final product of this phase was an instrument for evaluation of the fidelity of community integration programmes for adults with ABI (Objective 2). The instrument was named as Programme Assessment of Community Integration Attributes (PACIA), a tool to appraise community integration programmes for adults with ABI. It included seven themes and 21 attributes which were confirmed by stakeholders who participated in the research, and the literature.

1.2.3 Phase 3: Field test of Programme Assessment of Community Integration Attributes.

In the third phase, a field study of PACIA was conducted in evaluations of three programmes for adults with ABI (Objective 3). The field study examined the effectiveness of the evaluation process, explored the ease of use and issues in the implementation of the instrument (Objective 3a), investigated the relationship between the themes and attributes across the three services (Objective 3b), and examined some issues of PACIA validity and reliability (Objective 3c).

1.3 Overview of the Thesis Structure

This thesis is organised in six chapters. The first two chapters are the introduction and literature review. Chapters 3 to 5 represent the three linked phases of the study. The framework to define community integration for adults with ABI is presented in Chapter 3. In Chapter 4, the development of an instrument to evaluate the fidelity of community integration programmes for adults with ABI is described. Chapter 5 reports on a field test of the instrument. Each of these chapters (3, 4 and 5) include methodology, result and discussion. Chapter 6 provides an overview, discussion and conclusion of the results of the study.

1.4 Ethics

This study was approved by the Curtin University Human Research Ethics Committee (Approval Number HR 61/2007). The information sheets and consent forms (Appendix A) were sent to the participants at the beginning of the study. The information sheet included information about the aim of the research, research process, what the research participants would be asked to do, how the private information and data collected during the study would be protected, and the researcher’s contact address. Through the consent form the participants acknowledged that they understood the project sequence, were interested in participating in the entire project, knew that they were at liberty to ask questions and to withdraw from the study without any consequences, and agreed that their anonymous data could be used in publications resulting from this study. The interviewees were also informed that all of the interviews would be recorded and transcribed for further analysis.

Confidentiality of data was maintained at all times. To allow the collection of individual data sets at the three phases, participants were allocated an identification number with corresponding names being maintained by the researcher in a locked filing cabinet separate from the data set. The privacy of responses was assured at all times. The organisations were provided with a summary of findings at the completion of this study. At no time could the individuals be identified in the reporting of data. In accordance with Curtin University Policies (Section 3.1 of the Code of Conduct for the Responsible Practice of Research), data collected for this study will be securely stored for a period of five years at the University’s Centre for Research into Disability and Society.

1.5 Project participants: Reference Group, Expert Panel, and Participant Groups

Throughout this project, a Reference Group, an Expert Panel and five Participant Groups were used. The Reference Group provided advice to help manage, support, and give feedback to the researchers about the process of the project and introduced Participant Groups. The Reference Group included nine people who were experts in brain injury including the project supervisor, the main researcher, and managers of target organisations which were to be consumers of the results of the project. Apart from the project supervisor and the main researcher, the Reference Group was also involved in all phases of the study as members of the Participant Groups.

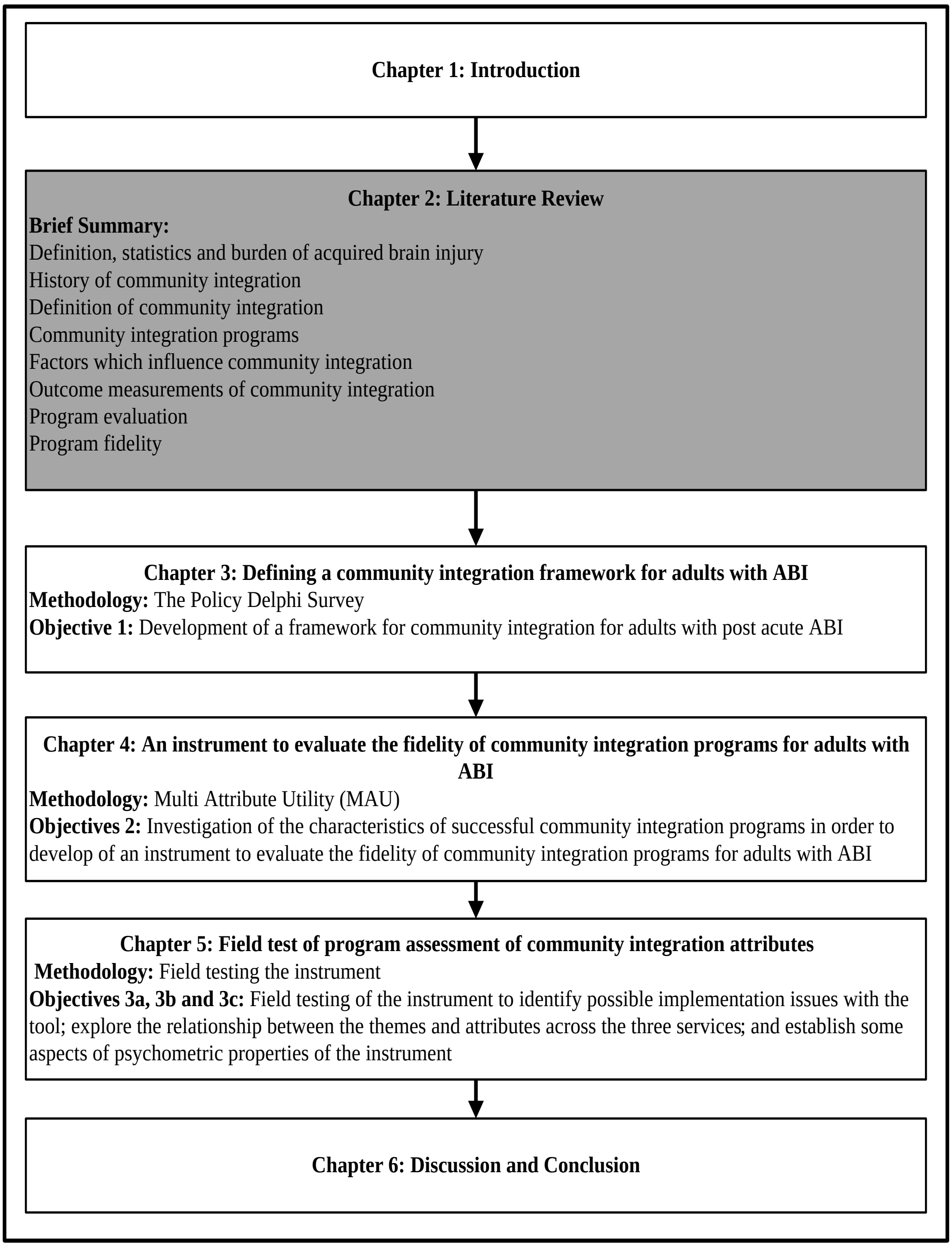
The Expert Panel included 10 people as a sub-group of the Participant Groups to finally confirm the identified characteristics of programmes to achieve community integration for adults with ABI. The panel included policy makers, researchers, practitioners and members of families of people with ABI (two from each group) who were living in Perth, WA, and the study supervisor and researcher. Because of the complexity of the tasks, people with ABI were not included directly on the Expert Panel; however, they were consulted during the semi-structured interviews. The Expert Panel attended a one day working meeting during the second phase of the study (Section 4.4).

Maximum variation of purposeful sampling (Patton, 2002) was used to achieve a broader perspective in selection of the members of the Participant Groups. Five different groups of stakeholders were approached to participate in the study. The Participant Groups included:

- National or local researchers published in community integration for ABI;
- Key staff with expertise who had at least five years experience working within the area;
- Policy experts recommended by the Western Australia Disability Services Commission (DSC);
- Adults, 19 years of age or older, with post acute ABI, selected from people who had received services from an ABI programme; and
- People who lived with individuals with post acute ABI (partner, carer, or family member).

Thirty five national/local authors or researchers who had publications in community integration for people with ABI were found or introduced by the Reference Group. The researchers were categorised into three groups: with less than five publications, with five to nine publications, and with ten or more publications. Only the researchers in the last two categories were selected to be approached. The rest of the potential participants in the study consisted of health professionals, policy makers, people with ABI, and family members were introduced by the Reference Group. The potential participants who were approached by the researcher included 24 researchers, 11 health professionals, 10 policy makers, 14 people with ABI and 12 family members. They were contacted, and the information sheet and consent form were sent to them. The potential Participant Groups members who completed the consent form were included in all phases of the study. Thirty seven out of 71 people responded to the request and completed the consent form. They included 20 (54%) males and 17 (46%) females consisting of six researchers, seven health professionals, six policy makers, eight people with ABI and ten family members. The health professionals included one social worker, two occupational therapists, one physiotherapist, one speech pathologist, one nurse and one psychologist. Two of the health professionals were working in the private sector and the remaining were located in the public sector. Thirty three participants were from Western Australia and four participants were researchers located in other states of Australia. These people were approached during all stages of the study and no one was excluded from the study as a result of missing any stage. The Participant Groups participated across whole project via completing surveys or attending semi-structured interviews.

Chapter 2:
Literature review



Chapter 1: Introduction

Chapter 2: Literature Review
Brief Summary:
Definition, statistics and burden of acquired brain injury
History of community integration
Definition of community integration
Community integration programs
Factors which influence community integration
Outcome measurements of community integration
Program evaluation
Program fidelity

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Chapter 6: Discussion and Conclusion

2.1 Introduction

This chapter provides background information needed to understand current literature on definitions, prevalence and burden of acquired brain injury (ABI). This is followed by a review of the historical development of the concept of community integration. Different definitions of community integration are compared. The literature review also includes a review of current literature on different types of community integration programmes and their effectiveness. Various factors influencing better re-integration into the community and the most common community integration measurement tools are also briefly reviewed. This is followed with a review of programme evaluation and concept of fidelity.

2.2 Definition, Statistics and Burden of Acquired Brain Injury

Acquired brain injury (ABI) is defined variously in the literature. The five most common elements of definitions are injury to the brain, occurrence before or after birth, specific cognitive symptoms, functional impairments, and duration of impairment. ABI is defined by the Australian Institute of Health and Welfare (AIHW) as “injury to the brain which results in deterioration in cognitive, physical, emotional, or independent functioning. ABI can occur as a result of trauma, hypoxia, infection, tumour, substance abuse, degenerative neurological disease or stroke. These impairments to cognitive abilities or physical functioning may be either temporary or permanent and cause partial or total disability or psychosocial maladjustment” (AIHW, 2009a, p.8). The incidence of ABI is high. The number of people with disability including people with ABI has doubled to about 3.9 million during the years 1981 to 2003 (Australian Bureau of Statistics, 2003). It is evident that the number of people with ABI is growing because of the high incidence of accidents, stroke, infection, alcohol and drug abuse, and degenerative neurological disease which are common causes of ABI. In 2003, around 113,300 people (0.6% of the population) were living with an impairment caused by ABI. Of these, 75,200 were younger than 65 years which is 0.5% of the population in that age group (Australian Bureau of Statistics, 2003). Life expectancy of those with moderate disability decreases by four years and life expectancy of people with severe disability is much lower than people without ABI (Strauss, Shavelle, DeVivo, Harrison-Felix, & Whiteneck, 2004). There is a wide range of needs for this group of people in the community. In 2008 in Australia, long term care costs for moderate traumatic brain injury (TBI) were estimated to be $300 million and $962.5 million for severe TBI (Access Economics, 2009).

ABI is a very complex condition (Umphred, 2007). The complexity of brain injury and its consequences originates from several reasons. Impairment to the brain, which is a crucial component of the main part of nervous system, may result in physical, sensory, cognitive and psychosocial/emotional disabilities or a combination of them. The impairment can be temporary or permanent, and result in partial or total disability and psychosocial maladjustment (Umphred, 2007). The severity of the brain injury may be classified based on clinical severity according to length of amnesia (e.g. using Galveston Orientation and Amnesia), level of consciousness (using Glasgow Coma Scale), mechanism of injury (i.e. penetrating versus closed head injury), and morphology (van Baalen et al., 2003). The severity usually is classified as mild, moderate and severe. The more severe the brain injury, the more complex long-term impairments that may follow (van Baalen et al., 2003). Depending on the severity and nature of the injury, the level of disability differs. The personality of the person prior to the incidence of ABI and the amount of support the person receives from other people after the incidence add to this complexity. The person's personality may change dramatically, affecting relationships with family/previous friends (Umphred, 2007). Some hidden impairments such as memory or cognitive problems, fatigue, and difficulties in decision making can be particularly challenging for individuals and their families (AIHW, 2000). Dawson and Chipman (1995) studied adults with ABI and found that approximately 90% had social integration limitation; in other words, they were disadvantaged relative to their able-bodied peers in social relationships. The social consequences of ABI are evident in the Australian context. In 2006, about 30% of people with specific activity limitations or participation restrictions who were of working age (between 18 and 64 years) were unemployed. This figure was much higher than people with no limitation (one out of 13 people) (AIHW, 2009b). As reported by Brain Injury Australia (cited in Brain Injury Australia, 2009b, p.5) participation in the workforce (employed or looking for a job) is much lower for people with ABI (36.5%) than people with disability generally (53.2%). It is reported that people with ABI have a considerably higher unemployment rate (18%) compared to people with a disability (11.5%) generally, and people without a disability (7.8%) and their main or only income source for many is governmental support (as cited in Brain Injury Australia, 2009b, p.5).

The consequences of ABI are extensive at the individual level. People with ABI often demonstrate multiple and complex treatment needs arising from physical, cognitive, emotional, and behavioural problems, that extend beyond discharge from acute, hospital based rehabilitation (Seale et al., 2002). Inadequate community support results in significant additional responsibility on their caregivers including their families (Jumisko, Lexell, & Siv Söderberg, 2007).

The consequences of ABI also constitute an increasing family, health, and social burden. There is strong evidence that ABI has long-lasting consequences for the family members (Australian Institute of Health and Welfare, 2000; Cummins, 2001). One third of family members, who act as caregivers, demonstrate depression, anxiety and adjustment disorders (Kreutzer et al., 1994; Marsh, Kersel, Havill, & Sleigh, 1998; Marsh, Kersel, Havill, & Sleigh, 1998 ; Marsh et al., 2002). The caregiver burden is associated with severity of ABI and increases over time (Albert et al., 2002; Livingston et al., 1985). There is a strong relationship between cognitive, behavioural, and emotional changes in the person with ABI and the level of stress in the caregivers and relatives (Verhaeghe et al., 2005). The wide range of types of impairments resulting from ABI creates very diverse support needs (Jennett & Bond, 1975). The total cost of traumatic brain injury in Australia was estimated to be $8.6 billion in 2008. The economic burden of people with ABI who do not return to productive life and rely on social resources is quite substantial. In Australia in 2008, Years of Healthy Life Lost due to Disability (YLDs) for traumatic brain injury were an estimated 15,703 Disability Adjusted Life Years (DALYs) (Access Economics, 2009).

2.3 **Community Integration**

People with ABI experience limitations such as cognitive, emotional, psychosocial, and physical impairments as a result of brain injury which dramatically affect different aspects of the individuals' lives (Buffington & Malec, 1997; Umphred, 2007). Returning to the community and having a productive life after brain injury is the most important rehabilitation objective (Gordon, Brown et al., 2006; Lee, McCormick, & Austin, 2001; Rosenthal & Ricker, 2000).

It is a human right to participate as a member of the community (Carling, 1995; United Nations General Assembly, 2006). 'Full and effective participation and inclusion in society', 'Respect for difference and acceptance of persons with disabilities as part of human diversity and humanity', 'Equality of opportunity' and 'Accessibility' are some of the rights that the United Nations considers as key rights of people with disabilities (United Nations General Assembly, 2006). Despite this acknowledgement, there are many young people with disability due to brain injury who live in aged care centres or other forms of institutional care. This includes people with relatively low levels of disability. A recent study (Winkler, Farnworth, & Sloan, 2006) showed that this obvious human need to live in the community is not met for many people with ABI in Australia. In Victoria on 330 young people with disability resident in nursing homes, Winkler, Farnworth, and Sloan (2006) found that living in nursing homes for these people created social isolation. About 44% never, or only once a year, received a visit from a friend, and only 24% were visited by a relative on most days. Twenty one percent of participants rarely, or not at all, went outside of their rooms. In addition, most of the activities provided in services were not appropriate for the young people and they had no interest in sharing common meal space with the older residents. For most of these people, the nursing homes are not the most appropriate place to live. This issue has been addressed by Australian Government recently. From July 2006, the Australian Government has provided funding of up to $244m for a five-year programme to provide age-appropriate care for this group of people and to move them to more appropriate settings (Council of Australian Government, 2006).

Since the early 1970s, the social and political focus to close institutions has resulted in more attention from health service providers and researchers to the concept of community integration. A strong focus on clients is needed to support them to be integrated into the community in order to use their productive skills in society, to help them live independently, and to reduce community expenditure

(World Health Organization, 1981). At the time, the concept of community integration was generally addressed as ‘physical presence’ rather than being part of the community socially and psychologically (Salzer, 2006). In 1999, community integration was acknowledged as a right for people with disabilities (Salzer, 2006; United Nations General Assembly, 2006) and many were returned from institutes to live with their family; however this movement put the burden of care on the families and other caregivers (Jumisko et al., 2007; Ohman & Soderberg, 2004). These problems commonly arose because people with ABI were returned to a community which was not suitable for their needs and was not ready to accept them (Pilisuk, 2001). Different aspects of impairments resulting from ABI pose great difficulty for families in terms of acceptance and adjustment (Marsh et al., 2002). Rejection and related problems were reported to be a source of stress which increased feelings of self-deprecation that, in turn, caused lower self-esteem in people with ABI (Kelly, Brown, Todd, & Kremer, 2008; Wright, Gronfein, & Owens, 2000). A systematic review showed that return of persons with severe disability to their family life had a negative effect on the quality of life of their family members (Cummins, 2001), loss of partnership, leisure time, and social contacts (Florian, Katz, & Lahav, 1989; Lovasik, Kerr, & Alexander, 2001).The concept of ‘returning to home’ is fundamental but not sufficient for the process of community integration.

Both deinstitutionalisation and normalisation refer to the fact that all individuals have the right to live within their communities, to achieve autonomy, have choice, freedom, dignity, and respect (Schneider, 2000; Wolfensberger, 1980). Normalisation is the “use of culturally normative means to offer persons life conditions at least as good as that of average citizens, and to as much as possible enhance or support their behaviour, appearances, experiences, status, and reputation” (Wolfensberger, 1980, p.8). Dijkers (1998) described institutionalisation and community living as two extremes of community integration. One extreme is institutionalisation where people are limited to the ‘institute’ and have no relationships with the world outside. An example for this situation is living in an institute where the person is limited as a result of a severe physical or mental impairment. The other extreme is ‘living normally in the community’. Dijkers claims that the ‘normal’ community living is not easily definable. He also adds that normal personal relationships in the community are dependent on the persons’ characteristics (e.g. age, gender, and culture) and quality and quantity of the relationships can be extremely different from one person to another.

Nirje (1994) provided a contrast between life in institutional settings and life in the community. He identified several aspects of the normalisation principle for people with intellectual disability, some of which can also be applied to all disabilities. These aspects include having a normal routine (e.g., getting out of bed in the morning), the normal rhythm of day (e.g., going to bed at an age-appropriate time), the normal rhythm of life (e.g., holidays and special family days), having personal choice, wishes, and desires respected, living in a bisexual world rather than in mono-sexual settings, having normal economic standards (e.g. having a job and income) and living in a typical home setting rather than an isolated, hospital-like setting.

The more recent concept of 'social role valorisation' (SRV) also provides rationales that promote community inclusion and participation (Lemay, 1995; Wolfensberger, 1983b). SRV focuses on the achievement of valued social roles for people who are, or are at risk of, social devaluation (Wolfensberger, 2000). Having a valued social role increases the possibility of having a good life (Wolfensberger & Thomas, 2005). One strategy to enhance social value for people with a disability and other people at value-risk, is to promote a positive image and avoid situations that reinforce negative social roles. A second strategy is to improve the person's competencies so that they can participate actively and productively in the community. These strategies can be carried out in different levels. At the personal level, for example, the development of competencies will contribute to access to valued roles. The competencies might be developed when the person participates in the family and community and has relationships with other people. Competency enhancement in family and in bigger social groups like the neighbourhood and with friends might have a significant effect on the individuals' valued social roles. Third level strategy is enhancement of general public knowledge about persons with disability which can provide opportunity for the person to find/act in valued social roles (Osburn, 2006).

Human rights, normalisation, deinstitutionalisation, and social role valorisation are all concepts that emphasise providing opportunity for all people to live and actively participate in the community.

2.4 **Definition of Community Integration**

The importance of community integration was highlighted by the World Health Organisation in its policy “Health for All by the year 2000” which was described as “all people in all countries should have at least such a level of health that they are capable of working productively and participating actively in the social life of the community in which they live” (World Health Organization, 1981). People with disabilities want to be able to participate in community activities like ordinary people without being labelled according to their disability (Hastie & Pedlar, 1993) and in a community-based setting rather than being isolated to rehabilitation settings (Mahon, Bullock, Luken, & Martens, 1996).

While the concept is not new, there is no consensus on the meaning of community integration (Minnes et al., 2002; Minnes et al., 2003). A recent broad review of literature demonstrated that despite the necessity for clarification of the nature of community integration, there is no agreed definition for the term (Yasui & Berven, 2009). Diverse operational definitions have been used for systematic reviews, designing outcome measures, and/or defining the main objectives of community integration programmes. For example, a systematic review of effectiveness of rehabilitation programmes for people with ABI defined five areas of ‘community reintegration’ as independence and social integration, caregiver burden, satisfaction with quality of life, productivity, and return to driving (McCabe et al., 2007). Another systematic review aiming to find predictors of community integration and appropriate outcome measures (Reistetter & Beatriz, 2005, p.197), considered Dijkers’ (1998) definition ‘having priorities and opportunities in the least restrictive environment’ as the operational definition of community integration for their study. In the design of community integration programmes, the definition is often narrowed down to a single, or few aspects of community integration. For example, several programmes focus on vocational rehabilitation (Buffington & Malec, 1997; Wehman, Gentry, West, & Arango-Lasprilla, 2009; Wehman et al., 1991) or return to driving (Brooks & Hawley, 2005; Hawley, 2001).

Different dimensions are identified by researchers for community integration. Review of 17 studies of persons with psychiatric disabilities living in the community concluded that most definitions are unidimensional and only considered ‘physical presence’ as the most important indicator for community integration (Wong & Solomon, 2002). Wolfensberger (1972, 1983b) suggested two dimensions, including both physical and social integration. Occupation, residential environment, social support, and overall satisfaction (Halpern, Nave, Close, & Nelson, 1986); leisure participation, family contact, and acceptance (Bruininks, Chen, Lakin, & McGrew, 1992; McGrew, Johnson, & Bruininks, 1994); and social engagements, interactions with neighbours and other members of community, and sense of belonging (Flynn & Aubry, 1999) are further examples for dimensions of community integration identified by different researchers.

The most common dimensions of community integration are relationships with others, participation in activities, and living independently. McColl (1998) considered nine indicators in four domains for community integration including general integration (orientation, conformity and acceptance); social support (close and diffuse relationships); occupation (productivity and leisure); and independent living (independence and living situation). Dijkers (1998) defined community integration as independence in decision making, productivity and relationships with a range of people. He believed that the roles of the person should be age/gender and culturally appropriate. This view was also supported by other authors (Lee et al., 2001). Willer, Rosenthal, Kreutzer, Gordon, and Rempel (1993) considered participation in home-like settings as important as engagement in social network and occupation. Some authors consider community integration as ‘living independently’. This review suggests that any research must work from a clear concept and definition of community integration given the diversity of ideas.

2.5 Community Integration Programmes

Because of wide range of ABI-related impairments, the type and amount of support that the person needs is different and complex (Wehman et al., 2009). In response to these needs, there are numerous community integration post-acute programmes aiming to help individuals who sustain ABI and their families and friends find strategies for coping with changes in lifestyle and expectations.

Community integration programmes for people with ABI aim to enable optimum levels of community integration, participation in valued roles and independent living as much as possible while decreasing the risk of psychological difficulties during the community integration process (Burke, 1995; Cope, 1995; Geurtsen et al., 2010; Willer, Ottenbacher, & Coad, 1994).

There are three models of service delivery for community integration programmes : client-centred rehabilitation (where the immediate focus is on the persons' environment and therapists work collaboratively to achieve the goals that the client determines), community based-rehabilitation (where a process of advocacy is actively involved) and independent living (where the therapist has a supportive role to help the person live independently) (McColl, 2007). These programmes vary with respect to the setting such as, urban, suburban and rural settings (Burke, Wesolowski, & Guth, 1988; Johnston, 1991), the frequency and intensity of treatment (Harrick, Krefting, Johnston, Carlson, & Minnes, 1994), the amount of time that the person spends at their employment, the nature of therapeutic interventions (e.g., proportion of individual and group therapies), extent of family involvement, training of staff and cost that may affect a client's outcome (Burke, 1995; Harrick et al., 1994). It is important to consider that community integration programmes should begin as soon as possible during the post-acute phase of ABI. There is some evidence that the longer the time the person spends in a sheltered house, or nursing home, before going back to the community, the harder it may be for the family to accept the person with disability and cope with difficulties of having a family member with high support needs (Evans, Bullard, & Solomon, 1961; M. McColl et al., 1999; Segal & Aviram, 1978).

Malec and Basford (1996) classified comprehensive rehabilitation programmes for ABI into: (1) Neurobehavioural programmes that provide intensive behavioural treatments; (2) Residential community re-integration that provide rehabilitation for those people who cannot participate in outpatient programmes because of severe cognitive and behavioural impairments; (3) Holistic day treatment programmes that provide integrated, multimodal rehabilitation; (4) Outpatient community re-entry programmes that focus on rehabilitative treatment and vocational and social reintegration; and (5) Community based services. A systematic review of the literature from 1980 to 2005 (McCabe et al., 2007) found 38 studies which evaluated different types of interventions and strategies used to enable transition from acute care or post-acute rehabilitation to the community following ABI. However, only one randomized controlled trial (RCT) was identified which matched the study criteria. The authors concluded that there is insufficient evidence for the effectiveness of the programmes. A more recent systematic review on articles published between 1990 and 2008 revealed promising results of effectiveness of comprehensive rehabilitation programmes for people with ABI (Geurtsen et al., 2010). The authors included 13 studies (randomised controlled trials, controlled comparative studies and uncontrolled longitudinal cohort studies) in their review. The results showed that these programmes led to considerable improvement in community integration in the chronic phase after severe brain injury. However, there was a large heterogeneity in the intervention characteristics (such as length of programmes) between different programmes and the inclusion/exclusion criteria of the participants in these programmes were not clearly described.

There is insufficient evidence of the long term effectiveness of community integration programmes. The existing reported studies on effectiveness of the programs have methodological weaknesses that include: small sample size (Sander, Kreutzer, Rosenthal, Delmonico, & Young, 1996), short follow-up periods (Hart, Whyte, Polansky, Kersey-Matusiak, & Fidler-Sheppard, 2005; Novack, Bush, Meythaler, & Canupp, 2001; Wagner, Hammond, Sasser, Wiercisiewski, & Norton, 2000), and retrospective study designs (Fleming, Tooth, Hassell, & Chan, 1999; Winkler, Unsworth, & Sloan, 2006) that limit their external validity. However, a recent study on 119 participants in a community integration programme over a three-year period showed significant improvement in home integration, productivity, and total scores on the Community Integration Questionnaire (CIQ). The participants were aged between 16 to 67 years and had moderate or severe brain injury. The maximal improvement was found during the first year post-injury (Willemse-van Son, Ribbers, Hop, & Stam, 2009).

In addition to programme characteristics, there are additional factors that influence community integration outcomes. McColl et al. (1999) identified that cooperation between family and programme personnel and inclusion of structured daily activity in the programme as being key elements in a residential programme for transitioning to community living. Sander et al. (2002) investigated the relationships of family functioning to the person’s progress in a rehabilitation programme after traumatic brain injury. A positive relationship was found between the scores on the Family Assessment Device (relationships between family members of the person and communication and roles) and the Disability Rating Scale. The results showed family functioning is an important variable in rehabilitation outcome.

Considerable diversity in characteristics of community integration programmes for adults present significant challenges to researchers seeking to identify vital programme components and to consumers attempting to compare programmes (Powell, Heslin, & Greenwood, 2002). These issues raise the question whether existing programmes follow community integration theory or not. Designing a program based on a sound theory is positively related with achieving the intended goals (Justice Research and Statistics Association, 2003; Rossi, Freeman, & Lipsey, 1999). More explanation on programme evaluation based on programme theory is presented in Section 2.8.

2.6 **Factors which Influence Community Integration**

Based on the International Classification of Functioning, Disability and Health (ICF), which is “a unified and standard language for description of health and health-relation conditions” (World Health Organization, 2001, p.3), the situation of each person should be explained with a range of domains of functioning, within the context of environmental and personal factors (World Health Organization, 2001). The ICF model has three components: body functions and structures, activity and participation. These components are in constant interaction with personal and environmental factors. Based on the ICF, participation outcomes are not only a result of injury–related impairments but there are dynamic interactions between the components of the ICF in both directions (World Health Organization, 2001). Therefore, factors which influence community integration can also be classified as personal and environmental.

The personal factors which might influence community integration outcomes can be divided into demographic/pre-morbid, and post-morbid factors. Research shows that demographic variables have a significant effect on community integration for people with ABI (Colantonio et al., 2004; Fleming et al., 1999; Rapoport & Feinstein, 2001; Reistetter & Beatriz, 2005; Winkler, Unsworth et al., 2006). Female gender (Fleming et al., 1999; Goranson, Graves, Allison, & La Freniere, 2003) and young people with ABI (Fleming et al., 1999) tend to re-integrate into their community better than males and older adults. Belonging to minority ethnic groups (Fleming et al., 1999; Goranson et al., 2003; Hart et al., 2005; Willemse-van Son et al., 2009), pre-morbid unemployment (Fleming et al., 1999; Winkler, Unsworth et al., 2006), having challenging behaviour before the injury (Winkler, Unsworth et al., 2006) and having low level of educational background (Dikmen et al., 1994; Kaplan, 2001; Ponsford, Draper, & Schonberger, 2008; Wagner et al., 2000) are reported as negative predictors for community integration.

Post-morbid factors are also correlated with community integration outcomes. Research indicated that the length of post traumatic amnesia was a significant predictor of community integration for people with ABI (Dawson, Levine, Schwartz, & Stuss, 2000; Doig, Fleming, & Tooth, 2001; Fleming et al., 1999; Rapoport & Feinstein, 2001). Fleming et al. (1999) identified additional post morbid factors which were related with better outcomes. Shorter length of acute stay, absence or lower level of depression, lower functional disability, good cognitive abilities, and ability to accomplish activities of daily living were predictors of higher possibility of obtaining better community integration outcomes. It seems that the more the individuals are independent in their living arrangement, the higher the possibility of successful return to the community (Fleming et al., 1999; Kaplan, 2001; Kaplan & Miner, 1997; Snead & Davis, 2002).

For people with ABI, similar to other clients with chronic conditions, an individual’s positive attitude toward his or her chronic health condition correlates with reports of less anxiety and depression, and more involvement in daily activity (McCracken, 1998). There is some evidence that better attitude toward disability and acceptance of disability by people with ABI is related to better functional ability, higher quality of life, and more successful community integration. A study of 40 people with ABI in a residential and community based rehabilitation service (Snead & Davis, 2002) explored the relationship between scores on Attitudes Towards

Persons with Disabilities Scale 0-Version, Acceptance of Disability Scale and Community Integration Questionnaire. The results demonstrated that higher scores on both the positive attitude toward disability and acceptance of disability were correlated with greater social community integration and greater overall score on community integration. Engaging in productive activities, leisure and skills development contributed positively to community integration for adults with ABI (Salzberg & Langford, 1981). Brown and Vandergoot (1998) found that there are positive relationships between engagement in part-time work and high levels of community integration. Making friends and forming relationships with non-disabled community members, within both family and neighbourhood, are powerful indicators of better community integration (Harrick et al., 1994; Karlovits & McColl, 1999; McColl et al., 1998; M. A. McColl et al., 1999; Salazar et al., 2000; Salzberg & Langford, 1981). Harrick et al. (1994), in a three year follow-up of people with severe brain injury, found that loneliness is a significant problem. People using wheelchairs or other assistive aids for mobility often had limited opportunities to fully participate within their communities due to physical obstacles such as architectural and environmental barriers (McClain, 2000; Useh, Moyo, & Munyonga, 2001). A recent systematic review (Reistetter & Beatriz, 2005) of 72 studies on predictors of community integration following the rehabilitation of people with ABI identified several predictors for community integration. The predictors consisted of severity of injury, age, gender, education, prior employment, cognitive abilities, emotional status, functional performance and disability.

Environmental factors such as productive employment, occupation, availability of community resources and transportation, and the number and type of health services predict positive community integration (Calvez, 1993; Carling, 1990; Colantonio et al., 2004; Fleming et al., 1999; Karlovits & McColl, 1999; McColl et al., 1998; M. A. McColl et al., 1999; Powell et al., 2002; Rapoport & Feinstein, 2001; Winkler, Unsworth et al., 2006). Several studies suggested that the environment was more significant than individual characteristics in predicting more successful community integration (Calvez, 1993; Carling, 1990; Kruzich, 1985). One study on people with mental illness emphasised relationships as well as rules flexibility and stability of home environment for successful supportive housing for people with mental health issues as a result of ABI (Corrigan, Bogner, Mysiw, Clinchot, & Fugate, 2001). The research showed that married people and those with acute conditions could return to their previous life more successfully than bachelors and those with long-term conditions (Shadish, Lurigio, & Lewis, 1989). As ABI might cause neuropsychological issues (Prigatono et al., 1986), the literature on mental illness has a high correspondence with ABI. A study on barriers of community integration for adults with psychiatric disorder also showed the importance of environmental factors (Lemaire & Mallik, 2005). The barriers were discovered through completing the self-report Barrier to Community Integration Scale (BCRS) in which the 25 barriers were classified into two main categories as skilled-related (e.g. vocational performance and money management) and supports and resources (e.g. employment resources and social support). The participants reported lack of community resources were greater barriers in comparison with their lack of skills for living independently.

Therefore, existing evidence reveals that both personal and environmental factors before and after the injury influence community integration for people with ABI.

2.7 **Outcome Measurement of Community Integration Programmes**

Managing health care requires accountability from organisations providing rehabilitation programmes which increases the importance of outcome measures as a means of programme evaluation (Sander et al., 1999). As described above, the measurement of community integration post injury has been the focus of a number of studies. A variety of scales have been developed to measure the degree of community integration. A review of literature on the community integration outcome measures is included in Appendix B. Examining these instruments contributes to understanding about community integration. These measurements include established scales such as the Community Integration Questionnaire (CIQ) (Willer et al., 1993) and the Craig Handicap Assessment and Reporting Technique (CHART) (Whiteneck, Charlifue, Gerhart, Overholser, & Richardson, 1992) and more recently published scales including the Sydney Psychosocial Reintegration Scale (SPRS) (Tate, Hodgkinson, Veerabangsa, & Maggiotto, 1999), the Brain Injury Community Rehabilitation Outcome scales (BICRO-39) (Powell, Beckers, & Greenwood, 1998) and the Community Integration Measure (CIM) (McColl, Davies, Carlson, Johnston,

& Minnes, 2001). Also, measures such as the Functional Independence Measure (FIM) (Linacre, Heinemann, Wright, Granger, & Hamilton, 1994), and the Disability Rating Scale (DRS) (Rappaport, Hall, Hopkins, Blelleza, & Cpoe, 1982), are sensitive to improvements in physical and cognitive status during acute rehabilitation, but such measures have limited ability to track long term changes in vocational and psychological functioning (Hall, Mann, High, Wright, & Kreutzer, 1996). Yasui and Berven (2009) referred to this gap in the literature as “the definition of community integration and the evaluation and scoring criteria that underlie the specific measures applied should be clearly stated” (p.761).

There are many different measures of community integration and each measure focuses on a limited number of aspects of community integration due to the complex impact of ABI on individuals,. For instance, the CIQ, which is the most commonly used measurement tool in community integration literature, evaluates home, social and productivity domains (Willer et al., 1993), while CHART evaluates orientation, physical independence, mobility, occupation, social integration and economic self-sufficiency (Whiteneck et al., 1992). In addition, there is evidence that some community integration measures relate negatively to one another. Assimilation, Integration , Marginalisation Segregation (AIMS) was significantly negatively correlated with scores on Community Integration Questionnaire – Revised (Minnes et al., 2003). There is a focus in the literature on programme outcomes with little consideration of the extent to which the programmes follow their underlying and/or stated principles, i.e., evaluation of the fidelity of the programme.

The only available instrument to measure characteristics (rather than outcome) of community integration programs is known as Community Integration Programme Questionnaire (CIPQ) which was designed to evaluate out-patient facility-based, residential and home based programmes for people with ABI (Glenn, Goldstein, Selleck, Rotman, & Jacob, 2006). The CIPQ has been developed to measure quantifiable characteristics of programmes including issues related to staff (e.g. degrees and roles), participants in the programmes (e.g. severity of injury, time since injury and funding resource), programme issues (e.g. time spent with family and time spent in group meetings, in the community, and in team meeting) and geography (urban, rural, suburban). The instrument is only available by request from the authors and the instrument details are not published. The instrument developers conducted a study to evaluate construct validity and inter-rater reliability of the CIPQ. Nine raters tested seven programmes in 14 settings. A research assistant collected corroborating data for each of the questions. The authors concluded that the inter-rater reliability and the construct validity of many of the questions on the CIPQ were poor. A three year effort by the author to further develop the instrument and a revision of the most problematic questions did not result in a more valid questionnaire. The need for an instrument to evaluate community integration programmes remains.

2.8 **Programme Evaluation Research**

Evaluation research is a systematic process to apply scientific methods in order to assess the design, implementation, improvement or outcomes of a programme (Rossi et al., 1999). Programme evaluation is defined as “the use of social research procedures to systemically investigate the effectiveness of social intervention programmes that is adapted to their political and organisational environments and designed to inform social action in ways that improve social conditions” (Rossi et al., 1999, p.20). Different aspects of programmes can be evaluated using various types of evaluation. Formative evaluation (examination of the early stages of development of a programme), process evaluation (examination of operation and implementation of components of a programme) and outcome evaluation (assessment of the short and long-term results of a programme) are examples of different types of evaluation of a programme (Rossi et al., 1999).

Since the 1970s, many researchers were engaged in evaluating the effectiveness and efficacy of programmes and there are systematic reviews trying to draw conclusions on the results (Geurtsen et al., 2010; McCabe et al., 2007). Programmes are designed to concentrate on particular problems. A major challenge to programme evaluation is that programmes may have vague or unspecified goals and/or they do not follow the principles/theory upon which they were claiming to be based (Hurworth, 2008). Programme theory is “a set of assumptions and expectations that constitute the logic or plan of the programme implemented as planned and provide the rationale for what the programme does and why” (Rossi et al., 1999, p.187). The likelihood of successful evaluation of a programme is higher if the programme theory is assessed thoroughly and found to be based on the intended population’s needs. A poorly designed programme which does not follow its theory might not be successful and effective even if it is well-implemented. A faulty theory or misinterpretation of the theory while designing the programme might result in a lower prospect of achieving the intended goals (Justice Research and Statistics Association, 2003; Rossi et al., 1999). In order to address these problems, programmes should be based on a sound theory or set of principles.

This problem (scarcity of literature on programmes with approved theory) also exists for literature related to community integration. While there is an increasing interest in developing measurement tools for community integration to re-focus clinicians and researchers on the theoretical foundations (McColl et al., 2001), components factors (Sander et al., 1999), and question formats (McColl et al., 2001) of such measurement tools, the degree to which each programme is based on its programme theory is rarely considered in the literature.

The prerequisite for testing a programme theory is ‘evaluability assessment’ of the programme. This assessment helps determine if a programme is well-planned and implemented. If the programme is not ‘evaluable’ then the results provide suggestions on how to improve the programme and make it evaluable (van Voorhis & Brown, 1996). Evaluability should be performed in three stages: (1) determining the programme model that conveys the mission and objectives of the programme being evaluated (2) assessment of the model to determine whether it is evaluable or not, and (3) determining if the stakeholders are interested in the results of the assessment (Milstein & Wetterhall, 1999; Rossi et al., 1999). If the conclusion of the evaluability assessment is that there is a reasonably defined programme theory, the programme theory can be assessed.

The first step of programme theory assessment is to articulate the programme theory explicitly and sufficiently to ensure that it is understandable to the stakeholders. A clear and logical description of the theory enables comparisons with similar programmes and facilitates connecting to the programme components more efficiently. If the description is not based on an agreement by the stakeholders, the usability of the theory might be limited. The evaluators, who are experts in programme evaluation and have knowledge of the issues, work collaboratively with the key stakeholders of the programme. The stakeholders include programme staff, programme consumers and managers (Milstein & Wetterhall, 1999). In order to collect credible information and draw a well-rounded picture of the programme, different data sources will be utilised, including programme documents, interviews with stakeholders and observation (Rossi et al., 1999). After analysing the findings, the information will be synthesised and formulated into a clear, feasible, and accurate theory. The theory will then be judged against the social needs and standards of the programme. A well-designed and approved programme theory can be used as a basis for further evaluation of the programme such as designing a fidelity measurement tool, outcome evaluation and process evaluation (Milstein & Wetterhall, 1999).

2.9 **Programme Fidelity**

In order to understand how a programme works and if it follows its principles, the literature suggest the use of logic models which are a systematic ways to present a programme with its underlying assumptions and theoretical framework (Julian, 1998). Research in programme evaluation has focused on the description and measurement of programme characteristics (inputs) and their relationships to results (outputs). This establishes the need for valid and reliable instruments to assess whether community integration programme processes follow their theory and principles. A useful concept when examining the ‘processes’ in a programme is fidelity (Mowbray et al., 2003).

“Fidelity is defined as the extent to which delivery of an intervention adheres to the protocol or programme model originally developed” (Mowbray et al., 2003, p.315). Fidelity measurement is necessary for improving significance for evaluation, treatment effectiveness research, and enhancing administration of services. There is evidence that validity of programmes contributes to their better outcomes (Dane & Schneider, 1998; Salyers et al., 2003). Another important advantage of fidelity measurement is predictability of outcomes when using well-established models (Paulson, Post, Herinckx, & Risser, 2002). Without consideration of the fidelity of evidence-based practices, there is no way to determine whether unsuccessful outcomes reflect a failure of a model or failure to implement the model as intended (Chen, 1990). Dosbon and Cook (1979) called this as Type III error. They explained that without fidelity, we might test the effectiveness of a ‘delivered’ intervention rather than the ‘described’ intervention.

The development of an evaluation instrument based on the concept of fidelity consists of three steps (Mowbray et al., 2003):

1. Identifying fidelity criteria

Different methods might be employed to determine the fidelity criteria: drawing from a specific programme model with demonstrable efficacy, effectiveness or acceptability; gathering opinions from experts; or conducting qualitative research aiming to collect the experiences and opinions of the programme’s users (Moncher & Prinz, 1991). Fidelity criteria include both the programme structure and process. The framework for service delivery includes some components such as programme location and physical characteristics of the settings. The delivery process of intervention should be determined as another part of fidelity criteria and include details about process and activities within the programme, qualification and role of staff, length and intensity of the programme (Kelly, Hecman, Stevenson, & Williams, 2000).

2. Development of the fidelity instrument

The most common methods to quantify fidelity are ratings by experts or by the participants in the programme. Using the documentation and/or client records can be also helpful. Observation of the site and interviewing the stakeholders who are delivering the services or those receiving them are the other common methods to collect data (Mowbray et al., 2003).

3. Assessing properties of the fidelity evaluation instrument

There are five different methods to establish validity and reliability of fidelity instruments (Mowbray et al., 2003). The first method is examining reliability of the measurement tool across respondents. Then the inter-rater agreement is calculated through percentage of agreement, Intra-class Correlation Coefficient (ICC) or Pearson Correlation Coefficient. The second method is empirically determining the internal structure of the data using cluster factor analysis or internal consistency indices like Cronbach’s alpha. Third, convergent validity, examines the agreement between two different sources of information and can be used to assess fidelity. The fourth is using the known group method during which the examiners compare fidelity scores across different types of programme when they are expected to be different. The fifth method is examining the relation between the fidelity scores and scores of the expected outcomes for participants in the programmes. The evaluators might use any of these methods based on their needs and/ or feasibility of accessing the required data (Mowbray et al., 2003).

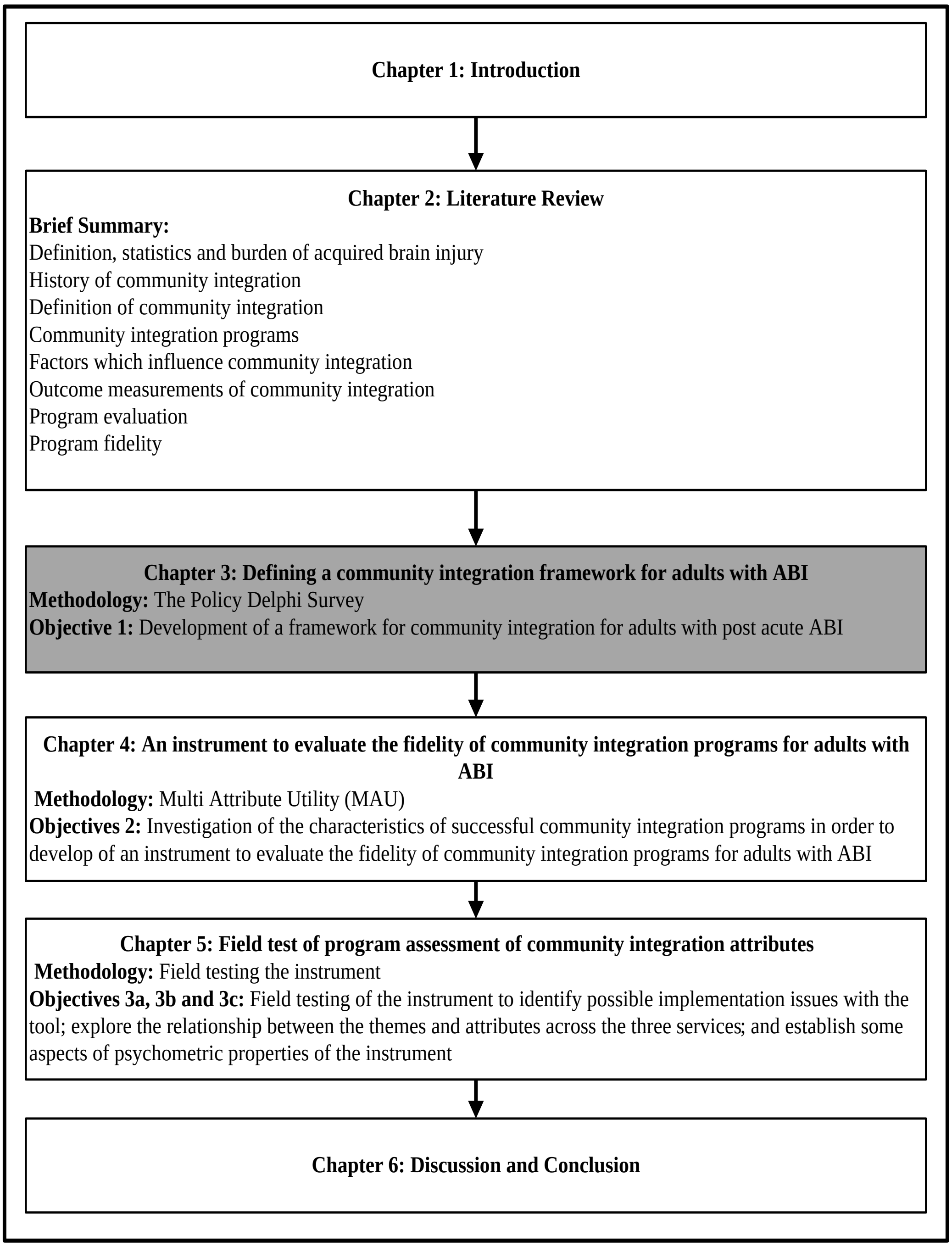
An example of how a fidelity instrument can be used to evaluate a programme is demonstrated in a recent study. Cocks and Boaden (2009) used the Supported Employment Fidelity Scale (SEFS) (Bond, Becker, Drake, & Vogler, 1997) to evaluate a specialist employment programme for people with mental illness. The SEFS, designed based on the Individual Placement and Support model, is a fidelity instrument which is used frequently in the literature (Bond et al., 1997). The 15-item instrument has been tested through a pilot study on 27 vocational programmes and was shown to have adequate levels of reliability and validity (Bond et al., 2001). During the programme evaluation (Cocks & Boaden, 2009), data were collected through review of documentation (programme policies, procedures and data collection) and interviews with staff and the programme users. From a total score of 75 on the SEFS, the programme obtained a score of 59. Based on this result, it was evident that the evaluated programme was based on person-centred and evidence based approaches. In addition, the authors used the results to make recommendations on several areas for further development of the programme (e.g. permanence of jobs developed by the programme and acceptance of people with high support needs).

2.10 **Conclusion**

As highlighted in this literature review, the prevalence of ABI is growing. Literature describes interventions that aim to improve community integration of people with ABI to decrease the burden of the condition both on the individual and community. The review of the literature indicates that community integration is a multidimensional concept and there are various factors (both personal and environmental) that are strongly correlated with the successful return to the community.

Based on programme evaluation research, in order to obtain better outcomes, programmes should be designed based on a sound theory. Misinterpretation of the theory while designing the programmes might result in little prospect of achieving the intended goals. Although there is considerable attention paid to community integration as a desired outcome, lack of a comprehensive evaluation framework appropriate to explain characteristics of successful community integration programme has hampered the progress of such interventions. Providing an inclusive definition of community integration and designing and testing an instrument to assess community integration programmes for people with ABI may help bridge the gap in the literature.

Chapter 3: Defining a Community Integration Framework for Adults with ABI



Chapter 1: Introduction

Chapter 2: Literature Review

Brief Summary:

Definition, statistics and burden of acquired brain injury
History of community integration
Definition of community integration
Community integration programs
Factors which influence community integration
Outcome measurements of community integration
Program evaluation
Program fidelity

Chapter 3: Defining a community integration framework for adults with ABI

Methodology: The Policy Delphi Survey

Objective 1: Development of a framework for community integration for adults with post acute ABI

Chapter 4: An instrument to evaluate the fidelity of community integration programs for adults with ABI

Methodology: Multi Attribute Utility (MAU)

Objectives 2: Investigation of the characteristics of successful community integration programs in order to develop of an instrument to evaluate the fidelity of community integration programs for adults with ABI

Chapter 5: Field test of program assessment of community integration attributes

Methodology: Field testing the instrument

Objectives 3a, 3b and 3c: Field testing of the instrument to identify possible implementation issues with the tool; explore the relationship between the themes and attributes across the three services; and establish some aspects of psychometric properties of the instrument

Chapter 6: Discussion and Conclusion

3.1 **Introduction**

This chapter reports on the first phase of the study which aimed to define a framework for describing community integration for adults with acquired brain injury (ABI). The framework was used in the second phase of study to identify the characteristics of programmes that contribute to achievement of community integration for adults with ABI.

A descriptive study design was applied through a mixed method in which qualitative and quantitative data were combined to gain greater understanding of definition of community integration (Patton, 2002). This phase was completed through a three stage process based on Policy Delphi methodology (Hasson et al., 2000; Turoff, 2002; Turoff & Hiltz, 1995). In developing a set of research guidelines for the use of the Delphi survey, Hasson, Keeney, and McKenna (2000) defined this survey method as “a group facilitation technique, which is an iterative, multistage process, designed to transform opinion into group consensus.” (p.1008). However, Turoff (2002) disputed that consensus is the aim, particularly for a Policy Delphi which “rests on the premise that the decision maker is not interested in having a group generate his decision; but rather, have an informed group present all the options and supporting evidence for his consideration.” (p. 80). Moreover, “Its goal is…. to expose all the different positions advocated and the principal pro and con arguments for those positions.” (p. 82). There is no dispute, however, that as a group communication process, the Policy Delphi is considered to be especially suited to consideration of complex issues such as those this study seeks to explore (Turoff, 2002). In the Policy Delphi, several questionnaires are sent to experts over stages. In each stage, the researcher reviews and collates the results and then distributes these findings to the panel for their response. This process continues until the responses are consistent with the previous stage, demonstrating consensus. This consensus is developed without interaction among respondents, avoiding the potential for group bias.

This phase of the study was conducted from July 2007 to July 2008. It began with a pilot study followed by three stages of the Delphi survey. The pilot study aimed to determine if the documents (information sheet, consent form and instructions to answer survey/interview questions) required modifications to be better understood by the participants. The pilot study also aimed to decide on a common term for ‘returning to community’.

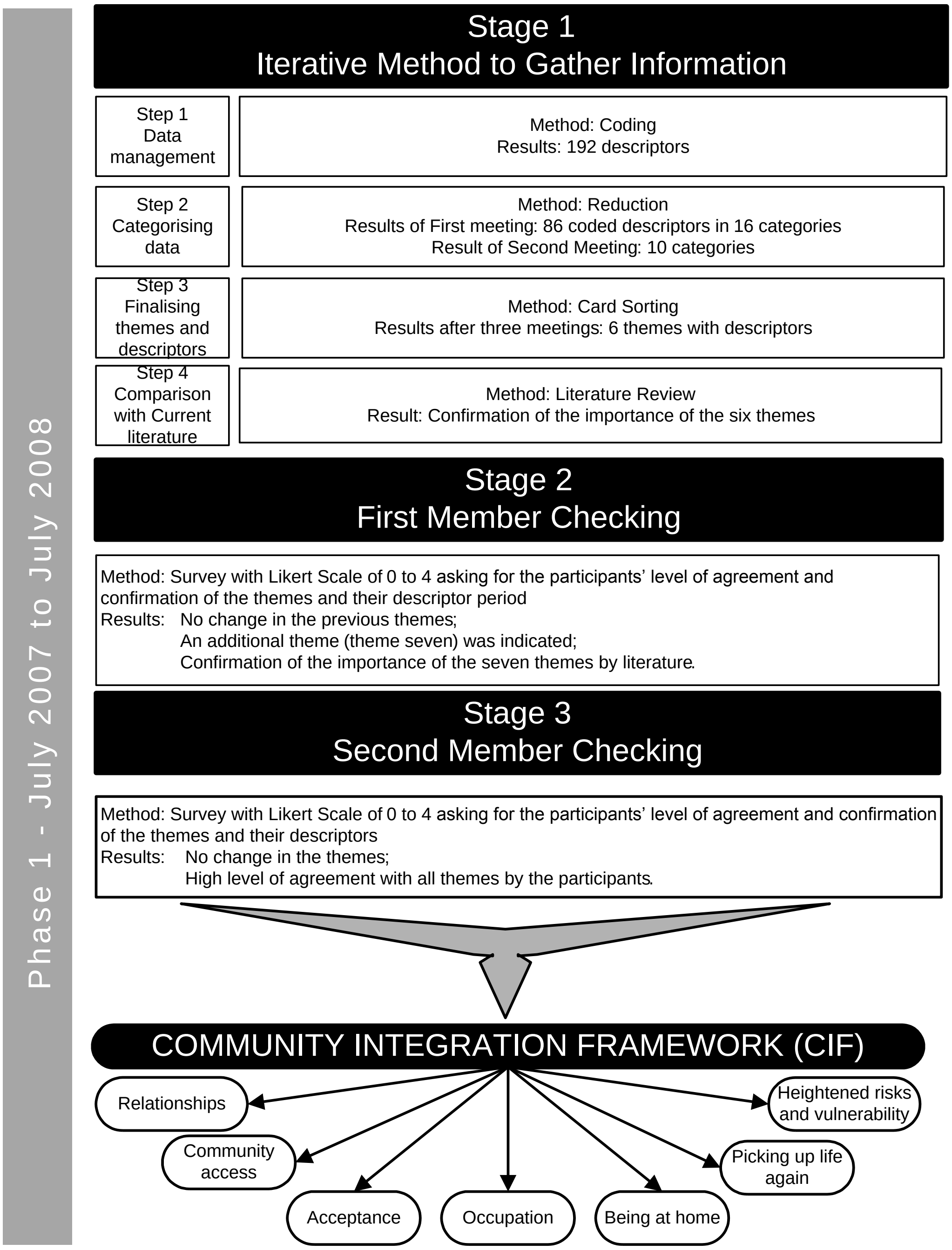
Based on the results of the pilot study, the necessary changes were made and the first stage of the Policy Delphi survey began. The participants were requested to define and identify aspects, components, and characteristics of successful community integration for adults with ABI. Data were then analysed and the results were classified into themes and descriptors according to participants’ views. The final product of this stage was compared with the current literature.

In the second stage, the participants were requested to review the results, determine their level of agreement with the themes and descriptors by assigning a numeric value, and provide comments. The participants’ comments were analysed and a new theme was added to the previous results which was also compared with the literature.

Finally, in the third stage of the Policy Delphi, the results of the second stage were sent to the participants to assign a numeric value to determine their level of agreement with the themes and descriptors and provide further comments. The results were analysed and the framework for community integration including themes and descriptors was completed. At this stage, the framework was ready to be used in the next phase of the study to determine characteristics of community integration programmes for adults with ABI.

The next sections of this chapter include method, results and a discussion of each of the three stages followed by a discussion of this first phase. This phase is summarised in Figure 3.1.

Figure 3.1. *Overview of Definition a Community Integration Framework for Adults with ABI*



Method: Coding
Results: 192 descriptors

Method: Reduction
Results of First meeting: 86 coded descriptors in 16 categories
Result of Second Meeting: 10 categories

Method: Card Sorting
Results after three meetings: 6 themes with descriptors

Method: Literature Review
Result: Confirmation of the importance of the six themes

Method: Survey with Likert Scale of 0 to 4 asking for the participants' level of agreement and confirmation of the themes and their descriptor period
Results: No change in the previous themes;
An additional theme (theme seven) was indicated;
Confirmation of the importance of the seven themes by literature.

Method: Survey with Likert Scale of 0 to 4 asking for the participants' level of agreement and confirmation of the themes and their descriptors
Results: No change in the themes;
High level of agreement with all themes by the participants.

3.2 Pilot Study: Clarifying the Documents and Deciding on an Agreed Term

3.2.1 Methodology.

The Reference Group (Refer to Section 1.5) reviewed the documents (consent form, information sheet, and a survey form) and suggested some amendments (change of wording and formatting) to make them more understandable for the participants. They approved a pilot study using the modified documents to improve their understandability. The Reference Group had a discussion on the term to be used in the study for ‘returning to community’. They did not come to any agreement on using either ‘social inclusion’ or ‘community integration’. Some members of the Reference Group believed that ‘community integration’ may only refer to physical integration while ‘social inclusion’ covers all the aspects of integration. Finally, they suggested including a survey in the pilot study to ask the participants which of the terms ‘social inclusion’ or ‘community integration’ were more familiar for them and could cover the concept of ‘returning to community’.

The Reference Group introduced a list of potential participants and an ABI centre as the setting for the pilot test. This centre provided community integration for adults with ABI. A small group of participants were selected for the study. They were representing potential participants for the Policy Delphi study (people with ABI, their family members or practitioners, and were involved with the service programmes for more than five months). During a telephone conversation, the participants were informed of the study aims and their tasks in the study. Then, the documents including consent form, information sheet, and a survey form for determining the term for ‘returning to community’ were sent to them. The survey form included a question as to whether the term ‘social inclusion’ is the same or different from the term ‘community integration’ for people with acquired brain injury and if they were considered to be not the same, the participants were asked to state their reason. The participants were requested to review the information sheet and consent form to determine the documents’ understandability. The results were then used to make necessary amendments on the forms and documents and make a final decision on the term.

3.2.2 **Results.**

A small group including three people with ABI, three family members, and three practitioners in the ABI service was recruited for the pilot study. They reviewed the documents (information sheet and consent form). Five of the nine participants including one person with ABI, one family member and all of the three practitioners confirmed that the documents were understandable. Two people with ABI and two of the family members reported that the language/terminology used in the documents was difficult to understand. They indicated that they needed someone to ‘translate’ the words into plain language. For instance, one of the participants mentioned that “the sentences on the information sheet were very lengthy and the wording was complex, i.e., less frequent and longer words were used and they were very complex”. One of the family members reported that “the words were too complex and I didn’t like to read the documents”. Based on these outcomes, two versions of the information sheet and consent form were prepared, one in more formal language for the professionals, and the other in plain language for people with ABI and family members (Appendix A).

All participants responded to the survey regarding use of the terms ‘community integration’ or ‘social inclusion’ to define ‘returning to community’. They believed that both terms had the same meaning, however, the term ‘community integration’ seemed closer to ‘returning to community’. Subsequently, the term ‘community integration’ was used in all phases of this study.

3.2.3 **Conclusion.**

The pilot study showed that the documents (the information and consent forms) were not very understandable for consumers and family members, They were subsequently modified. Also, it was agreed to use the term ‘community integration’ in the study.

3.3 **Stage One: Establishing the Meaning of Community Integration for People with ABI**

The aim of this stage of the research was to establish the meaning of community integration for people with ABI by surveying the Participant Groups

(Refer to Section 1.5). Once established, the definition and description was used to ensure shared meaning in the next phase of the research in order to determine characteristics of community integration programmes that contribute to the achievement of community integration.

3.3.1 **Method.**

The Policy Delphi (Hasson et al., 2000; Turoff, 2002; Turoff & Hiltz, 1995) was applied as an iterative method to gather information through using surveys and semi-structured interviews and to analyse and categorise the data. The Participant Groups were requested to define or identify aspects, components, and characteristics of successful community integration for adults with ABI. The data were then analysed in several steps and the results classified into themes and descriptors that were sent to the Participant Groups for the second stage of the Policy Delphi.

A survey form (Appendix C) was prepared for the Participant Groups. The survey form included an introductory section to clarify the purpose of the survey, instructions on how to complete the survey and the Participant Group’s tasks, and a timeframe to complete and return the survey to the researcher. In the survey, the Participant Groups were asked to express their explanation/s and definition/s of successful community integration for adults with ABI and provide examples to illustrate their definition/s. The survey included a single broad question: “How would you describe and define successful community integration for adults with acquired brain injury?” This type of question allowed flexibility to capture unanticipated aspects of the definition of community integration.

An electronic copy of the survey form was sent to the participants who had access to the internet including researchers, practitioners, policy makers and some family members. Other participants, including people with ABI and some family members who were not familiar with electronic mail, were invited to a semi-structured interview. The interview times and locations were scheduled to be convenient for the participants. The interviewees were informed that all of the interviews would be recorded for further analysis. A schedule was prepared for the semi- structured interviews (Appendix D). The interviews included an introduction followed by some broad questions. The aim and process of the study were explained.

The interviewees were requested to address the meaning of successful living in the community for people with ABI. At the completion of the interview, the participants were provided the opportunity to provide additional comments. To reduce interviewer bias, the interviewer avoided making any comments, and only asked for needed clarifications. All interviews were tape recorded to be transcribed for further analysis

Participants' views about community integration collected from the surveys and the semi-structured interviews were analysed in four steps. This process was designed to reduce a large amount of descriptive data into a concise list of themes and descriptors that reflected the meaning of social integration.

Step one: Managing the data

The verbatim data (descriptors of community integration collected from the surveys and the semi-structured interviews) were reviewed and substantive coding of data was accomplished using the words the Participant Groups had used to define community integration. Each piece of verbatim data (each descriptor) for community integration received its own numbered code without any change or comparison of the content between participants. The code consisted of two-digit numbers. The first number was the participant's code (one to thirty) and the second number, the quantity of the descriptors (one to ten). For example the code number 4.1 represented the first descriptor from the fourth participant.

Step two: Categorising the aggregate data

This step reduced the coded verbatim data (descriptors of community integration) using commonalities to organise them into categories. A category consisted of a number of descriptors that were considered to "fit" the category meaning. This process was completed by a team including the project supervisor, an expert in disability studies, and the researcher through two parts (meetings). Before the first meeting, the team members separately worked on the data to identify their commonalities and put them into categories. The separately identified categories were discussed in the first meeting and consensus was achieved on a list of categories. The coded data were then assigned into the agreed categories based on their fit. The second meeting followed the same process as the first one, aiming to further condense the categories resulting from the previous meeting. In this meeting the data were reduced through comparing the categories and fitting them within broader categories to be used in the third step.

Step three: Finalising themes and descriptors

In the final step of the data analysis, the team used a card sorting technique in three parts (meetings) to further reduce the data into defined themes and their descriptors of community integration (Speziale & Carpenter, 2007). Each category and its descriptors were printed on a separate card. The team members worked independently to sort the cards into different piles (more inclusive categories) depending on their commonalities. They were also provided with some blank cards to describe any new categories of descriptors, if needed. During the subsequent meetings, the team members rearranged, broke or remarked the categories until they reached consensus (Speziale & Carpenter, 2007). The name given to each category was considered as a theme. The number of themes was reduced by identifying commonalities to create broader themes (Ryan & Bernard, 2003). A brief descriptor for each theme was generated using the coded data which were categorised under each theme. The final result of this step was then compared with the current literature in the next step.

Step four: Comparing the results with the current literature

The current literature on the definition of community integration was reviewed and the key points were extracted to compare with the final list of themes and descriptors.

3.3.2 **Results and discussion.**

The thirty seven participants who completed the consent form were approached to answer the research question about definition of community integration. Thirty members of the Participant Group were involved in this stage: six researchers, five policy makers, six practitioners, and five family members returned the completed survey form electronically, and two family members and six people with ABI attended the semi-structured interviews. Seven people, including one policy maker, one practitioner, three family members, and two people with ABI, were not involved in this stage because of unavailability or poor health. All seven wished to participate in the following stages of the study.

In the first step of the analysis the participants' responses to the meaning of community integration were coded in 192 descriptors. The number of coded descriptors mentioned by each group of participants ranged in number between 27 (for researchers) and 60 (for people with ABI). Table 3.1 presents the frequency of the descriptors identified by different groups of participants.

Table 3.1. Frequency of the Descriptors between Participants

Participant group	Number of descriptors
Researchers (n=6)	27
Practitioners (n=6)	38
Policy makers (n=5)	39
Family members (n=7)	28
People with ABI (n=6)	60
Total (n=30)	192

In the first part (meeting) of the second step, the verbatim data were reviewed, reduced (from 192 items to 86) and assigned into five major categories with 16 sub-categories. The main categories and their subcategories are presented in Table 3.2.

Table 3.2. The Main Categories and Their Subcategories

A: Indicators of community integration

1. Participation / interaction/ relationships
2. Being a community member
3. Occupation/ recreation
4. Accommodation/settlement
5. Belonging

B: Elements of community integration

1. Social presence
2. Being productive
3. Living independently and back to old life
4. Social support

C: Dimensions of community integration

1. Physical being in community
2. Social being in community
3. Emotional or mental being in community

D: Concepts of community integration

1. Normalisation
2. Social roles

E: Assumption – key beliefs about community integration

1. Positive self-concept/self-confidence
2. Friendly and peaceful environment

In the second meeting of the second step, the five major categories and their 16 sub-categories were compared, and their commonalities were identified. As a result, ten new broader categories were defined. The categories included participation in the community, belonging to the community, adult roles, feeling at home, coping with new situations, returning to previous roles, living independently in the community, physically being in the community, being involved socially in the community, and having a positive attitude and self concept. The categories and the items under each category are presented in Table 3.3.

In the third step, the categorised coded data were analysed using a card sorting technique. The team members sorted the data individually and the results were discussed in meetings where a consensus was achieved. As a result, the ten categories from the second step were reduced to six broader themes. A brief description was prepared for each theme. The six themes and their descriptors for community integration which are presented in Table 3.4 were compared with the literature in the next step.

Table 3.3. The Categories and the Items under each Category

1. Participation in the community:
1a. Involved in continuing relationships with community members, neighbours, friends, and family;
1b.Getting social support and being accepted;
1c. Being able to choose friends, make friends, go out with friends; and
1d. Being able to help and get help from friends, neighbours, and family.
2. Belonging to the community
2a. Having a sense of belonging to the community;
2b. Being able to use basic community services and personal resources like going shopping, going to the cinema, voting, studying, exercising natural rights; and
2c. Having a correct perception of community membership.
3. Adult roles
3a. Having an occupation or a productive activity;
3b. Supportive work enabling movement toward independence;
3c. Participation/responsibility in social, productive, leisure or recreation activities;
3d. Functioning in the community with domestic support;
3e. Ability to choose and to do activities; and
3f. Illness self management.

Continued on next page

Table 3.3 continued

4. Feeling at home
4a. Living in and having own personal arrangements in the house; 4b. Engaging in normal and productive activities such as cooking, watching TV, reading newspaper, going to temple; 4c. Moving out of patient roles, and treatment centre to achieve a residence; and 4d. Somewhere to live that feels like home.
5. Coping with new situations
5a. Personal, social, physical, cultural and environmental fit; and 5b. Satisfaction and coping with the stresses from the new life situation.
6. Returning to previous roles
6a. Involvement in home or society as a father/mother or a valued member of family or the society; and 6b. Coming back or attempting to return to old life and achieving previous valued roles; or social recognition as a productive member.
7. Living independently in the community
7a. Being able to live alone and independently in a normal community as much as possible; and 7b. being able to manage living such as home management, using goods and services, going to work and back.

Continued on next page

Table 3.3 continue

8. Physically being in the community
8a. Bodily presence of a person with a disability in normal settings, activities, and environment, where other community members are also present; and 8b. Being able to use the community services/resources physically.
9. Being involved socially in the community
9a. Having culturally normative connections (both in amount and worth) with community members; 9b. Having adequate size and multiplicity of social roles; and 9c. Having social relationships with positive support and reciprocity, as opposed to stress and dependency.
10. Having a positive attitude and self concept
10a. Having a positive attitude and an adequate self-concept with regards to particular cultural society, relationships, positive feelings, emotional connection with neighbours; 10b. Belief in his or her ability to carry out needs through neighbours while exercising influence in the community; 10c. Having the ability to see his/herself as being similar to neighbours and a part of the neighbourhood; and 10d. Spending time with people who are not disabled, and having informal and unpaid relationships.

Table 3.4. The Six Themes and Their Descriptors for Community Integration

Theme one: Relationships This means being able to keep friendships and family relationships. To be able to spend time with friends and family. To make new relationships. To get support from family, friends, and neighbours.
Theme two: Community access Being physically present in the community and using community resources and opportunities such as goods and services, shops, cinemas, voting, studying, etc. It also means getting any practical and social supports that are necessary so this can happen. It means being as independent as possible in the community.
Theme three: Acceptance Acceptance means being a part of the community and having a sense of ‘belonging’. Being seen as a valued person like other people.
Theme four: Occupation This means being engaged in useful and meaningful activities at home and in the community, for example having a job, being involved in social, productive, and leisure or recreation activities. It also means being able to choose activities.
Theme five: Being at home Being at home is feeling that you are in your own home. At home, you are free to have your own personal arrangements in the house, being able to live alone or with others, and doing ordinary things people do at home such as cooking and eating the food you like, watching TV, and reading the newspaper. It means that from home you can go to important outside activities such as the church/mosque/temple. It also means having friends and family around.

Continued on next page

Table 3.4 continued

Theme six: Picking up life again
Picking up life again means returning to your old life as much as possible. It means returning to some old roles at home or in society such as a father/mother or other valued member of a family, or roles in work or social life. It means coping and having confidence in yourself and in your ability to do this.

In the fourth step, the current literature was compared with the results of the previous step. The literature related to each theme is presented below under separate headings (theme titles). The review of the literature confirmed and supported the themes and their descriptors.

Theme one: Relationships

There is a substantial literature that identified relationships as an indicator of community integration and is a major issue for people with ABI. Research has found that people with ABI are socially isolated, have less than four friends, meet their friends less than once a month (Crapps & Stoneman, 1989) and 90% of them were found to be disadvantaged in social relationships in comparison with their peers (Dawson & Chipman, 1995). All levels of relationship (from close to diffuse) are required for a person to be successfully integrated into the community (McColl et al., 1998). Relationships with family (Bruininks et al., 1992; McGrew et al., 1994), neighbours (Carling, 1995; Flynn & Aubry, 1999) and relatives as well as relationships with friends (Beal, 1999; Davidson et al., 1999; Davidson et al., 2001) and other people in the community (Dijkers, 1998; Ittenbach, Bruininks, Thurlow, & McGrew, 1993) were addressed frequently in both qualitative and quantitative studies. Some authors emphasised that although relationships with family or people with disability facilitate community integration, having relationships with other people in the community (Brewer, Gadsden, & Scrimshaw, 1994; Cummins & Lau, 2003; Lee et al., 2001; Willer et al., 1993) and exchange of social support is necessary (Halpern et al., 1986; Lee et al., 2001). In a study on persons with severe ABI, regardless of the level of social integration the persons were in, they perceived meeting new people and making new friends as highly important (McColl et al., 1998).

Theme two: Community access

Community access is another aspect of community integration which incorporates moving out from a sheltered life in the family house or isolated housing arrangements to a more independent life with access to and use of community resources (Carling, 1995; Nelson, Lord, & Ochocka, 2001; Segal & Aviram, 1978).

A mixed-method research on perception of support for people with severe ABI showed that community-based activities were the most important and effective type of support for this group of people (Ownsworth, Turpin, Carlson, & Brennan, 2004). Community access includes, but is not limited to, physical presence in the community (Wolfensberger, 1972, 1983b; Wolfensberger & Thomas, 1983; Wong & Solomon, 2002). Different aspects of community access such as participation in the community (Segal & Aviram, 1978), leisure activities (Bruininks et al., 1992; McGrew et al., 1994), education (Pellman, 1992), being able to accomplish activities of daily living (McCabe et al., 2007), access to medical and dental services (Bond, Salyers, Rollins, Rap, & Zipple, 2004; Minnes et al., 2002) and actively being involved in social groups (Dijkers, 1998) are vital. Their quality and quantity can affect successful re-entering into the community (Wolfensberger, 1972, 1983b; Wolfensberger & Thomas, 1983). Access to civil rights, roles, and responsibilities in community (Carling, 1995; Dijkers, 1998) are more achievable if the person lives independently (McCabe et al., 2007) or in a normative community setting (Wolfensberger, 1972, 1983b; Wolfensberger & Thomas, 1983).

Theme three: Acceptance

Acceptance is frequently discussed in the literature on community integration. Some authors defined community integration as being part of a community and feeling a sense of community (Cummins & Lau, 2003). Being a citizen in the community and using community resources similar to other citizens in work and education are seen as important evidence of community integration (Racino, 1995). Several other authors included acceptance as one of the indicators of successful community integration (Bruininks et al., 1992; Carling, 1995; McColl et al., 1998; McGrew et al., 1994; Wong & Solomon, 2002). Acceptance is achieved when the person is fully involved and “belongs” to the family and society (Labonte, 2004).

Theme four: Occupation

Something to do (Jacobs, 1993), job/employment/work (Carling, 1995), adult role (Bond et al., 2004; Halpern et al., 1986; Nelson et al., 2001), productive activity (Dijkers, 1998; McCabe et al., 2007) and meaningful activity (Lee et al., 2001) are some examples of terms referring to occupation (Dijkers, 1998; Halpern et al., 1986) as a critical component of community integration. Although occupation may be defined as being occupied to fill up time, meaningful activity is thought to be essential to transit successfully into the community (Wong & Solomon, 2002). Occupation has various expressions including leisure or recreational activities (McCabe et al., 2007; Salzberg & Langford, 1981; Wolfensberger & Tullman, 1982), paid/volunteer jobs (Bond et al., 2004; McCabe et al., 2007; Wolfensberger & Tullman, 1982), studying, having an economic and political life (Townsend & Ryan, 1991). The ultimate goal is to have occupation like other people in the community and to be able to choose (Dijkers, 1998). Some researchers believe that neither living under the support of the family, nor having sheltered employment, or living with similar people with disability means that the person is integrated into the community (Brewer et al., 1994; Cummins & Lau, 2003; Willer et al., 1993).

Theme five: Being at home

Being at home is addressed in the literature in the context of having meaningful adult roles (Bond et al., 2004; Fleming, Doig, & Katz, 2000). Living at home usually means being subject to the least limitations. It includes access to home-forming practices such as managing the house (Minnes et al., 2002), activities of daily living (McCabe et al., 2007), being involved with in roles inside and outside the home (Crapps & Stoneman, 1989; Kruzich, 1985), having spiritual needs met (Minnes et al., 2002), and social interaction with other people in the home environment (Carling, 1995; Nelson et al., 2001).

Theme six: Picking up life again

Returning to former roles at home and in the society as a valued person is addressed in the literature as an important element of community integration (Willer et al., 1994). The roles might include participating at home, community and productive activities (Willer et al., 1993). Having meaningful, valued roles gives confidence to the person (Nelson et al., 2001).

3.3.3 **Conclusion.**

The five steps of iterative analysis of the data gathered through surveys and semi- structured interviews resulted in six themes that described the meaning of community integration for people with ABI: Relationships, acceptance, community access, occupation, being at home, and picking up life again. The next stage of the study aimed to confirm the themes and descriptors through a member checking process with members of the Participants Groups.

3.4 Stage Two: Confirmation of the Themes

3.4.1 Method.

In this stage of the Policy Delphi (member-checking process), a survey was prepared for the Participant Groups to determine their level of agreement on the themes and their descriptors (Appendix E). The participants were asked to assign a numeric value to the themes on a five point Likert scale. The values ranged between zero and four; 4 (strongly agree), 3 (agree), 2 (uncertain), 1(disagree), 0 (strongly disagree). They were also asked to provide comments to confirm /clarify /correct the themes and their descriptors based on their opinions (Hasson et al., 2000; Turoff, 2002; Turoff & Hiltz, 1995).

The participants were approached to complete the survey electronically or through attending a semi-structured interview. Similar to the previous stage, an introductory letter and a semi-structured interview schedule were prepared. The introductory letter included a summary of the results of the previous stage, the aim of the current stage of the study and the details about what was being asked of the participants. An electronic copy of the introductory letter and the survey form were sent to the participants who had access to the electronic mail. The introductory letter and some additional information about the semi-structured interview were posted to the participants who had no access to electronic mail including some of the family members group and all of the people with ABI. The information was about preparation needed for the interviews, venue for the interview, and the researcher’s contact details. The participants were contacted to determine a convenient time for the interview. The semi-structured interview framework was prepared to follow the same structure as the survey. All instructions were given to the participants orally and they completed the survey during the interview. To prevent any biases during interviewing, responses were repeatedly restated to ensure accuracy in interpretation.

The data (numeric values on level of agreement and the participants' comments) collected from the surveys and interviews, were analysed to determine consistency and accuracy across the Participant Groups. The themes and descriptors were modified based on the participants' comments.

3.4.2 **Results and Discussion.**

Thirty seven participants answered the surveys or attended the semi-structured interviews. They determined their agreement levels and commented on the themes and descriptors. The research team reviewed the comments. There were no suggested changes to the theme titles, however, an additional theme (Heightened risks and vulnerability) was indicated and some changes to descriptors suggested.

The Participant Groups' levels of agreement on the themes are presented in Table 3.5. Agreement levels ranged between 2.9 ± 0.4 (Theme six) and 3.8 ± 0.2 (Theme one).

Table 3.5. Levels of the Participant Groups' Agreement

Participants' groups	Level of agreement and standard deviation					
	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6
Family members	3.6 ± 0.5	3.5 ± 0.5	3.5 ± 0.5	3.4 ± 0.7	3.5 ± 0.5	2.8 ± 0.8
People with ABI	3.9 ± 0.3	3.3 ± 0.7	3.3 ± 0.9	3.3 ± 1.1	3.6 ± 0.5	3.3 ± 0.7
Practitioners	3.7 ± 0.5	3.4 ± 0.5	3.6 ± 0.5	3.7 ± 0.5	3.7 ± 0.5	2.4 ± 1.1
Researchers	3.7 ± 0.5	3.5 ± 0.5	3.5 ± 0.8	3.5 ± 0.8	3.2 ± 1.0	3.2 ± 0.8
Policy makers	4.0 ± 0.0	3.4 ± 0.5	3.6 ± 0.5	3.6 ± 0.5	3.2 ± 1.3	2.8 ± 1.3
Total	3.8 ± 0.2	3.4 ± 0.1	3.5 ± 0.1	3.5 ± 0.2	3.4 ± 0.2	2.9 ± 0.4

The average agreement score and amendments for each theme suggested by the participants are discussed below.

Theme one: Relationships

This means being able to keep friendships and family relationships. To be able to spend time with friends and family. To make new relationships. To get support from family, friends, and neighbours.

The average agreement level for Theme one was 3.8 ± 0.2.

Suggested descriptor changes

- Broaden the domain of ‘relationship’ from family and friends to people who may be seen briefly from time to time such as doctors, shopkeepers, etc.
- The concept of relationship should include reciprocity.

Modified themes descriptor

Relationships mean maintaining existing relationships and forming new relationships. Having relationships ranging from close, intimate relationships and friendships to more distant relationships such as those with acquaintances. It includes people who you meet in the normal course of the day such as shopkeepers and bus drivers. It means being able to get benefit from the support of family, friends, and neighbours and contributing to those relationships.

Theme two: Community access

Being physically present in the community and using community resources and opportunities such as goods and services, shops, cinemas, voting, studying, etc. It also means getting any practical and social supports that are necessary so this can happen. It means being as independent as possible in the community.

Average agreement level for the second theme was 3.4 ± 0.1.

Suggested descriptor changes

- Clarify the theme by adding the phrase ‘ability to choose and use community resources’.

Modified themes descriptor

Community access means being physically present in the community and able to choose and use community resources such as goods and services, shops, cinemas, education, health services, etc. It also means getting any practical and social supports that are necessary so this can happen. It means being as independent as possible in the community.

Theme three: Acceptance

Acceptance means being a part of the community and having a sense of ‘belonging’. Being seen as a valued person like other people.

Participants’ average agreement level for the third theme was 3.5 ± 0.1.

Suggested descriptor changes

- Acceptance means being included in the community.
- It involves both ‘how we feel about ourselves’ and ‘how others react to us’.
- The description for ‘acceptance’ may be misinterpreted as acceptance means ‘being a valued member of the community and having a sense of belonging with disability being no barrier’.

Modified themes descriptor

Acceptance means being included and participating in the community and having a sense of belonging. It includes feeling that you are a valued person and being valued by others.

Theme four: Occupation

This means being engaged in useful and meaningful activities at home and in the community, for example having a job, being involved in social, productive, and leisure or recreation activities. It also means being able to choose activities.

Average agreement level for theme four was 3.5 ± 0.2.

Suggested descriptor changes

- Although engagement in activity is an important part of community integration, satisfaction with the occupation is of particular value.
- It is important to be able to choose what you like to spend your time on. It is possible you choose ‘not to do anything’.

Modified themes descriptor

Occupation means being engaged and satisfied in useful and meaningful activities at home and in the community, for example having a job, being involved in social, productive, and leisure or recreation activities. It also means being able to choose how you spend your time.

Theme five: Being at home

Being at home is feeling that you are in your own home. At home, you are free to have your own personal arrangements in the house, being able to live alone or with others, and doing ordinary things people do at home such as cooking and eating the food you like, watching TV, and reading the newspaper. It means that from home you can go to important outside activities such as the church/mosque/temple. It also means having friends and family around.

The participants' average agreement level for this theme was (3.4 ± 0.2).

Suggested descriptor changes

- The word 'own' might make this misunderstanding that if somebody is not in his/her own property, he/she is not integrated into the community. What is important is 'feeling that you are in your home'.
- In the examples used to describe the theme such as 'going to outside activities from home' and 'having friends and family around', the emphasis should be on the ability to choose the activity you like.

Modified themes descriptor

Being at home is feeling that you are in your home. At home, you are free to have your own personal arrangements in the house. You can choose to live alone or with others. You can do the ordinary things people do at home such as cooking and eating the food you like, watching TV, and reading the newspaper. It means that from home you can go to important outside activities which you choose.

Theme six: Picking up life again

Picking up life again means returning to your old life as much as possible. It means returning to some old roles at home or in society such as a father/mother or other valued member of family, or roles in work or social life. It means coping and having confidence in yourself and in your ability to do this.

The average agreement level for theme six was 2.9 ± 0.4.

Suggested descriptor changes

- It is not accurate to use the phrase ‘returning to the old life’ as for some people ‘returning to old life’ is liberation while for others with unhappy previous lives, it is a wounding experience. Also, it depends on many factors such as, physical, emotional, and psychological abilities and sometimes it is impossible, and leads to some psychological problems.
- Using the term ‘development of new roles’ rather than taking up ‘old role’.
- Exploring appropriate new roles and feeling and being valued in those new roles is often more an accurate indicator of community integration, and this would develop a life and roles based on the current situation rather than the old life.

Modified themes descriptor

Picking up life again means returning to some old roles at home or in society such as a father/mother, partner, or other valued member of family, or roles in work or social life. It also means having new experiences and developing and taking up new roles. It means having confidence in yourself and in your ability to do this.

Additional theme: Theme seven: Heightened risks and vulnerability

It was suggested that one of the indicators of community integration is to understand how to behave and interact with the community, recognising the impact of self, both positively and negatively, on the community. An additional theme was suggested to reflect a healthy balance between independence and interdependence to show people are able to maximise their independence and create optimal relationships regarding interdependence. The vulnerability of many people with ABI in the community needed to be incorporated into the framework. Some relevant participants’ comments are presented below.

“It is important to be physically present in the community but you may require help to achieve this”.

“Presence is a prerequisite to inclusion however many people can be extremely isolated and disconnected while very present in community settings. The notions of acceptance and relationships are more important”.

"There is something missing re having community integration. I should say this is the notion of feeling safe and secure in receiving support or service from community".

"I wonder whether there is also a theme around safeguards, i.e., successful inclusion acknowledges and responds to the person's vulnerabilities rather than just dumps the person".

A seventh theme based on the participants' comments was defined as follows.

Theme seven: Heightened risks and vulnerability

Community integration may involve additional risk if you have an acquired brain injury and are vulnerable. Such risks include social isolation, exploitation, and physical harm. Safeguards are required to prevent or address risks.

Similar to the first six themes, the seventh theme was compared with the current literature. The literature emphasised different barriers/stresses for reintegration into the community. Karlovits and MacColl (1999) asserted returning to the community increased the risk of vulnerability such as lack of meaningful relationships and isolation, problems with living situation and loss of independence, lack of routine and problems in school/work, and in general integration which provide stressors for the person. Bond, Salyers, Rollins, Rap, and Zipple (2004) emphasized that separating consumers from their community by providing unnecessary support, such as offering them transportation service rather than supporting them using community transportation, might act as barrier for community integration. Poor attitudes of practitioners and problems in accessing services are situations that might make the person vulnerable (Bond et al., 2004). Risks and vulnerability are heightened when a person lives in a harmful, unfriendly environment that has negative social relationships (Cummins & Lau, 2003; Rook, 1984). Having valued and meaningful, roles gives confidence to the person (Nelson et al., 2001) and is an important safeguard against risk and vulnerability (Wolfensberger & Tullman, 1982).

3.4.3 Conclusion.

Seven themes were identified and described in stage two of this phase of the study, resulting from the Policy Delphi methodology and a process of member checking to clarify the themes.

3.5 Stage Three: Final Agreement for the Seven Themes and Descriptors

The participants in this stage were requested once more to show their level of agreement with the themes considering their descriptors. This was the final stage of member checking in order to verify and validate the themes and their descriptors using the Participant Groups' views.

3.5.1 Method.

The method and the number of the Participant Groups used in this stage were identical to that of the previous stage with the difference that the seven themes with changes to descriptors were reviewed. The Participant Groups were asked to assign a numeric value to determine their agreement with each theme and provide comments on any suggested changes. The data (participants' opinions) collected through the surveys and interviews were analysed to confirm the themes.

3.5.2 Results and discussion.

No changes to the themes or descriptors were suggested. There was a high level of agreement across the themes (average of 3.8 ± 0.07). The average agreement scores on each theme and standard deviation are presented in Table 3.6.

Table 3.6. Levels of Agreement by the Participant Groups in the Seven Themes

Participants' Group	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6	Theme 7
Family members	4.0 ± 0.0	3.8 ± 0.4	3.9 ± 0.3	3.9 ± 0.3	3.8 ± 0.4	3.9 ± 0.3	3.8 ± 0.4
People with ABI	3.9 ± 0.3	3.9 ± 0.3	3.7 ± 0.5	3.9 ± 0.3	3.8 ± 0.4	3.8 ± 0.4	3.8 ± 0.4
Practitioners	3.9 ± 0.4	3.7 ± 0.5	3.7 ± 0.5	3.7 ± 0.5	3.7 ± 0.5	3.9 ± 0.4	3.7 ± 0.5
Researchers	3.8 ± 0.4	3.7 ± 0.5	3.7 ± 0.5	3.7 ± 0.5	3.8 ± 0.4	4.0 ± 0.0	3.7 ± 0.5
Policy makers	4.0 ± 0.0	3.8 ± 0.4	3.8 ± 0.4	3.6 ± 0.5	4.0 ± 0.0	4.0 ± 0.0	3.8 ± 0.4
Total	3.9 ± 0.1	3.8 ± 0.1	3.7 ± 0.1	3.8 ± 0.1	3.8 ± 0.1	3.9 ± 0.1	3.8 ± 0.1

The final structure to describe community integration framework (CIF) for lts with ABI is presented in Table 3.7.

Table 3.7. The Community Integration Framework (CIF) for Adults with ABI

Theme one: Relationships Relationship means maintaining existing relationships and forming new relationships. Having relationships ranging from close, intimate relationships and friendships to more distant relationships such as those with acquaintances. It includes people who you meet in the normal course of the day such as shopkeepers and bus drivers. It means being able to get benefit from the support of family, friends, and neighbours and contributing to those relationships.
Theme two: Community access Community access means being physically present in the community and able to choose and use community resources such as goods and services, shops, cinemas, education, health services, etc. It also means getting any practical and social supports that are necessary so this can happen. It means being as independent as possible in the community.
Theme three: Acceptance Acceptance means being included and participating in the community and having a sense of belonging. It includes feeling that you are a valued person and being valued by others.
Theme four: Occupation Occupation means being engaged and satisfied in useful and meaningful activities at home and in the community, for example having a job, being involved in social, productive, and leisure or recreation activities. It also means being able to choose how you spend your time.

Continued on next page

Table 3.7 continued

Theme five: Being at home Being at home is feeling that you are in your home. At home, you are free to have your own personal arrangements in the house. You can choose to live alone or with others. You can do the ordinary things people do at home such as cooking and eating the food you like, watching TV, and reading the newspaper. It means that from home you can go to important outside activities which you choose.
Theme six: Picking up life again Picking up life again means returning to some old roles at home or in society such as a father/mother, partner, or other valued member of family, or roles in work or social life. It also means having new experiences and developing and taking up new roles. It means having confidence in yourself and in your ability to do this.
Theme seven: Heightened risks and vulnerability Community integration may involve additional risk if you have an acquired brain injury and are vulnerable. Such risks include social isolation, exploitation, and physical harm. Safeguards are required to prevent or address risks.

3.5.3 **Conclusion.**

A community integration framework (CIF) for adults with ABI was developed including seven themes and descriptors. The themes consisted of Relationships, Acceptance, Community access, Occupation, Being at home, Picking up life again, and Heightened risks and vulnerability, which were confirmed with the current literature. The framework was used as the basis to investigate characteristics of community integration programmes for adults with ABI in the next phase of the study.

Chapter 4:
An Instrument to Evaluate the Fidelity of Community Integration Programmes for Adults with ABI

Chapter 1: Introduction

Chapter 2: Literature Review
Brief Summary:
Definition, statistics and burden of acquired brain injury
History of community integration
Definition of community integration
Community integration programs
Factors which influence community integration
Outcome measurements of community integration
Program evaluation
Program fidelity

Chapter 3: Defining a community integration framework for adults with ABI
Methodology: The Policy Delphi Survey
Objective 1: Development of a framework for community integration for adults with post acute ABI

Chapter 4: An instrument to evaluate the fidelity of community integration programs for adults with ABI
Methodology: Multi Attribute Utility (MAU)
Objectives 2: Investigation of the characteristics of successful community integration programs in order to develop of an instrument to evaluate the fidelity of community integration programs for adults with ABI

Chapter 5: Field test of program assessment of community integration attributes
Methodology: Field testing the instrument
Objectives 3a, 3b and 3c: Field testing of the instrument to identify possible implementation issues with the tool; explore the relationship between the themes and attributes across the three services; and establish some aspects of psychometric properties of the instrument

Chapter 6: Discussion and Conclusion

4.1 **Introduction**

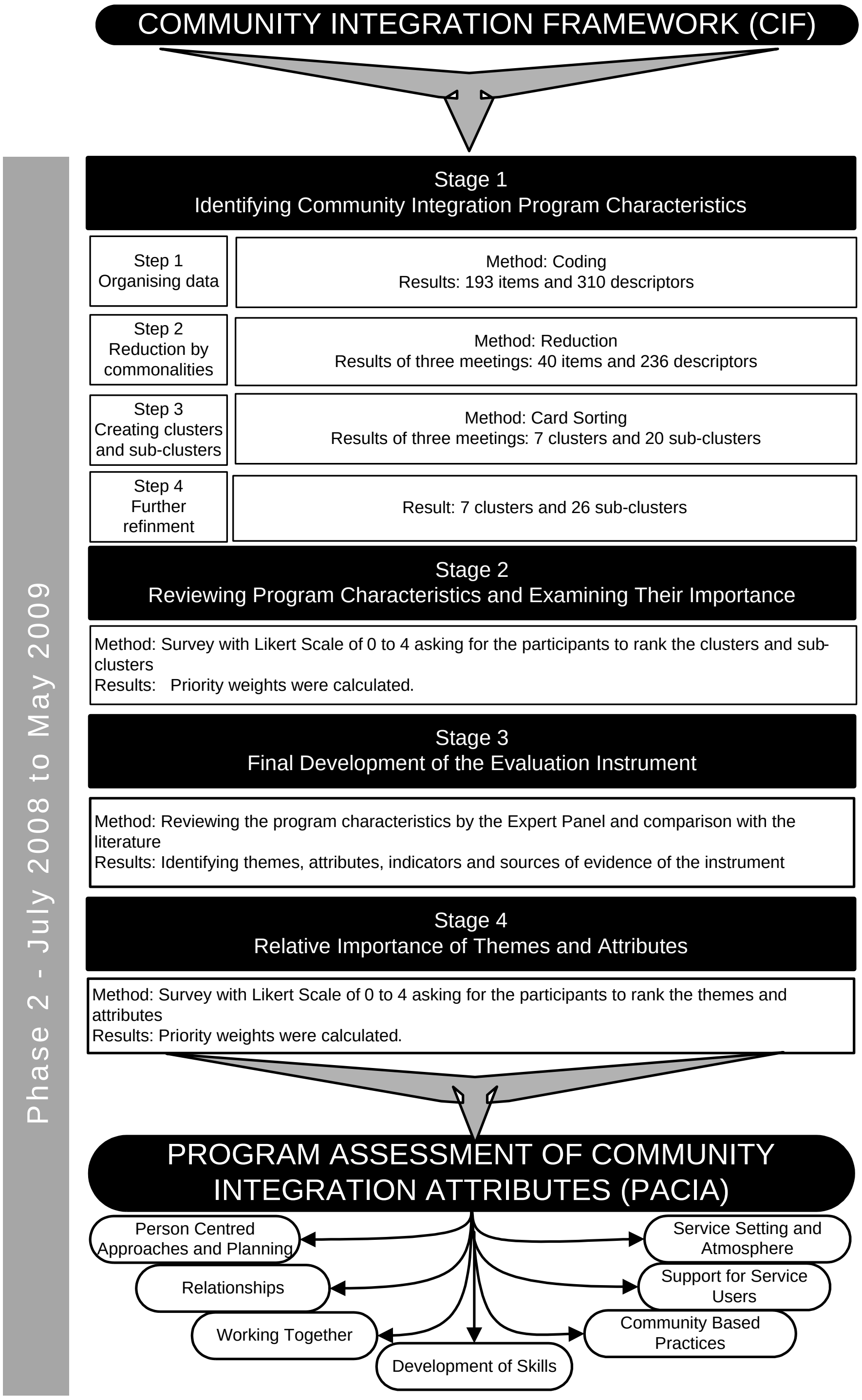
The previous chapter reported on the first phase of the study which developed the community integration framework (CIF), a framework and definition of community integration for people with ABI. The framework (Appendix F) included seven community integration themes and definitions i.e., Relationships, Acceptance, Community access, Occupation, Being at home, Picking up life again, and Heightened risks and vulnerability. This chapter reports on the second phase of the study which used the CIF in order to identify the characteristics of programmes that contribute to achievement of community integration for adults with ABI. These characteristics were used to develop an instrument for evaluation of the fidelity of community integration programmes for adults with ABI.

A descriptive study design was applied through a mixed qualitative and quantitative methodology. This study was completed through a four stage process based on Multi Attribute Utility (MAU) methodology (Camasso & Dick, 1993; Huber, 1974; Lewis et al., 2003). MAU is a method to identify the characteristics/sub-clusters of a programme according to its achievement of specified goals, such as community integration. MAU structures the decision-making process by which programme characteristics are identified systematically and with a quantitative dimension. The process involves a group of stakeholders identifying programme sub-clusters which can then be organised into instrument clusters. The instrument clusters and sub-clusters are assigned weights determined by the priorities or importance given to them by the stakeholders. The final weight given to a particular instrument sub-cluster is the product of the priority weight given to the cluster and the sub-cluster, i.e., Cluster × Sub-cluster = Product (Final weight). The final instrument consists of instrument clusters and sub-clusters of clusters that have assigned priority weights that can be used to evaluate a programme (Camasso & Dick, 1993; Lewis et al., 2003).

The study was conducted from July 2008 to May 2009. In the first stage, surveys or semi-structured interviews with the Participant Groups resulted in a description of the characteristics of programmes that were identified as contributing to community integration outcomes. The information was analysed and classified into clusters and sub-clusters with a brief description. Priority weights were established in the second stage. The third stage, examined, confirmed and/or modified clusters and sub-clusters to make the instrument themes, attributes, and definition of indicators for the attributes. Following this, the results were compared with the current literature. There were some modifications to the clusters and sub-clusters to make instrument themes and attributes in the third stage. Finally, in the fourth stage, the themes and attributes were sent to all the Participant Groups to clarify and determine priority weights for them. The results were analysed and the actual instrument was designed which included themes, attributes, indicators, sources of evidence and a rating scale. The instrument was then ready to be used in the next phase to evaluate services. The four stages of this phase are summarised in Figure 4.1.

This chapter includes method, results and a discussion of each of the four stages and provides a conclusion. The Participant Groups were researchers, policy makers, practitioners, people with ABI and their family members who were selected using the same inclusion criteria as that of the previous study (Section 3.2) which defined the community integration framework (CIF).

Figure 4.1. Overview of Development of Programme assessment of Community Integration Attributes (PACIA)



4.2 Stage one: Identifying the Characteristics of Community Integration Programmes

This stage aimed to identify clusters and sub-clusters of community integration programmes for adults with ABI.

4.2.1 Method.

MAU (Camasso & Dick, 1993; Lewis et al., 2003) was applied as a method to gather information through use of surveys or semi-structured interviews. The participants in the previous study were approached. They were asked to identify the characteristics of programmes, or services that contribute to the achievement of positive outcomes in community integration for adults with ABI.

An introductory letter, a survey form, and an interview framework were prepared for participants. The introductory letter (Appendix G) included information regarding the previous study results, the current study aims and process, participants' tasks, and researchers' contact details. The survey form (Appendix H) included instructions to complete the survey. The participants were requested to list and briefly describe characteristics or sub-clusters of programmes that were likely to be effective in achieving community integration outcomes based on the community integration framework (CIF) which was attached to the survey.

Electronic copies of the introductory letter, survey form, and the community integration framework (CIF) were sent to participants who had access to the internet including researchers, practitioners, policy makers and some family members. Other participants, including people with ABI and some family members who were not familiar with electronic mail, were invited to a semi-structured interview. Interviews times were organised based on the convenience for the participants. The interviewees were informed that all of the interviews would be recorded for further analysis. A schedule was prepared for the semi- structured interviews (Appendix I). The interviews included an introductory section and questions. In the introductory section, the previous study and its results were reviewed and the current study aim and process were explained. The interview included open ended questions based on the CIF in which the participants were requested to address community integration programme characteristics for adults with ABI. At the end of the interview, the participants were provided the opportunity to add any characteristics which had not been previously mentioned. In order to prevent any bias in the interview, the interviewer did not make any comments, and only repeated the participants' statements to make conclusions or asked them to clarify their comments, if needed.

The raw data (items and their descriptors) collected from the surveys and the semi-structured interviews were analysed in four steps as below.

Step one: Organising the data

The raw data (items and descriptors) were reviewed by the researcher and substantive coding of data was applied using the words of the Participant Groups, to find common characteristics and to simplify access to the data during the analysis. Each piece of raw data was given its own code without any change or comparison of the content between groups. The code for each item consisted of a digital number and a letter. The number was the participant code (1 to 28) and the letter showed number of the item mentioned by the same participants (A to Z). For example 3D represented item D of the survey from the third participant. For the descriptors another number from 1 to 20 was added to the item's code which represented the descriptor's number. For example descriptor 3D2 means the second descriptor in item two from the third participant.

Step two: Reduction by commonalities

This step was aimed to reduce the coded raw data using their commonalities to organise them into the seven themes from the community integration framework (CIF). This process was completed during three parts (meetings) by a team which included the project supervisor and the researcher. Before each meeting, the team members separately worked on the data to identify their commonalities and put them into the seven community integration framework (CIF) themes. The separately identified categories in the themes were discussed in the meetings and consensus was achieved on them. The coded data were then assigned into the agreed categories based on their fit.

Step three: Creation of clusters and sub-clusters

In the third step, a team including the project supervisor, an expert person in programme evaluation and development, and the researcher analysed the items and descriptors using a card sorting technique in three parts (meetings). The cards included the items and descriptors. The cards were sorted in piles by each team member separately and then the new categories were discussed and reviewed during the meetings. Each pile of the items and descriptors with common meaning were identified as a sub-cluster. The clusters were then made by grouping sub-clusters within a broader concept. Then, the team members worded the clusters with brief descriptions based on the sub-clusters. This process was continued in the meetings until the team agreed on the clusters and sub-clusters and the descriptors for the clusters were also defined.

Step four: Further refinement

In step four, a team consisting of the project supervisor and the researcher modified the results from the previous analysis. The clusters, their descriptors and sub-clusters were reviewed with minor changes and edited into more understandable and plain language.

4.2.2 **Results and discussion.**

The thirty seven participants in the previous phase of the study were approached and 28 people agreed to participate in this stage of study. Five researchers, six policy makers, three practitioners, and seven family members participated in the surveys, and two family members and five people with ABI participated in semi-structured interviews. Nine people responded that they were not able to participate in this stage because of locally unavailability or poor health conditions, including one researcher, four practitioners, one family member, and three people with ABI. However, all those who did not participate in this stage confirmed that they would continue to participate in the following stages of the study.

In the first step of stage one of the analysis, the Participant Groups' opinions about characteristics of programmes that are likely to be effective in achieving community integration outcomes were coded in 193 items and 310 descriptors. These items and descriptors were organised into the seven themes of the CIF based on the participants' responses to the surveys or interviews. The items ranged between 18 (for theme five) and 41 (for theme one), and the descriptors in each community integration theme ranged between 27 (for theme five) to 58 (for theme one). Table 4.1 presents the frequency of the items and descriptors in each theme of the CIF identified by different groups of participants.

Table 4.1. Number of Items and Descriptors in Each Theme of the CIF Recognised by the Participant Groups in the First Analysis Step of Stage One

	The number of items in each theme								The number of descriptors in each theme							
Participant Groups	T1[a]	T2[b]	T3[c]	T4[d]	T5[e]	T6[f]	T7[g]	Total[h]	T1	T2	T3	T4	T5	T6	T7	Total[i]
Researchers n=5	6	4	8	5	4	6	8	41	6	5	11	5	5	6	8	46
Policy makers n=6	10	10	9	11	5	4	6	55	28	29	33	21	13	12	22	158
Practitioners n=3	6	4	5	2	4	4	4	29	6	4	7	4	4	4	4	33
Family members n=2	13	9	5	3	4	4	4	42	13	10	6	4	5	4	5	47
People with ABI n=5	6	6	3	3	1	2	5	26	6	6	3	3	1	2	5	26
Total[j] n=28	41	33	30	24	18	20	27	193	59	54	60	37	28	28	44	310

[a]Theme one: Relationships; [b]Theme two: Community access; [c]Theme three: Acceptance; [d]Theme four: Occupation; [e]Theme five: Being at home; [f]Theme six: Picking up life again; [g]Theme seven: heightened risk and vulnerability; [h]Total number of items for each group of participants; [i]Total number of descriptors for each group of participants; [j]Total number of items or descriptors in each theme.

In the second step of analysis, the data were organised during a reduction process by commonalities under the seven themes of the CIF. The duplicated items and descriptors both in meaning or words were deleted. The results included 40 items and 236 descriptors which were re-organised in the seven themes of the CIF to use for the next analysis step (Appendix J). An example of the re-organisation of items was to change item 1A 'Marriage or other long term partnership' in theme one of the CIF 'relationship' with its descriptor (1A1) 'culturally common and valued way to get and receive support'. Although item 1A was originally identified as an item by one of the participants, it was conceptually too narrow to be a separate item. However, descriptor 1A1 consisted of a broad concept which could cover some other items including the item 1A. Therefore, descriptor 1A1 was kept as an item with two more descriptors including 6D 'Recognising individuality and choice' and 5F1 'Considering individual's needs and values' as well as 1A.

In the third step, the categorised items and descriptors were analysed using a card sorting technique (Speziale & Carpenter, 2007). The team members sorted the data individually and the results were discussed in meetings where a consensus was achieved. As a result, based on commonalities of the items and descriptors, a new classification was introduced and the data were categorised under seven clusters and 20 sub-clusters as characteristics of community integration programmes for adults with ABI. The clusters included 'collaboration', 'relationships', 'person centred approaches and planning', 'service environment, culture, and atmosphere', 'community based practices', 'skills development', and 'support for service users'. The sub-clusters are presented in Appendix K.

In the fourth step the clusters and sub-clusters resulting from the previous step were modified into seven clusters with their descriptors and 26 sub-clusters (Appendix L). The clusters were edited and more complex sub-clusters were broken into smaller and simpler ones to make them more understandable. Table 4.2 presents the clusters and sub-clusters resulting from steps three and four. The clusters and their descriptors, sub-clusters, and rationales for the modifications are discussed below.

In cluster one, the term 'collaboration' was changed to 'working together' which is a broader phrase, includes collaboration and extends the range of stakeholders to which the cluster refers. However, no changes were made in the sub-clusters. Cluster one displayed as follows.

Cluster one: Working together

BRIEF DESCRIPTION: The service involves and works with a range of relevant stakeholders including family, friends of service users, staff, community resources, and advocacy groups in order to enhance community integration.

Sub-cluster 1.1: The service works closely with family and friends of service users.
Sub-cluster 1.2: The service staff work as a team.
Sub-cluster 1.3: The service accesses and works collaboratively with community services.
Sub-cluster 1.4: The service works cooperatively with advocacy groups.

Clusters two, three, four, and five were not changed in any way in the two latest analyses (steps three and four). However, the descriptions for the clusters were changed. The description for cluster two clarified the areas in which making relationships is needed and emphasised both existing and new relationships. Cluster three put more emphasis on individuality of programmes, considering person's preferences and abilities rather than disabilities. Respecting and treating the person well, a home like atmosphere and accessibility for all service users were considered as the main points in cluster four. In order to promote independent living for people with ABI, cluster five included development of extensive linkages and networks with community. The clusters and their completed descriptions are presented below.

Cluster two: Relationships

BRIEF DESCRIPTION: The service is aware of and understands the importance of relationships. It works to support and develop existing and new relationships. Real opportunities are provided to develop relationship roles in different areas such as work, education, and recreation.

Sub-cluster 2.1: The service is aware of and understands the importance of a range of relationships in the lives of service users.
Sub-cluster 2.2: The service develops and supports existing and new relationships.
Sub-cluster 2.3: The service works to provide real opportunities for relationship roles to develop in areas such as work, education, and recreation.

Cluster three: Person centred approaches and planning

BRIEF DESCRIPTION: The service knows its service users very well and responds to their strengths and preferences in a highly individual way. Programmes are planned based on each service user's needs and aspirations.

Sub-cluster 3.1: The service knows its service users very well. Sub-cluster 3.2: The service focuses on the service users’ strengths and abilities rather than disabilities. Sub-cluster 3.3: The service plans and provides programmes based on each individual service user. Sub-cluster 3.4: The service closely follows the needs, aspirations, and preferences of the service users.
Cluster four: Service environment culture and atmosphere BRIEF DESCRIPTION: The service is provided in a comfortable welcoming friendly and home like atmosphere. Service users are treated with consideration and respect. The service is accessible for all stakeholders.
Sub-cluster 4.1: The service setting is comfortable and home-like. Sub-cluster 4.2: The service is accessible for people with acquired brain injury and other stakeholders. Sub-cluster 4.3: The service atmosphere is friendly, welcoming, and respectful.
Cluster five: Community based practices BRIEF DESCRIPTION: Many service practices are based in the community. The service has developed linkages and networks with the community that promote independent living for service users.
Sub-cluster 5.1: The service practices are located in community settings. Sub-cluster 5.2: The service has well-developed linkages and networks with community resources. Sub-cluster 5.3: The service promotes independent living in the community.

Cluster six title had a minor change from ‘Skills development’ to ‘Development of skills’. The results from the step four analysis demonstrated two sub-clusters which were kept as they were. However, each of the five components of the first sub-cluster of the step three, including ‘Social skills, Occupational skills, Skills to access community resources, Skills to minimise risk, and Financial management skills’ were transformed to make independent sub-clusters in the fourth step. Therefore, the number of the sub-clusters was increased from two in the third step to six in the fourth step to include the broader concept. This new arrangement simplified the next stage of the study (assigning priority weight to sub-clusters). The cluster description also was modified to capture a broader and clearer concept. The final result for cluster six is presented as follows.

Cluster six: Development of skills BRIEF DESCRIPTION: The service focuses on the development of individual skills and abilities that facilitate community integration. These include encouraging and developing social skills, occupational skills, skills to access community resources, and skills to minimise risk. The service works to increase knowledge in the community about people with acquired brain injury.
Sub-cluster 6.1: The service encourages and provides opportunities for the development of social skills. Sub-cluster 6.2: The service encourages and provides opportunities for the development of occupational skills. Sub-cluster 6.3: The service encourages and provides opportunities for the development of skills to access community resources. Sub-cluster 6.4: The service encourages and provides opportunities for the development of skills to minimise risk. Sub-cluster 6.5: The service encourages and provides opportunities for the development of financial management skills. Sub-cluster 6.6: The service enhances knowledge in the community about people with ABI.

Although the brief description for the cluster seven was modified, the title for the cluster ‘Support for service’ was not changed. The sub-cluster domains of the seventh cluster of the third step included Natural support (volunteers, advocates, peers), Specialised support (employment supports, counselling and family interventions, programme management and other special services), and that Staff have certain positive personal qualities, were modified and expanded as three independent sub-clusters in the fourth step. The final results for cluster seven, brief description, and its sub-clusters demonstrated as follows:

Cluster seven: Support for service users BRIEF DESCRIPTION: The service promotes a range of support people to enable service users to live in the community. Staff employed by the service have skills and personal qualities that are appropriate for working with service users.

Sub-cluster 7.1: The service promotes the development of occupation, health, education, and social engagement of service users through natural support such as volunteers, advocates, and peers.

Sub-cluster 7.2: The service provides appropriate specialist support to promote community integration such as employment support, counselling and family interventions, and clinical services.

Sub-cluster 7.3: The service employs staff who have a positive mix of skills, experiences, and personal qualities.

Table 4.2. The Changes in the Clusters and Sub-clusters from Step Three to Step Four

	Results of step three	Results of step four
Cluster one	Collaboration	Working together
Sub-cluster 1.1	The service works closely with family and friends of service users	The service works closely with family and friends of service users.
Sub-cluster 1.2	The service staff work as a team	The service staff work as a team.
Sub-cluster 1.3	The service accesses and works collaboratively with community services	The service accesses and works collaboratively with community services.
Sub-cluster 1.4	The service works cooperatively with advocacy groups	The service works cooperatively with advocacy groups.
Cluster two	Relationships	Relationships
Sub-cluster 2.1	The service is aware and understands the importance of a range of relationships in the lives of service users	The service is aware and understands the importance of a range of relationships in the lives of service users.
Sub-cluster 2.2	The service supports and develops existing and new relationships	The service develops and supports existing and new relationships.
Sub-cluster 2.3	The service works to provide real opportunities for relationship roles to develop in areas such as work, education, and recreation.	The service works to provide real opportunities for relationship roles to develop in areas such as work, education, and recreation.

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Table 4.2 continued

	Results of step three	Results of step four
Cluster three	Person centred approaches and planning	Person centred approaches and planning
Sub-cluster 3.1	The service knows its service users very well.	The service knows its service users very well.
Sub-cluster 3.2	The service focuses on the service users’ strengths and abilities rather than disabilities	The service focuses on the service users’ strengths and abilities rather than disabilities.
Sub-cluster 3.3	The service plans and provides programmes based on each individual service user.	The service plans and provides programmes based on each individual service user.
Sub-cluster 3.4	The service closely follows the needs, aspirations and preferences of the service users.	The service closely follows the needs, aspirations, and preferences of the service users.
Cluster four	Service environment, culture, and atmosphere	Service environment, culture, and atmosphere
Sub-cluster 4.1	The service setting is comfortable and home-like	The service setting is comfortable and home-like.
Sub-cluster 4.2	The service is accessible for people with acquired brain injury and other stakeholders.	The service is accessible for people with acquired brain injury and other stakeholders.
Sub-cluster 4.3	The service atmosphere is friendly, welcoming, and respectful.	The service atmosphere is friendly, welcoming, and respectful.
Cluster five	Community based practices	Community based practices
Sub-cluster 5.1	The service practices are located in community settings.	The service practices are located in community settings.
Sub-cluster 5.2	The service has well-developed linkages and networks with community resources.	The service has well-developed linkages and networks with community resources.
Sub-cluster 5.3	The service promotes independent living in community**.**	The service promotes independent living in the community.

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Table 4.2 continued

	Results of step three	Results of step four
Cluster six	Skills development	Development of skills
Sub-cluster 6.1	The service encourages and provides opportunities for the development of: a. Social skills b. Occupational skills c. Skills to access commun*ity resources* d. Skills to minimise risk e. Financial management skills.	The service encourages and provides opportunities for the development of *Social skills.*
Sub-cluster 6.2	The service enhances knowledge in the community about people with ABI.	The service encourages and provides opportunities for the development of *Occupational skills.*
Sub-cluster 6.3		The service encourages and provides opportunities for the development of *Skills to access community resources.*
Sub-cluster 6.4		The service encourages and provides opportunities for the development of *Skills to minimise risk.*
Sub-cluster 6.5		The service encourages and provides opportunities for the development of *Financial management skills.*
Sub-cluster 6.6		The service enhances knowledge in the community about people with ABI.

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Table 4.2-continued

	Results of step three	Results of step four
Cluster seven	Support for service users	Support for service users
Sub-cluster 7.1	The service encourages / promotes the development of occupation, health, education, and social engagement of service users through: a. Natural support (volunteers, advocates, peers). b. Specialised support (employment supports, counselling and family interventions, programme management and other special services) c. Staff have certain positive personal qualities.	The service promotes the development of occupation, health, education, and social engagement of service users through natural support such as volunteers, advocates, and peers.
Sub-cluster 7.2		The service provides appropriate specialist support to promote community integration such as employment support, counselling and family interventions, and clinical services.
Sub-cluster 7.3		The service employs staff who have a positive mix of skills, experiences, and personal qualities.

4.2.3 Conclusion.

In conclusion, this stage used the opinions of 28 participants regarding community integration programme characteristics to create a framework. After completion of this stage, seven clusters and their brief descriptions, and 26 sub-clusters were prepared for use in the second stage of this study to identify participants' opinions about the priority weighting of clusters and sub-clusters.

4.3 Stage Two: Reviewing Programme Characteristics and Examining their Importance

Stage one of the study developed a list of characteristics of programmes which aim to help adults with ABI achieve community integration. Seven clusters and 26 sub-clusters were determined based on the stakeholders' opinions. In the second stage, programme characteristics were clarified and their importance was examined by the participants.

4.3.1 Method.

MAU (Camasso & Dick, 1993; Lewis et al., 2003) was used to find a priority weight for each cluster and sub-cluster. In this method, the participants were asked to review and rank the clusters and sub-clusters. The 37 participants in the previous study were approached to complete a survey via internet. If they were not familiar with the internet or had no access to it, they were invited to attend a semi-structured interview. Similar to the previous stage, an introductory letter, a survey form and a semi-structured interview framework were prepared. A summary of the results of the previous stage, the aim and process of the current study and all details about what was asked from the participants were included in the introductory letter (Appendix M). It was also explained that the clusters and sub-clusters in the survey were not presented in any particular order. The survey form (Appendix N) included instructions to rank the clusters and sub-clusters, the seven clusters on a separate page and each cluster and its sub-clusters in following pages. The participants were requested firstly to look over each cluster and its brief description (ignoring the sub-clusters for now) and to allocate a number from one (highest importance) to seven (lowest importance) to indicate the importance of each cluster among the seven clusters. Secondly, they were requested to allocate a number to indicate sub-cluster priority within each cluster from one (highest importance) to X (lowest importance) based on the number of the sub-clusters in the cluster.

An electronic copy of the introductory letter and survey form were sent to participants who had access to the internet including researchers, practitioners, policymakers and some family members by electronic post. The other group of participants (people with ABI and some family members) who were not familiar with the internet also received the introductory letters and some additional information regarding the semi-structured interviews including how to prepare for the semi-structured interviews, venue for the interview, and how to contact the researcher to determine a convenient time via post. An interview timetable was prepared based on times that were convenient for the participants.

A framework was prepared for the semi-structured interviews. The semi-structured interviews included an introduction section and then the participants were asked to review and rank the clusters and sub-clusters. In the introductory section, the previous study and its results were reviewed then the current study's aim and process were explained. To rank the clusters and sub-clusters, 33 cards were prepared for the semi-structured interview (Appendix O). They included the title and description of each cluster (seven cards) and sub-cluster (26 cards). During the interview, the participants were requested to read the cards and make comments if something was not clear. If the participants had difficulty with reading, the interviewer (the researcher) read the cards aloud. Participants were then asked to sort the cards based on their priority from top (very important) to bottom (important). First, the clusters and then the sub-clusters within each cluster were sorted. At the end of interview, the interviewees were asked to review the ranking for final confirmation. To prevent any bias, the interviewer avoided making any comments to the interviewees while they were ranking the clusters and the sub-clusters.

The data (ranks for the clusters and the sub-clusters) collected from the surveys and interviews, were analysed to find the clusters' priority weights and then the sub-clusters' priority weights were calculated (Brennan & Anthony, 2000; Camasso & Dick, 1993; Keeney & Raiffa, 1976; Lewis et al., 2003). An average of the ranks for each cluster across the Participant Groups was calculated. Then, the average for each cluster was revised from seven (total number of clusters) to determine the cluster weight. The seven cluster weights were summed together. The final weight for each cluster was calculated by dividing the cluster's weight for each cluster by the sum of all seven cluster weights. The cluster final weight demonstrated the importance of the cluster across the all clusters.

To calculate the priority weights for the sub-clusters, an average rank for each sub-cluster within its cluster was calculated. It was then revised from numbers of sub-clusters in the cluster. All the revised priorities for the sub-clusters in the cluster were summed. Each sub-cluster's revised rank was divided by the sum of all the sub-clusters in the cluster in order to determine the sub-cluster weight. The sub-cluster weight comprised the importance of the sub-cluster across the sub-clusters in each cluster. The weights of the sub-clusters in each cluster summed to one. The final weight for each sub-cluster was calculated by multiplying the weight for the sub-cluster by the weight for the final cluster. The sub-cluster final weight showed the importance of the sub-cluster across the all sub-clusters (Brennan & Anthony, 2000; Camasso & Dick, 1993; Keeney & Raiffa, 1976; Lewis et al., 2003). For example, to calculate final score weight for cluster one and sub-cluster one, the following calculations were needed. The cluster's total average rank was 3.3 (Table 4.3). The cluster's weight was calculated as 3.7 (7 - 3.3 = 3.7) (Table 4.4). The sum of all seven reversed rankings was 21.1 (3.7 + 3.5 + 4.8 + 2.9 + 1.6 + 2.6 + 2.0 = 21.1) (Table 4.4). The final cluster weight for cluster one was calculated as 0.175 (3.7 ÷ 21.1 = 0.175). The next step was calculating weight for sub-cluster one of the cluster one. The total average rank for sub-cluster one was 2.0 (Table 4.3). The number of sub-clusters in cluster one was 4.0. Therefore, the revised rank for this sub-cluster was 4.0-2.0 =2.0. The sum of all four sub-clusters reversed rank in the cluster was 2.0 + 2.0 + 1.6 + 0.5 = 6.1 (Table 4.4). The weight for the sub-cluster was calculated as 0.328 (2.0 ÷ 6.1 = 0.328). The final weight for sub-cluster one of cluster one (Final cluster weight × sub-cluster weight) was 0.175 × 0.328 = 0.057. This means sub-cluster one contributes 5.7% of the total score across all clusters.

4.3.2 **Results and discussion.**

Thirty six out of 37 potential participants answered the surveys or participated in the semi-structured interviews. Different groups of participants ranked the clusters and sub-clusters very differently (Table 4.3). Except for practitioners, all groups of participants ranked cluster three ‘Person centred approaches and planning’ as the cluster with the highest importance. Clusters five ‘Community based practices’ and seven ‘Support for service users’ were mostly considered the least important clusters. However, on average the researchers ranked cluster six ‘Development of skills’ as the least important cluster. The average scores awarded to clusters by participants showed that the researchers believed that cluster three ‘Person centred approaches and planning’ had the highest priority (average rank = 1), while they ranked clusters five ‘Community based practices’ and six ‘Development of skills’ as the least important clusters (average rank = 5.8). The practitioners had a different view of the clusters. They ranked cluster seven ‘Support for service users’ lowest (average rank = 5.5) and cluster two ‘Relationships’ highest (average rank = 2.3). Cluster five ‘Community based practices’ was introduced as the least important cluster (average rank = 5.5) by policy makers, while they believed cluster three ‘Person centred approaches and planning’ had the highest priority (average rank = 1.3) among the clusters. The family members ranked cluster five ‘Community based practices’ as the least important cluster (average rank = 6.1), and ranked cluster three ‘Person centred approaches and planning’ as the most important cluster (average rank = 2.5). People with ABI selected cluster seven ‘Support for service users’ (average rank = 5.2) and cluster three ‘Person centred approaches and planning’ (average rank = 3.0) as the least and the most important cluster, respectively.

Table 4.3. Comparison of Participants' Ranking of Clusters and Sub-clusters

Cluster and Sub-cluster	Average rank					
	Researchers n=6	Practitioners n=7	Policy makers n=6	Family members n=9	People with ABI n=8	Total n=36
Cluster one: Working together	3.0	3.5	3.7	3.2	3.3	3.3
1. The service works closely with family and friends of service users	1.3	1.8	1.8	2.5	2.8	2.0
2. The service staff work as a team.	2.5	2.2	1.5	1.6	2.5	2.0
3. The service accesses and works collaboratively with community services.	2.5	2.3	2.7	2.2	2.3	2.4
4. The service works cooperatively with advocacy groups.	3.8	3.7	4.0	3.7	2.3	3.5
Cluster two: Relationships	4.5	2.3	3.7	3.5	3.7	3.5
1. The service is aware and understands the importance of a range of relationships in the lives of service users.	1.3	2.0	1.3	1.6	2.0	1.6
2. The service develops and supports existing and new relationships.	1.8	1.8	2.0	2.1	2.0	1.9
3. The service works to provide real opportunities for relationship roles to develop in areas such as work, education, and recreation.	3.0	2.2	2.7	2.3	2.0	2.4

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Table 4.3 continued

Cluster and Sub-cluster	Average rank Researchers n=6	Practitioners n=7	Policy makers n=6	Family members n=9	People with ABI n=8	Total n=36
Cluster three: Person centred approaches and planning	1.0	3.3	1.3	2.5	3.0	2.2
1. The service knows its service users very well.	2.5	2.3	2.8	1.9	3.7	2.6
2. The service focuses on service users’ strengths and abilities rather than disabilities.	1.8	2.7	2.5	3.0	2.3	2.5
3. The service plans and provides programmes based on each individual service user.	2.5	2.8	2.7	2.7	1.3	2.4
4. The service closely follows the needs, aspirations, and preferences of the service users.	3.3	2.2	2.0	2.4	2.7	2.5
Cluster four: Service environment, culture, and atmosphere	3.8	4.5	5.3	3.1	3.8	4.1
1. The service setting is comfortable and home-like.	2.8	2.5	2.5	1.9	2.2	2.4
2. The service is accessible for people with acquired brain injury and other stakeholders.	1.5	2.0	1.8	2.0	1.8	1.8
3. The service atmosphere is friendly, welcoming, and respectful.	1.8	1.5	1.7	2.1	2.0	1.8

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Table 4.3 continued

Cluster and Sub-cluster	Average rank					
	Researchers n=6	Practitioners n=7	Policy makers n=6	Family members n=9	People with ABI n=8	Total n=36
Cluster five: Community based practices	5.8	5.0	5.5	6.1	4.8	5.4
1. The service practices are located in community settings.	2.5	1.7	2.2	2.0	2.2	2.1
2. The service has well-developed linkages and networks with community resources.	1.8	2.7	2.5	1.9	1.8	2.1
3. The service promotes independent living in the community.	1.8	1.7	1.3	2.1	2.0	1.8
Cluster six: Development of skills	5.8	3.8	3.7	4.4	4.2	4.4
1. The service encourages and provides opportunities for the development of *Social skills.*	1.8	1.8	2.0	2.3	3.8	2.3
2. The service encourages and provides opportunities for the development of *Occupational skills.*	3.0	3.5	3.7	2.6	2.8	3.1
3. The service encourages and provides opportunities for the development of *Skills to access community resources.*	3.0	3.5	2.8	3.4	3.3	3.2
4. The service encourages and provides opportunities for the development of *Skills to minimise risk.*	3.8	2.3	2.3	3.6	4.5	3.3
5. The service encourages and provides opportunities for the development of *Financial management skills.*	4.8	4.7	5.0	3.9	2.5	4.2
6. The service enhances knowledge in the community about people with ABI.	4.8	5.2	5.2	5.1	4.0	4.8

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Table 4.3 continued

Cluster and Sub-cluster	Average rank					
	Researchers n=6	Practitioners n=7	Policy makers n=6	Family members n=9	People with ABI n=8	Total n=36
Cluster seven: Support for service users	4.3	5.5	4.8	5.2	5.2	5.0
1. The service promotes the development of occupation, health, education, and social engagement of service users through natural support such as volunteers, advocates, and peers.	2.0	2.7	1.8	2.1	2.2	2.2
2. The service provides appropriate specialist support to promote community integration such as employment support, counselling and family interventions, and clinical services.	2.3	1.8	2.2	2.4	1.5	2.0
3. The service employs staff who have a positive mix of skills, experiences, and personal qualities.	1.8	1.5	2.0	1.4	2.3	1.8

Comparing the average ranking scores in seven clusters (Table 4.3) showed that the lowest score for cluster one ‘Working together’ was from policy makers (average rank = 3.7) and the highest score was given by the researcher group (average rank = 3.0). The results also showed that the practitioners had a very different view over the cluster priority than the researchers. The practitioners’ average rank for cluster two ‘Relationships’ was 2.3 while the researchers ranked it as 4.5. Another example of differences between the researchers and the practitioners’ opinions was for ranking cluster three ‘Person centred approaches and planning’. While the researchers determined the highest rank (1.0) for cluster three, the practitioners ranked it the lowest compared to the other participants (average rank = 3.3). Practitioners gave an average rank of 4.5 to cluster four ‘Service environment, culture, and atmosphere’ while family members ranked it lower than the other participants (average rank = 3.1). Cluster five ‘Community based practices’ was less important in family members’ view (average rank = 6.1), people with ABI saw it an important cluster in community integration (average rank = 4.8). Researchers and policy makers had different ideas about cluster six ‘Development of skills’. Researchers had given 5.8 as the lowest rank among the participants. This was while the policy makers ranked cluster six as 3.7 (the highest) between the clusters. Cluster seven ‘Support for service users’ was more important in the researchers’ opinion than for other participants (average rank = 4.3).

Based on priority weights calculated in this stage of the study, a new order was considered for the clusters and sub-clusters (Table 4.4). The final weights for clusters across all of the clusters ranged between 0.076 (7.6%) and 0.227 (22.7%). In this arrangement, cluster three ‘Person centred approach and planning’ was calculated as the first theme with final weight 0.227 (22.7%) and cluster one ‘Working together’ received the second highest priority weight as 0.175 (17.5%). Cluster two ‘Relationships’ with priority weight of 0.166 (16.6%) was calculated to be the third cluster. Cluster four ‘Service environment, culture, and atmosphere’ was the fourth important cluster with the priority weight 0.137 (13.7%) followed by cluster six ‘Development of skills’ and cluster seven ‘Support for service users’ which became cluster five with priority weight 0.123 (12.3%) and cluster six with priority weight

0.095 (9.5%), respectively. Finally, cluster five ‘Community based practice’ was located as cluster seven with priority weight of 0.076 (7.6%).

Table 4.4. Calculation of Clusters and Sub-clusters Priority Weights

Cluster	Cluster priority	Average rank	Cluster weight[a]	∑ of cluster weights	Final cluster weight[b]	Sub-cluster	Sub-cluster priority	Average rank	Revise from numbers of Sub-cluster in cluster	∑ all reversed sub-clusters in the cluster	Sub-cluster weight[c]	Final sub-cluster weight[d]
One	Two	3.3	3.7	21.1	0.175	One	One	2.0	2.0	6.1	0.328	0.057
						Two	One	2.0	2.0	6.1	0.328	0.057
						Three	Two	2.4	1.6	6.1	0.262	0.046
						Four	Three	3.5	0.5	6.1	0.082	0.014
Sum											1.0	
Two	Three	3.5	3.5	21.1	0.166	One	One	1.6	1.4	3.1	0.452	0.075
						Two	Two	1.9	1.1	3.1	0.355	0.059
						Three	Three	2.4	0.6	3.1	0.194	0.032
											1.0	
Three	One	2.2	4.8	21.1	0.227	One	Three	2.6	1.4	6.0	0.233	0.053
						Two	Two	2.5	1.5	6.0	0.250	0.057
						Three	One	2.4	1.6	6.0	0.267	0.061
						Four	Two	2.5	1.5	6.0	0.250	0.057
Sum											1.0	

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Table 4.4 continued

Cluster	Cluster priority	Average rank	Cluster weight[a]	∑ of cluster weight	Final cluster weight[b]	Sub-cluster	Sub-cluster priority	Average rank	Revise from numbers of Sub-cluster in cluster	∑ all reversed sub-clusters in the cluster	Sub-cluster weight[c]	Final sub-cluster weight[d]
Four	Four	4.1	2.9	21.1	0.137	One	Two	2.4	0.6	3.0	0.200	0.027
						Two	One	1.8	1.2	3.0	0.400	0.055
						Three	One	1.8	1.2	3.0	0.400	0.055
Sum											1.0	
Five	Seven	5.4	1.6	21.1	0.076	One	Two	2.1	0.9	3.0	0.300	0.023
						Two	Two	2.1	0.9	3.0	0.300	0.023
						Three	One	1.8	1.2	3.0	0.400	0.030
Sum											1.0	
Six	Five	4.4	2.6	21.1	0.123	One	One	2.3	3.7	15.1	0.245	0.030
						Two	Two	3.1	2.9	15.1	0.192	0.024
						Three	Three	3.2	2.8	15.1	0.185	0.023
						Four	Four	3.3	2.7	15.1	0.179	0.022
						Five	Five	4.2	1.8	15.1	0.119	0.015
						Six	Six	4.8	1.2	15.1	0.079	0.010
Sum											1.0	

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Table 4.4 continued

Cluster	Cluster priority	Average rank	Cluster weight[a]	∑ of cluster weight	Final cluster weight[b]	Sub-cluster	Sub-cluster priority	Average rank	Revise from numbers of Sub-cluster in cluster	∑ all reversed sub-clusters in the cluster	Sub-cluster weight[c]	Final sub-cluster weight[d]
Seven	Six	5	2	21.1	0.095	One	Three	2.2	0.8	3.0	0.267	0.025
						Two	Two	2.0	1.0	3.0	0.333	0.032
						Three	One	1.8	1.2	3.0	0.400	0.038
Sum					1.0						1.0	

[a]Cluster weight = Total number of clusters (7) - Cluster average rank; [b]Final cluster weight = Dividing each cluster weight by sum of all clusters weights; [c]Sub-cluster weight = Divided the sub-cluster revised rank by the sum of all the sub-clusters revised rank in the cluster; [d]Sub-cluster final weight = Final cluster weight ×Sub-cluster weight in the cluster

During this stage of the study, the sub-clusters were also given priority weights (Table 4.4). The order of the sub-clusters in each cluster was changed based on their final weights. The final weights for each sub-cluster across all sub-clusters ranged between 0.010 (1.0%) and 0.075 (7.5%). A detailed explanation of the results and changes in order of the sub-clusters are presented below. The cluster numbers mentioned below are based on the new order.

Cluster one: Person centred approaches and planning

- Sub-cluster three ‘The service plans and provides programmes based on each individual service user’ obtained the highest final weight as 0.061 (6.1%) in cluster one.
- Both sub-clusters two ‘The service focuses on service users’ strengths and abilities rather than disabilities’ and four ‘The service closely follows the needs, aspirations, and preferences of the service users’ were ranked as the second important sub-clusters in cluster one with final weight as 0.057 (5.7%).
- Sub-cluster one ‘The service knows its service users very well’ received the least final weight (0.053 = 5.3%) within the sub-clusters in this cluster.

Cluster two: Working together

- Both sub-clusters one ‘The service works closely with family and friends of service users’ and two ‘The service staff work as a team’ were scored high in this cluster with a final weight of 0.057 (5.7%).
- Sub-cluster three ‘The service accesses and works collaboratively with community services’ was repositioned as the second sub-cluster with a final weight of 0.046 (4.6%).
- Sub-cluster four ‘The service works cooperatively with advocacy groups’ became the third sub-cluster (0.014 = 1.4%).

Cluster three: Relationships

- The three sub-clusters ‘The service is aware and understands the importance of a range of relationships in the lives of service users’ (0.075 = 7.5%), ‘The service develops and supports existing and new relationships’ (0.059 = 5.9%) and ‘The service works to provide real opportunities for relationship roles to develop in areas such as work, education, and recreation' (0.032 = 3.2%) kept their previous order in the cluster.

Cluster four: Service environment, culture, and atmosphere

- Both sub-clusters two 'The service is accessible for people with acquired brain injury and other stakeholders' and three 'The service atmosphere is friendly, welcoming, and respectful' together were scored high in cluster four (0.055 = 5.5%).
- Sub-cluster one 'The service setting is comfortable and home-like' was ranked as the second important sub-cluster in cluster four (0.027 = 2.7%).

Cluster five: Development of skills

- The final weight for the six sub-clusters had a small range between 0.010 to 0.030 and their order was not changed.

Cluster six: Support for service users

- Sub-cluster three 'The service employs staff who have a positive mix of skills, experiences, and personal qualities' was shifted to be the first sub-cluster (0.038 = 3.8%).
- Sub-cluster two 'The service provides appropriate specialist support to promote community integration such as employment support, counselling and family interventions, and clinical services' remained in the second position (0.032 = 3.2%).
- Sub-cluster one 'The service promotes the development of occupation, health, education, and social engagement of service users through natural support such as volunteers, advocates, and peers' was relocated as the third sub-cluster (0.025 = 2.5%).

Cluster seven: Community based practices

- Sub-cluster one 'The service promotes independent living in the community' was weighted as the most important sub-cluster in this cluster (0.030 = 3.0%).
- Both sub-cluster two 'The service practices are located in community settings' and sub-cluster three 'The service has well-developed linkages and networks with community resources' were located as the second sub-cluster (0.023 = 2.3%).

At the end of this stage, the seven clusters and their 26 sub-clusters with their new order (Table 4.5) were ready to be used in the next stage of the study for final review to design an instrument to evaluate community integration programmes for people with ABI.

Table 4.5. New Order of Clusters and Sub-clusters Based on Results of Stage Two

• Cluster one: Person centred approaches and planning Sub-cluster 1.1: The service plans and provides programmes based on each individual service user. Sub-cluster 1.2: The service focuses on service users' strengths and abilities rather than disabilities. The service closely follows the needs, aspirations, and preferences of the service users. Sub-cluster 1.3: The service knows its service users very well.
• Cluster two: Working together Sub-cluster 2.1: The service works closely with family and friends of service users. The service staff work as a team. Sub-cluster 2.2: The service accesses and works collaboratively with community services. Sub-cluster 2.3: The service works cooperatively with advocacy groups.

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Table 4.5 continued

- Cluster three: Relationships

Sub-cluster 3.1: The service is aware and understands the importance of a range of relationships in the lives of service users.

Sub-cluster 3.2: The service develops and supports existing and new relationships.

Sub-cluster 3.3: The service works to provide real opportunities for relationship roles to develop in areas such as work, education, and recreation.

- Cluster four: Service environment, culture, and atmosphere

Sub-cluster 4.1:

The service is accessible for people with acquired brain injury and other stakeholders.

The service atmosphere is friendly, welcoming, and respectful.

Sub-cluster 4.2: The service setting is comfortable and home-like.

- Cluster five: Development of skills

Sub-cluster 5.1: The service encourages and provides opportunities for the development of *Social skills.*

Sub-cluster 5.2: The service encourages and provides opportunities for the development of *Occupational skills.*

Sub-cluster 5.3: The service encourages and provides opportunities for the development of *Skills to access community resources.*

Sub-cluster 5.4: The service encourages and provides opportunities for the development of *Skills to minimise risk.*

Sub-cluster 5.5: The service encourages and provides opportunities for the development of *Financial management skills.*

Sub-cluster 5.6: The service enhances knowledge in the community about people with ABI

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Table 4.5 continued

- Cluster six: Support for service users Sub-cluster 6.1: The service employs staff who have a positive mix of skills, experiences, and personal qualities. Sub-cluster 6.2: The service provides appropriate specialist support to promote community integration such as employment support, counselling and family interventions, and clinical services. Sub-cluster 6.3: The service promotes the development of occupation, health, education, and social engagement of service users through natural support such as volunteers, advocates, and peers.
- Cluster seven: Community based practices Sub-cluster 7.1: The service promotes independent living in the community. Sub-cluster 7.2: The service practices are located in community settings The service has well-developed linkages and networks with community resources

4.3.3 Conclusion.

The clusters and sub-clusters were re-arranged using the priority weights which were calculated based on the average participants' rankings of relative importance. The framework also included a number of sub-clusters under each cluster which, in turn, were given priority weights in that cluster. The framework was then ready to be used in the next stage of the study to be reviewed by the Expert Panel including ten people as a sub-group of the Participant Groups (Refer to Section 1.5) for the final revisions.

4.4 Stage three: Final Development of the Evaluation Instrument

In stage three, the clusters and sub-clusters from the previous stage were reviewed by the Expert Panel and modified to final themes and attributes. Indicators and sources of evidence for each attribute were defined. Results were compared with a number of ABI measures identified from the literature. This was the final stage in the development of the instrument which was named as Programme Assessment of Community Integration Attributes (PACIA).

4.4.1 Method.

To achieve final confirmation on the results from stage two, the Expert Panel reviewed the seven clusters and 26 sub-clusters. An introductory letter (Appendix P) was sent electronically to the Expert Panel before they attended a full day working meeting. The letter included results of the previous stage, a brief description about the full day working meeting, and the tasks for the meeting. The team task was to confirm clusters and sub-clusters (which were named as themes and attributes from this point), and to identify indicators which explained the attributes. The indicators were guides for the users to collect data when using the instrument. The project supervisor led the meeting.

The working meeting began with a presentation by the project researcher about the study phases, aims, and results achieved since the start of the project. The aims of the meeting and tasks were reviewed followed by a six-hour discussion on the instrument themes, attributes and indicators. The Expert Panel's opinions were noted on wall paper as a record of the group discussion. Discussion continued until final agreement was achieved on each theme and attribute. The Expert Panel began by suggesting amendments to themes, descriptions, and attributes and then defined indicators for the attributes. This resulted in modified themes and attributes, and indicators.

After the meeting, a team including the project supervisor and the project researcher met several times to prepare a list of questions to be added to the instrument to help the user find sources of evidence for each attribute, to enable attributes to be rated. The questions were written based on the indicators defined by the Expert Panel.

4.4.2 **Results and discussion.**

The results and discussion are presented in two sections: reviewing of the themes and attributes and identification of indicators, and a comparison of this content with a number of ABI instruments from the literature.

1. Review of themes and attributes and identification of indicators

The Expert Panel reviewed the results of the previous stage including seven clusters and sub-clusters and agreed to use terms ‘theme’ and ‘attribute’ instead of ‘cluster’ and ‘sub-cluster’ for the instrument contents. They modified the themes, their descriptors and attributes, and then identified indicators for the attributes. Except for theme one ‘Person centred approaches and planning’, all the other theme descriptors or their attributes were modified.

Theme 1: Person centred approaches and planning

No modification was needed for this theme and its descriptor or attributes.

Theme 2: Working together

The theme name was not modified. Service users were added to the range of relevant stakeholders in the theme description and also added to attribute 2.1. Attribute 5.6 that related to enhancing knowledge in the community was moved to theme 2 as an additional attribute and also mentioned in the theme description.

Theme 3: Relationships

The theme name was not modified. Attribute 3.2 was modified with replacement of the phrase ‘develops and supports’ with ‘facilitates and supports’.

Theme 4: Service environment, culture, and atmosphere

The theme name was modified as ‘Service setting and atmosphere’. Also, its descriptor was amended by removing the term ‘home-like’ and presenting it as ‘The service is provided in a comfortable, welcoming, and friendly manner. Service users are treated with consideration and respect. The service is accessible for all stakeholders’.

Attribute 4.1 the phrase ‘people with acquired brain injury’ was rephrased as ‘service users’.

Attribute 4.2 was modified by adding the word ‘comfortable’.

Attribute 4.3 ‘the service setting is comfortable and home-like’ was modified by removing the term ‘home-like’ as ‘The service setting is appropriate to the service purpose’.

Theme 5: Development of skills

The theme name was not modified. Attribute 5.6 was moved to theme two ‘Working together’ as attribute 2.5 (an additional attribute for theme two).

Attributes 5.1 to 5.5 were combined to make a single attribute ‘The service encourages and provides opportunities for the development of skills that are relevant to the needs of service users and that improve community integration’.

Theme 6: Support for service users

Attribute 6.1was re-phrased as ‘The service ensures that staff have an appropriate mix of skills, experiences, and personal qualities’.

In Attribute 6.2, the word ‘assistive technology’ was removed as a part of ‘specialist support’ and the attribute was reworded as ‘The service provides appropriate specialist support including assistive technology to promote community integration such as employment support, counselling and family interventions, and clinical services’. Based on these modifications in the attributes, the description for theme six was amended by adding the phrase ‘and assistive technology’.

Theme 7: Community based practices

By removing Attribute 7.1, the number of attributes was reduced from three to two.

Attribute 7.2 was amended by adding the word ‘typical’ before ‘community setting’ as ‘The service practices are located in typical community settings’.

The descriptor for theme seven was modified based on the changes in the attributes to ‘Many service practices are based in typical community settings. The service has developed linkages and networks with the community that promote independent living for service users’.

Table 4.6 presents the number of indicators in each attribute of each theme which were agreed by the Expert Panel. Also, the number of sources of evidence prepared by the team (the project supervisor and the main researcher) based on the indicators are presented in this table. The number of the indicators and the sources of evidence for each attribute ranged between two and seven. The total number of indicators and the source of evidence were 89 and 84, respectively. Appendix Q presents themes, descriptors, attributes, indicators and source of evidence that resulted from this stage of the study.

Table 4.1. Number of Indicators and Source of Evidence in Each Attribute of Each Theme

	Theme one				Theme two					Theme three			Theme four			Theme five	Theme six			Theme seven		
	Attribute 1.1	Attribute 1.2	Attribute 1.3	Attribute 1.4	Attribute 2.1	Attribute 2.2	Attribute 2.3	Attribute 2.4	Attribute 2.5	Attribute 3.1	Attribute 3.2	Attribute 3.3	Attribute 4.1	Attribute 4.2	Attribute 4.3	Attribute 5.1	Attribute 6.1	Attribute 6.2	Attribute 6.3	Attribute 7.1	Attribute 7.2	Total
Number of Indicators	6	4	4	4	6	7	5	4	4	4	6	3	5	5	3	3	6	2	3	3	2	89
Number of Sources of Evidence	7	4	4	4	6	6	5	3	4	3	6	4	3	4	3	3	5	2	3	3	2	84

2. Comparison with ABI instruments

The main objective of PACIA is to examine programme processes rather than outcomes. Currently available community integration instruments usually evaluate outcomes of programmes for people with ABI rather than their content or the fidelity of programmes to a programme theory and/or principles. The instruments evaluate a wide range of outcomes ranging from functional changes on recovery, such as the Disability Rating Scale (Rappaport et al., 1982), and gross outcomes in the early acute medical treatment stage, such as the Glasgow Coma Scale (Jennett & Bond, 1975), to overall performance on activities of daily living, such as the Functional Independent Measure (Linacre et al., 1994). Some instruments examine the level of service the person needs, such as the Supervision Rating Scale (Boake, 1996), or the problems that the person may face as a result of ABI, such as the Agitated Behaviour Scale (Corrigan, 1989) and The Rancho Level of Cognitive Functioning Scale (Hagen, Malkmus, & Durham, 1972).

Reviews of literature including two systematic reviews on community integration outcomes for people with ABI (Reistetter & Beatriz, 2005; Salter et al., 2008) showed that the Community Integration Questionnaire (CIQ) was the most predominant, widely used and validated tool to measure community integration outcomes. The results from current research (Kuipers, Kendall, Fleming, & Tate, 2004; Lyttle, 2008) also suggest using the Community Integration Measure (CIM), Reintegration to Normal Living Index (RNLI), or the Sydney Psychological Re-integration Scale (SPRS) if subjective information is critical to the decision process. The CIQ, Craig Handicap Assessment Reporting Technique (CHART) and Brain Injury Community Rehabilitation Outcome scales (BICRO) are suggested (Corrigan & Bogner, 2004; Reistetter & Beatriz, 2005; Salter et al., 2008; Whiteneck et al., 1992) for collecting objective information for evaluating community integration.

No instruments were found to evaluate community integration programmes. The content of PACIA was compared with the most commonly used outcome measures. An overview of each of these measures is presented in the next paragraphs.

The CIQ was defined as a measure to evaluate community integration for people with ABI (Willer et al., 1993). It is aimed to measure impact of disability on community integration by measuring participation in home, social and community activities. The CIQ has 15 items which are divided into three subscales. These domains are home integration, social integration, and productivity. The first domain assesses home activity participation including shopping for groceries, meal preparation, household chores, child care, and planning social arrangements. The social integration domain is to evaluate participation in and outside the home in activities including paying bills, shopping, leisure activities, and social relationships. The productivity domain examines frequency of outside of home travelling for purposes such as employment, volunteer activities, and ongoing formal education.

Whiteneck et al. (1988) designed the CHART as a measure of level of participation for people with spinal cord injury in a community setting. The instrument included 27 questions which divided into five domains including mobility, social integration, physical independence, economic self sufficiency, and occupation. The newly revised version of the CHART also evaluates cognitive impairments to reflect common problems that occur with people with ABI (Mellick, Walker, Brooks, & Whiteneck, 1999). The CHART has 32 items in six domains to assess outcomes of community integration for people with ABI.

McColl, Davies, Carlson, Johnston, and Minnes (2001) developed the CIM based on a qualitative study and literature review on opinions of people with ABI about community integration (McColl et al., 1998). The CIM is a client-centred instrument to measure outcomes of community integration for people with ABI. It consists of ten items in four domains including general assimilation (conformity, orientation, and acceptance), social support (close and diffuse relationships), occupation (leisure, productivity) and independent living (personal independence, satisfaction with living arrangement). The CIM is a short and simple assessment which is focused on personal experience and demonstrates the level of involvement with tasks in home, socialising, and productivity or work (Linden, Crothers, O'Neill, & McCann, 2005).

The BICRO was originally designed by Powell and colleagues (1998) with 76 items. Then they revised it to 39 items as an instrument to evaluate outcomes of community integration for people with ABI. The BICRO-39 measures a variety of areas from activity performance to psychosocial issues and general participation including personal and social function problems experienced in living in the community by brain-injured patients. The 39 items are distributed in six domains consisting of personal care, mobility, self-organisation, socialising (contact partner, contact parents), psychological well-being, and productive employment domains. Although the CIQ and CHART, and BICRO are all focused on collecting objective information on community integration outcomes, based on evidence achieved from the only randomised control trial in community integration for people with acquired brain injury (Powell et al., 2002) the BICRO can achieve information which can not be collected using the CIQ or CHART.

Tate, Hodgkinson, Veerabangsa, and Maggiotto (1999) developed the Sydney Psychosocial Reintegration Scale (SPRS) as an instrument to evaluate psychological properties in community integration outcomes for people with ABI. Social, home and vocational roles for brain injured people were considered important in development of the SPRS. This instrument obtains subjective information and consists of 12 items which are focused on change from pre-injury rather than current capacity to perform. The SPRS obtains subjective information in12 items which are distributed in three domains including four items in occupational activities, four items in interpersonal relationships, and four items in independent living skills. The SPRS items have the ability to complete the CIQ domains (Kuipers et al., 2004).

The Reintegration to Normal Living Index (RNLI) was designed by Wood-Dauphinee and Williams (1987) and Wood-Dauphinee, Opzoomer, Williams, Marchand and Spitzer (1988) as an assessment of reintegration to the community for people with ABI. It focuses on subjective experience and consists of individual functional ability and personal autonomy. The basis for the instrument was definition of re-entering normal life and reorganising physical, psychological and social characteristics of living a normal life. The RNLI consists of 11 items which assess community integration outcomes in two domains; daily functions, including eight items, and perceptions of self which consists of three items.

Comparison of domains of the six outcome measurement tools with PACIA themes (Table 4.7) determined that all of the domains were considered in PACIA. As these instruments evaluate community integration outcomes for people with ABI, they did not focus on programme characteristics. The reviewed tools covered four of seven themes of PACIA. These themes were theme three ‘Relationships’, theme five ‘Development of skills’ theme six ‘Support for service users’, and theme seven ‘Community based practices’. The other three themes ‘Person centred approaches and planning’, ‘Working together’, and ‘Service setting and atmosphere’ were not included in any of the six outcome measures.

Based on the above literature review, most of these outcomes could map onto PACIA themes and attributes, however, PACIA focuses on the characteristics of process (organisational characteristics) that are likely to achieve these outcomes. In order to evaluate community integration programmes more comprehensively, PACIA and the outcome measures can be used concurrently. In this case, PACIA can be used as a set of independent variables against which outcomes (dependent variables) could be assessed.

4.4.3 **Conclusion.**

Minor changes for the instruments’ themes and attributes were suggested by the Expert Panel. Indicators and sources of evidence were defined and the instrument content was finalised at the end of this stage. Comparison of PACIA content with the current literature showed that most of the outcomes could map onto PACIA themes and attributes.

Table 1.2. Comparison of PACIA Themes with Domains in Community Integration Outcome Measures for ABI

PACIA	Theme one: Person centred approaches and planning	Theme two: Working together	Theme three: Relationships	Theme four: Service setting and atmosphere	Theme five: Development of skills	Theme six: Support for service users	Theme seven: Community based practices
Brain Injury Community Rehabilitation Outcome scales (BICRO)							
Socialising (contact partner, contact parents)	-	-	✓	-	-	-	-
Productive employment	-	-	-	-	✓	-	✓
Mobility	-	-	-	-	✓	-	-
Self-organisation	-	-	-	-	✓	-	-
Personal care	-	-	-	-	✓	-	-
Psychological well-being	-	-	-	-	-	✓	-

Continued on next page

Table 4.7 continued

PACIA	Theme one: Person centred approaches and planning	Theme two: Working together	Theme three: Relationships	Theme four: Service setting and atmosphere	Theme five: Development of skills	Theme six: Support for service users	Theme seven: Community based practices
Craig Handicap Assessment Reporting Technique (CHART)							
Social integration	-	-	✓	-	✓	-	-
Mobility	-	-	✓	-	✓	-	
Occupation	-	-	-	-	✓	-	✓
Cognitive independence	-	-	-	-	-	✓	-
Physical independence	-	-	-	-	-	✓	-
Economic self sufficiency	-	-	-	-	-	✓	-

Continued on next page

Table 4.7 continued

PACIA	Theme one: Person centred approaches and planning	Theme two: Working together	Theme three: Relationships	Theme four: Service setting and atmosphere	Theme five: Development of skills	Theme six: Support for service users	Theme seven: Community based practices
Community Integration Measure (CIM)							
Social support (close and diffuse relationships)	-	-	✓	-	-	✓	-
General assimilation (conformity, orientation, acceptance)	-	-	✓	-	-	-	-
Occupation (leisure, productivity)	-	-	-	-	✓	-	✓
Independent living (personal independence, satisfaction with living arrangement)	-	-	-	-	✓	-	✓
Community Integration Questionnaire (CIQ)							
Social Integration Section	-	-	✓	-	✓	-	-
Productive activities Section	-	-	-	-	✓	-	✓
Home Integration Section	-	-	-	-	✓	✓	-

Continued on next page

Table 4.7 continued

PACIA	Theme one: Person centred approaches and planning	Theme two: Working together	Theme three: Relationships	Theme four: Service setting and atmosphere	Theme five: Development of skills	Theme six: Support for service users	Theme seven: Community based practices
Reintegration to Normal Living Index (RNLI)							
Daily functions	-	-	✓	-	✓	-	✓
Perceptions of self	-	-	✓	-	✓	-	-
Sydney Psychosocial Reintegration Scale (SPRS)							
Inter-personal relations	-	-	✓	-	-	-	-
Occupational activity	-	-	-	-	✓	-	✓
Independent living	-	-	-	-	✓	-	✓

Note. Dashes indicate the items did not match with PACIA themes; Crosses indicate the items matched with PACIA themes.

4.5 Stage Four: Relative Importance of Themes and Attributes

In the previous stage, the Expert Panel finalised seven themes and their descriptors, 21 attributes with their indicators, and sources of evidence to evaluate community integration programmes for adults with ABI. As there were some changes/modifications to the themes and attributes, a modified Multi Attribute Utility (MAU) methodology was again used to determine the relative importance of the themes and attributes.

4.5.1 Method.

The Participant Groups, method of data collection and analysis of data followed Stage two (Section 4.3). The raw data were analysed and priority weights for each theme and attribute were determined.

4.5.2 Results and discussion.

All of the thirty seven people in Participant Groups completed and returned the surveys or participated in the semi-structured interviews. The participants' rankings for themes and attributes are presented in Table 4.8. Except for people with ABI who chose theme one 'Working together', all other Participant Groups ranked theme three 'Person centred approaches and planning' as the theme with the highest importance. The difference between the opinion of people with ABI and the other Participant Groups about the most important theme in community integration might be due to the fact that the people with ABI are the target and consumers of the programmes. Based on their experiences, they might have felt improvement in different aspects of their daily life as a result of appropriate team work. However, it seems that other Participant Groups, especially researchers and policy makers, based their ranking on their knowledge and understanding about ABI and related needs and believed that concentration on the consumers' needs and preferences could contribute to better outcomes for the community integration programmes.

The difference between participants' views was more obvious in choosing the least important theme. Practitioners and people with ABI who are directly and daily involved with the programmes marked 'support for service users' as the least important theme. Family group ranked 'community based practices' as the least important theme. It may be a result of the fact that people with ABI are more vulnerable (Cummins & Lau, 2003) and families may believe that community experiences are harmful for them. Another observation was that the policy makers considered ‘Service setting and atmosphere’ as the least important theme, while the family members and people with ABI believed that setting atmosphere is of importance for community integration. This is in parallel with findings in the literature that show the appropriateness and acceptability of a service for the service users are essential for the individual’s wellbeing (Cummins & Lau, 2003; Rook, 1984).

Another way to compare the ranks was comparison of the average ranking scores in the seven themes (Table 4.8). The highest score for theme three ‘Person centred approaches and planning’ was given by the researchers (average rank = 1.00) and the lowest score was given by the people with ABI (average rank = 4.33). As having a person centred approach is emphasised frequently in the literature (Mead & Bower, 2000) it is not surprising that the researchers gave a high priority to this theme. The people with ABI and practitioners had different opinions on ranking theme one ‘Working together’. The highest rank for this theme was given by people with ABI (average rank 2.00) while the practitioners ranked it lower than all other participants (average rank 4.83). The practitioners determined theme two ‘Relationships’ as the most important theme (average sore = 2.33). Possibly it is because practitioners are generally more involved daily with the service users. The researcher group ranked theme two as the lowest important theme. Theme four ‘Service setting and atmosphere’ was determined by all of the participants to be the theme of lowest importance, however, people with ABI ranked it higher than all other groups as they live in the service and the atmosphere of the service affects their lives directly. Family members and researchers had very different rankings for theme five ‘Community based practices’. Family members ranked theme five as 5.71 (the lowest between participants). Researchers had given 3.40 to theme five which was the highest ranking among the participants. Possibly this resulted from current interprofessional approaches toward interventions (Hall, 2005).

Table 1.3. Comparison of Participants' Ranking of Themes and Attributes

Theme and Attribute		Average rank					
		Researchers (n=6)	Practitioners (n=7)	Policy makers (n=6)	Family members (n=10)	People with ABI (n=8)	Total (n=37)
Theme one: Working together	Mean	4.00	4.83	3.67	3.29	2.00	3.49
	Range	3-6	2-7	2-6	1-7	1-3	1-7
1. The service works closely with the service user, family, and friends.	Mean	1.20	1.83	1.17	1.86	2.00	1.68
	Range	1-2	1-4	1-2	1-4	1-4	1-4
2. The service staff work as a team.	Mean	2.40	2.83	2.17	1.71	2.17	2.14
	Range	1-4	1-4	1-3	1-2	1-3	1-4
3. The service accesses, and works collaboratively with community services.	Mean	2.60	2.33	2.67	3.14	3.50	2.92
	Range	2-3	1-3	2-3	1-4	2-4	1-4
4. The service works cooperatively with advocacy groups.	Mean	4.20	4.17	4.33	3.50	3.50	3.84
	Range	3-5	3-5	4-5	1-5	1-5	1-5
5. The service enhances knowledge in the community about people with ABI.	Mean	4.60	3.83	4.67	4.79	3.83	4.43
	Range	4-5	1-5	4-5	4-5	2-5	1-5

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Table 4.8 continued

Theme and Attribute		Average rank Researchers (n=6)	Practitioners (n=7)	Policy makers (n=6)	Family members (n=10)	People with ABI (n=8)	Total (n=37)
Theme two: Relationships	Mean	4.20	2.33	3.67	2.79	3.50	3.16
	Range	2-6	1-5	2-6	1-7	2-6	1-7
1. The service is aware and understands the importance of a range of relationships in the lives of service users.	Mean	2.00	2.33	1.50	1.29	1.33	1.59
	Range	1-3	1-3	1-3	1-3	1-2	1-3
2. The service facilitates and supports existing and new relationships.	Mean	1.80	2.17	2.00	2.36	2.67	2.24
	Range	1-2	1-3	1-3	1-3	2-3	1-3
3. The service works to provide real opportunities for relationships to develop in areas such as work, education, and recreation.	Mean	2.20	1.50	2.50	2.36	2.00	2.16
	Range	1-3	1-2	2-3	2-3	1-3	1-3

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Table 4.8 continued

Theme and Attribute		Average rank					
		Researchers (n=6)	Practitioners (n=7)	Policy makers (n=6)	Family members (n=10)	People with ABI (n=8)	Total (n=37)
Theme three: Person centred approaches and planning	Mean Range	1.00 1-1	2.17 1-4	1.17 1-2	2.64 1-6	4.33 2-7	2.38 1-7
1. The service knows its service users very well.	Mean Range	2.80 1-4	3.17 2-4	1.83 1-4	1.64 1-3	2.67 1-4	2.24 1-4
2. The service focuses on service users' strengths and abilities rather than their disabilities.	Mean Range	2.80 1-4	2.50 1-4	2.50 1-4	2.79 1-4	2.17 1-4	2.59 1-4
3. The service plans and provides programmes based on each individual service user.	Mean Range	2.20 1-3	2.00 1-3	3.00 2-4	2.79 1-4	3.00 1-4	2.65 1-4
4. The service closely follows the needs, aspirations, and preferences of the service user.	Mean Range	2.20 1-4	2.33 1-4	2.67 2-4	2.79 1-4	2.17 1-4	2.51 1-4

Continue on next page

Table 4.8 continued

Theme and Attribute		Average rank					
		Researchers (n=6)	Practitioners (n=7)	Policy makers (n=6)	Family members (n=10)	People with ABI (n=8)	Total (n=37)
Theme four: Service setting and atmosphere	Mean	5.80	5.83	6.17	4.57	4.50	5.19
	Range	5-7	4-7	4-7	1-7	1-7	1-7
1. The service setting is appropriate to the service purpose	Mean	2.80	2.33	2.00	2.29	1.67	2.22
	Range	2-3	1-3	1-3	1-3	1-3	1-3
2. The service is accessible for service users and other stakeholders.	Mean	1.40	183	2.00	2.14	1.83	1.92
	Range	1-2	1-3	1-3	1-3	1-3	1-3
3. The service atmosphere is friendly, comfortable, welcoming, and respectful.	Mean	1.80	1.83	2.00	1.57	2.50	1.86
	Range	1-3	1-3	1-3	1-3	1-3	1-3

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Table 4.8 continued

Theme and Attribute		Average rank					
		Researchers (n=6)	Practitioners (n=7)	Policy makers (n=6)	Family members (n=10)	People with ABI (n=8)	Total (n=37)
Theme five: Community based practices	Mean	3.40	4.00	5.33	5.71	4.17	4.81
	Range	2-7	2-6	3-7	3-7	1-7	1-7
1. Service practices are located in typical community settings.	Mean	1.80	1.17	1.50	1.57	1.67	1.54
	Range	1-2	1-2	1-2	1-2	1-2	1-2
2. The service has well-developed linkages and networks with community resources.	Mean	1.20	1.83	1.50	1.43	1.33	1.46
	Range	1-2	1-2	1-2	1-2	1-2	1-2
Theme six: Development of skills	Mean	4.80	2.83	3.67	4.00	4.50	3.95
	Range	2-7	1-4	2-5	2-6	2-6	1-7
1. The service provides opportunities for the development of skills that are relevant to the needs of service users that contribute to community integration.	Mean	1.00	1.00	1.00	1.00	1.00	1.00
	Range	1-1	1-1	1-1	1-1	1-1	1-1

Continued on next page

Table 4.8 continued

Theme and Attribute		Average rank					
		Researchers (n=6)	Practitioners (n=7)	Policy makers (n=6)	Family members (n=10)	People with ABI (n=8)	Total (n=37)
Theme seven: Support for service users	Mean	4.80	6.00	4.33	5.00	5.00	5.03
	Range	3-7	4-7	1-6	3-7	2-6	1-7
1. The service promotes the development of service users through natural support such as volunteers, advocates, and peers.	Mean Range	1.60 1-3	2.17 1-3	2.00 1-3	1.71 1-3	2.17 1-3	1.89 1-3
2. The service provides appropriate specialist support including assistive technology to promote community integration such as employment support, counselling and family intervention, and clinical service.	Mean Range	2.60 2-3	1.67 1-3	2.33 2-3	2.21 1-3	2.00 1-3	2.16 1-3
3. The service ensures that staff have an appropriate mix of skills, experiences, and personal qualities.	Mean Range	1.80 1-3	2.17 1-3	1.67 1-3	2.07 1-3	1.83 1-3	1.95 1-3

Based on the priority weights calculated in this stage of the study, a new order was considered for the themes (Table 4.9). The process of calculation of the final score for theme one and attribute 1.1 are presented as an example. To calculate final score weight for theme one and attribute 1.1, the following calculations were needed (Table 4.9). The theme's total average rank was 2.38. The theme's weight was calculated as 4.62 (7 – 2.38 = 62). The sum of all seven reversed rankings was 21 (3.51 + 3.84 + 4.62 + 1.81 + 2.19 + 3.05 + 1.97= 21). The final theme weight for theme one was calculated as 0.220 (4.62 ÷ 21 = 0.220). The next step was calculating weight for attribute 1.1. The total average rank for attribute 1.1 was 2.24. The number of attributes in theme one was 4.0. Therefore, the revised rank for this attribute was 4.0-2.24=1.76. The sum of all four attributes reversed rankings in the theme was 1.76 + 1.41 + 1.35 + 1.49 = 6.0. The weight for the attribute was calculated as 0.293 (1.76 ÷ 6.0 = 0.293). The final weight for attribute 1.1 (Final theme weight × attribute weight) was 0.220 × 0.293 = 0.0644. This means attribute 1.1 contributes 6.44% of the total score across the instrument.

The themes final weights ranged between 0.086 (8.6%) and 0.220 (22.0%) across all of the themes in the instrument. Based on the new order, theme three 'Person centred approach and planning' comprised the first theme with final weight 0.220 (22.0%) and theme four 'Service setting and atmosphere' received the seventh priority with final weight 0.086 (8.6%).Theme one 'Working together' with final weight 0.167 (16.7%) was calculated to be the third important theme. Theme two 'Relationships' was the second important theme with the final weight 0.182 (18.2%). Theme six 'Development of skills' became theme four with final weight 0.145 (14.5%); and theme seven 'Support for service users' with final weight 0.093 (9.3%) was introduced as theme six. Finally, theme five 'Community based practice' was located as the fifth important theme with final weight 0.104 (10.4%). From this point, the numbers for the themes are presented based on the new order.

Final weights calculated for the attributes in each theme were used to re-order the attributes (Table 4.9). The final weights for attributes ranged between 0.0095 (0.95%) and 0.1448 (14.48%). Attribute five 'The service enhances knowledge in the community about people with ABI' in theme three 'Working together' achieved the lowest priority score (0.95%). Also, attribute one 'The service provides opportunities for the development of skills that are relevant to the needs of service users that contribute to community integration’ in theme four ‘Development of skills’ obtained the highest priority score (14.48%).

Table 1.4. Calculation of Themes and Attributes Priority Weights

Theme	Theme priority	Average rank	Theme weight[a]	∑ of theme weights	Final theme weight[b]	Attribute	Attribute priority	Average rank	Revise from numbers of Attribute in theme	∑ all reversed Attributes in the theme	Attribute weight[c]	Final Attribute weight[d]
One	Three	3.49	3.51	21	0.167	One	One	1.68	3.32	10	0.332	0.0554
						Two	Two	2.14	2.86	10	0.286	0.0477
						Three	Three	2.92	2.08	10	0.208	0.0347
						Four	Four	3.84	1.16	10	0.116	0.0193
						Five	Five	4.43	0.57	10	0.057	0.0095
Sum											1.00	
Two	Two	3.16	3.84	21	0.182	One	One	1.59	1.41	3	0.470	0.0855
						Two	Three	2.24	0.76	3	0.250	0.0455
						Three	Two	2.16	0.84	3	0.280	0.0509
Sum											1.00	
Three	One	2.38	4.62	21	0.220	One	One	2.24	1.76	6	0.293	0.0644
						Two	Three	2.59	1.41	6	0.235	0.0517
						Three	Four	2.65	1.35	6	0.225	0.0495
						Four	Two	2.51	1.49	6	0.248	0.0545
Sum											1.00	
Four	Seven	5.19	1.81	21	0.086	One	Three	2.22	0.78	3	0.260	0.0223
						Two	Two	1.92	1.08	3	0.360	0.0309
						Three	One	1.86	1.14	3	0.380	0.0326
Sum											1.00	
Five	Five	4.81	2.19	21	0.104	One	Two	1.54	0.46	1	0.460	0.0478
						Two	One	1.46	0.54	1	0.540	0.0561
Sum											1.00	

Continued on next page

Table 4.9 continued

Theme	Theme priority	Average rank	Theme weight[a]	∑ of theme weights	Final theme weight[b]	Attribute	Attribute priority	Average rank	Revise from numbers of Attribute in theme	∑ all reversed Attributes in the theme	Attribute weight[c]	Final Attribute weight[d]
Six	Four	3.95	3.05	21	0.145	One	One	1.00	1.00	1	1.00	0.1448
Sum												
Seven	Six	5.03	1.97	21	0.093	One	One	1.89	1.11	3	0.370	0.0344
						Two	Three	2.16	0.84	3	0.280	0.0260
						Three	Two	1.95	1.05	3	0.350	0.0325
Sum					1.00						1.00	

[a] Theme weight = Total number of themes (7) - Theme average rank; [b] Final theme weight = Dividing each theme weight by sum of all themes weights; [c] Attribute weight = Divided the attribute revised rank by the sum of all the attributes revised rank in the theme; [d] Attribute final weight = Final theme weight ×attribute weight in the theme.

To facilitate understanding priority of the attributes in the instrument, the attributes were re-ordered considering the final weights for the attributes in their themes (Table 4.10). Theme one 'Person centred approaches and planning'comprised 0.220 (22.0%) across the seven themes which was the highest final weight across themes. Theme one attributes had little variations in weights from 0.225 (2.25%) to 0.293 (2.93%) within the theme. Also, the final weight for the attributes in the theme was ranged from 0.0495 (4.95%) to 0.0644 (6.44%) across all attributes in the instrument. Theme two 'Relationships' obtained a final weight of 0.182 (18.2%). The range of final weights for the attributes in this theme was larger than theme one ranging from 0.0455 (4.55%) to 0.0855 (8.55%). Attributes in theme three 'Theme three: Working together' had large variations in final weights from 0.0095 (0.95%) to 0.0554 (5.54%) within the theme. There was just one attribute in theme four 'The service provides opportunities for the development of skills that are relevant to the needs of service users that contribute to community integration'. Therefore, no re-positioning was needed for the attribute (final weight 0.1448 = 14.48%). In theme five 'Community based practices', the results for the final weights showed the attributes one 'Service practices are located in typical community settings' and two 'The service has well-developed linkages and networks with community resources' swapped their position. The first attribute (with final weight 0.0478 = 4.78%) was considered less important than the second one (0.0561 = 5.61%). The range of final weights for themes six and seven were also small (from 0.0223 to 0.325) and the orders of the attributes were changed within the themes.

Table 1.5. New Arrangement of Themes and Attributes Based on Results of Stage Four

Theme one: Person centred approaches and planning
Attribute 1.1: The service knows its service users very well.
Attribute 1.2: The service closely follows the needs, aspirations, and preferences of the service user.
Attribute 1.3: The service focuses on service users' strengths and abilities rather than their disabilities.
Attribute 1.4: The service plans and provides programmes based on each individual service user.
Theme two: Relationships
Attribute 2.1: The service is aware and understands the importance of a range of relationships in the lives of service users.
Attribute 2.2: The service works to provide real opportunities for relationships to develop in areas such as work, education, and recreation.
Attribute 2.3: The service facilitates and supports existing and new relationships.
Theme three: Working together
Attribute 3.1: The service works closely with the service user, family, and friends.
Attribute 3.2: The service staff work as a team.
Attribute 3.3: The service accesses, and works collaboratively with community services.
Attribute 3.4: The service works cooperatively with advocacy groups.
Attribute 3.5: The service enhances knowledge in the community about people with ABI.
Theme four: Development of skills
Attribute 4.1: The service provides opportunities for the development of skills that are relevant to the needs of service users that contribute to community integration.
Theme five: Community based practices
Attribute 5.1: The service has well-developed linkages and networks with community resources.
Attribute 5.2: Service practices are located in typical community settings.

Continued on next page

Table 4.10 continued

Theme six: Support for service users
Attribute 6.1: The service promotes the development of service users through natural support such as volunteers, advocates, and peers.
Attribute 6.2: The service ensures that staff have an appropriate mix of skills, experiences, and personal qualities.
Attribute 6.3: The service provides appropriate specialist support including assistive technology to promote community integration such as employment support, counselling and family intervention, and clinical service.
Theme seven: Service setting and atmosphere
Attribute 7.1: The service atmosphere is friendly, comfortable, welcoming, and respectful.
Attribute 7.2: The service is accessible for service users and other stakeholders.
Attribute 7.3: The service setting is appropriate to the service purpose.

4.6 Details of PACIA Scoring

The final outcome of this study was the programme assessment of community integration attributes (PACIA) that can be used to evaluate services that provide community integration for adults with ABI. PACIA includes seven themes with descriptors, 21 attributes, 89 indicators, and 84 sources of evidence with a scoring sheet (Appendix R).

In order to find out to what extent a service includes characteristics for a successful community integration programme using PACIA, one should conduct observations, interviews with key persons (managers, staff, and service users) and review documents of the service. Attributes are rated on a scale ranging from one (minimum score which shows the lowest quality), to five (maximum score which shows the highest quality) based on suggestions by Pilling and Watson (1995). The rater’s scores (raw score) would be used to calculate the final score for the service. A range of scores come from the use of PACIA which need to be calculated using some equations. The final score determines the quality of the programme characteristics in the service. The final attributes, themes, and percentage scores of each service would be calculated using the following equations:

$$\textbf{Attribute final score} = \textbf{Attribute raw score} \times \textbf{Attribute final weight} \quad \text{(Equation 4.1)}$$

$$\text{Theme final score} = \frac{\text{Sum (Attribute final score)}}{\text{Number of attributes in the theme}} \qquad \text{(Equation 4.2)}$$

$$\text{Theme percentage score} = \frac{\text{Theme final score} \times 100}{\text{Maximum theme final score}} \qquad \text{(Equation 4.3)}$$

Total service final score = Sum all the service theme final scores

(Equation 4.4)

$$\text{Total service percentage score} = \frac{\text{Total service final score} \times 100}{\text{Total theme final maximum score}}$$

(Equation 4.5)

To determine the quality of a service, the final scores and percentages in each theme and attribute would be compared with maximum possible scores for PACIA attributes, themes, and percentages (Table 4.11). The rating scores for each attribute ranged between one (the lowest quality) and five (the highest quality). The minimum and maximum final scores for themes and attributes in PACIA (Table 4.11) were calculated using the following equations.

$$\text{PACIA theme minimum final score} = \frac{\text{Sum (1} \times \text{Final attribute weight)}}{\text{Number of attributes in the theme}}$$

(Equation 4.6)

$$\text{PACIA theme maximum final score} = \frac{\text{Sum (5} \times \text{Attribute final weight)}}{\text{Number of attributes in the theme}}$$

(Equation 4.7)

PACIA attribute minimum final score = 1 × Attribute final weight

(Equation 4.8)

PACIA attribute maximum final score = 5 × Attribute final weight

(Equation 4.9)

The PACIA minimum and maximum percentage scores (Table 4.11) are ranged between 20% to 100%. These percentages were calculated based on the PACIA rating scores for each attribute (one ‘minimum score which shows the lowest quality’ to five ‘maximum score which shows the highest quality’). Calculations for minimum and maximum scores for theme one and attribute 1.1 are presented below as examples.

Theme one minimum final score = Sum (1× 0.064 + 0.055 + 0.052 + 0.050) / 4 = 0.055

Theme one maximum final score = Sum (5× (0.064 + 0.055 + 0.052 + 0.050)) / 4= 0.276

Attribute 1.1 minimum final score = 1 × 0.064 = 0.064

Attribute 1.1 maximum final score = 5 × 0.064 = 0.320

Table 1.6. PACIA Themes and Attributes' Scores and Percentages

Theme	Attribute final weight	Final minimum score [a,b]	Theme minimum percentage score	Final maximum score [c,d]	Theme maximum percentage score
Theme 1	-	0.055	20%	0.276	100%
Attribute 1.1	0.064	0.064	-	0.320	-
Attribute 1.2	0.055	0.055	-	0.275	-
Attribute 1.3	0.052	0.052	-	0.260	-
Attribute 1.4	0.050	0.050	-	0.250	-
Theme 2		0.061	20%	0.305	100%
Attribute 2.1	0.086	0.086	-	0.430	-
Attribute 2.2	0.051	0.051	-	0.255	-
Attribute 2.3	0.046	0.046	-	0.230	-
Theme 3	-	0.033	20%	0.167	100%
Attribute 3.1	0.055	0.055	-	0.275	-
Attribute 3.2	0.048	0.048	-	0.240	-
Attribute 3.3	0.035	0.035	-	0.175	-
Attribute 3.4	0.019	0.019	-	0.095	-
Attribute 3.5	0.010	0.010	-	0.050	-
Theme 4	-	0.145	20%	0.725	100%
Attribute 4.1	0.145	0.145	-	0.725	-

Continued on next page

Table 4.11 continued

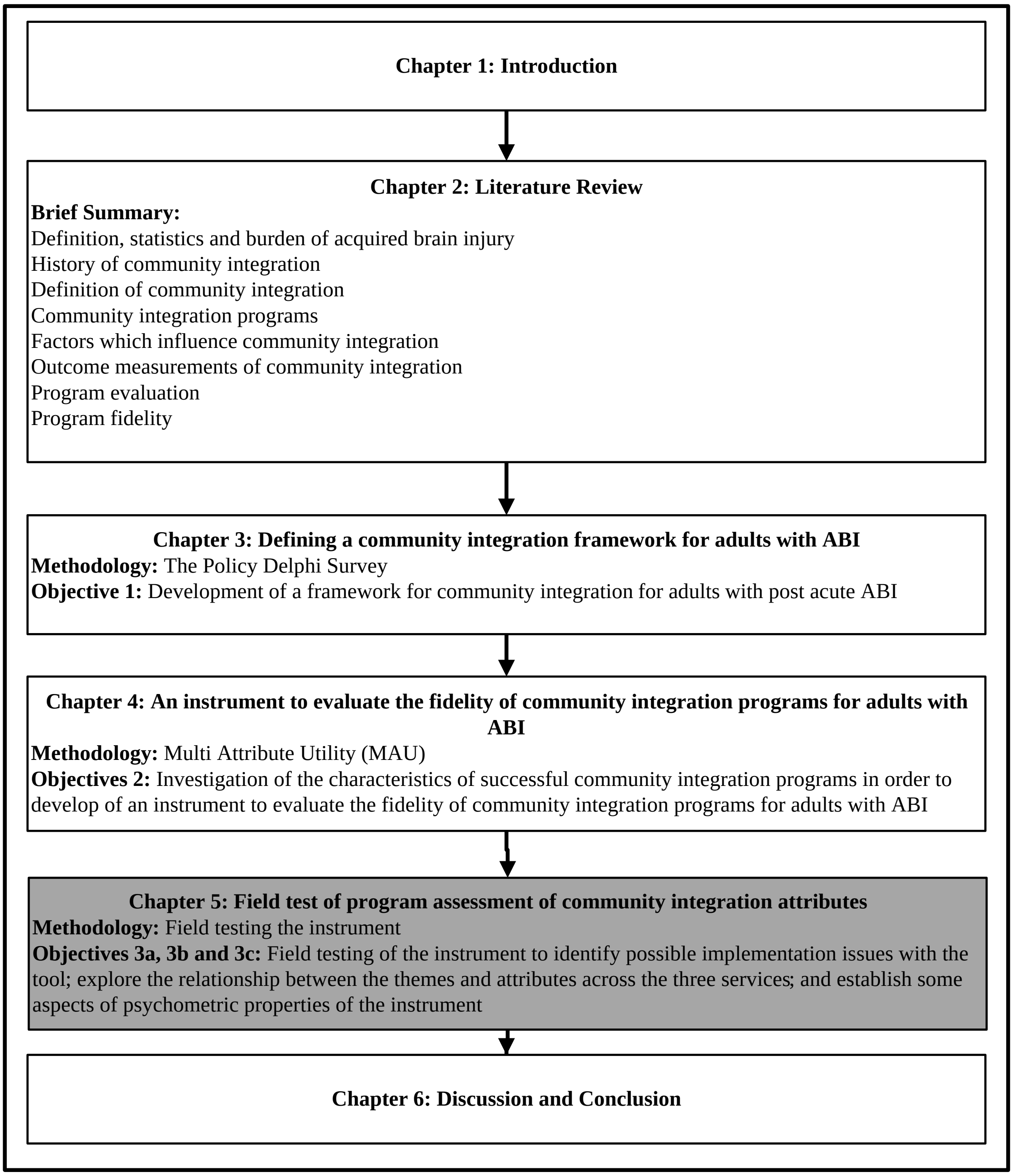
Theme	Attribute final weight	Final minimum score[a,b]	Theme minimum percentage score	Final maximum score [c,d]	Theme maximum percentage score
Theme 5	-	0.052	20%	0.260	100%
Attribute 5.1	0.056	0.056	-	0.280	-
Attribute 5.2	0.048	0.048	-	0.240	-
Theme 6	-	0.031	20%	0.155	100%
Attribute 6.1	0.034	0.034	-	0.170	-
Attribute 6.2	0.033	0.033	-	0.165	-
Attribute 6.3	0.026	0.026	-	0.130	-
Theme 7	-	0.029	20%	0.143	100%
Attribute 7.1	0.033	0.033	-	0.165	-
Attribute 7.2	0.031	0.031	-	0.155	-
Attribute 7.3	0.022	0.022	-	0.110	-

Note. Dashes indicate the items were not needed to be calculated; [a]Theme minimum final score = Sum (1× Final attribute weight) / Number of attributes in the theme; [b]Attribute minimum final score = 1 × Attribute final weight; [c]Theme maximum final score = Sum (5× Final attribute weight) / Number of attributes in the theme; [d]Attribute maximum final score = 5 × Attribute final weight

4.6.1 **Conclusion.**

To conclude, the Participant Groups generated and ranked the themes and attributes. Based on the ranking, weights for the themes and attributes were calculated. The final result of this phase of the study was PACIA with seven themes, their descriptors, 21 attributes, indicators and sources of evidence. A scoring sheet to guide the users to score services was also prepared. The instrument had been developed to the stage where it could be trialled to evaluate services delivering community integration programmes for adults with ABI in the next stage of the study.

Chapter 5:
Field Test of Programme Assessment of Community Integration Attributes



Chapter 1: Introduction

Chapter 2: Literature Review

Brief Summary:

Definition, statistics and burden of acquired brain injury
History of community integration
Definition of community integration
Community integration programs
Factors which influence community integration
Outcome measurements of community integration
Program evaluation
Program fidelity

Chapter 3: Defining a community integration framework for adults with ABI

Methodology: The Policy Delphi Survey

Objective 1: Development of a framework for community integration for adults with post acute ABI

Chapter 4: An instrument to evaluate the fidelity of community integration programs for adults with ABI

Methodology: Multi Attribute Utility (MAU)

Objectives 2: Investigation of the characteristics of successful community integration programs in order to develop of an instrument to evaluate the fidelity of community integration programs for adults with ABI

Chapter 5: Field test of program assessment of community integration attributes

Methodology: Field testing the instrument

Objectives 3a, 3b and 3c: Field testing of the instrument to identify possible implementation issues with the tool; explore the relationship between the themes and attributes across the three services; and establish some aspects of psychometric properties of the instrument

Chapter 6: Discussion and Conclusion

5.1 **Introduction**

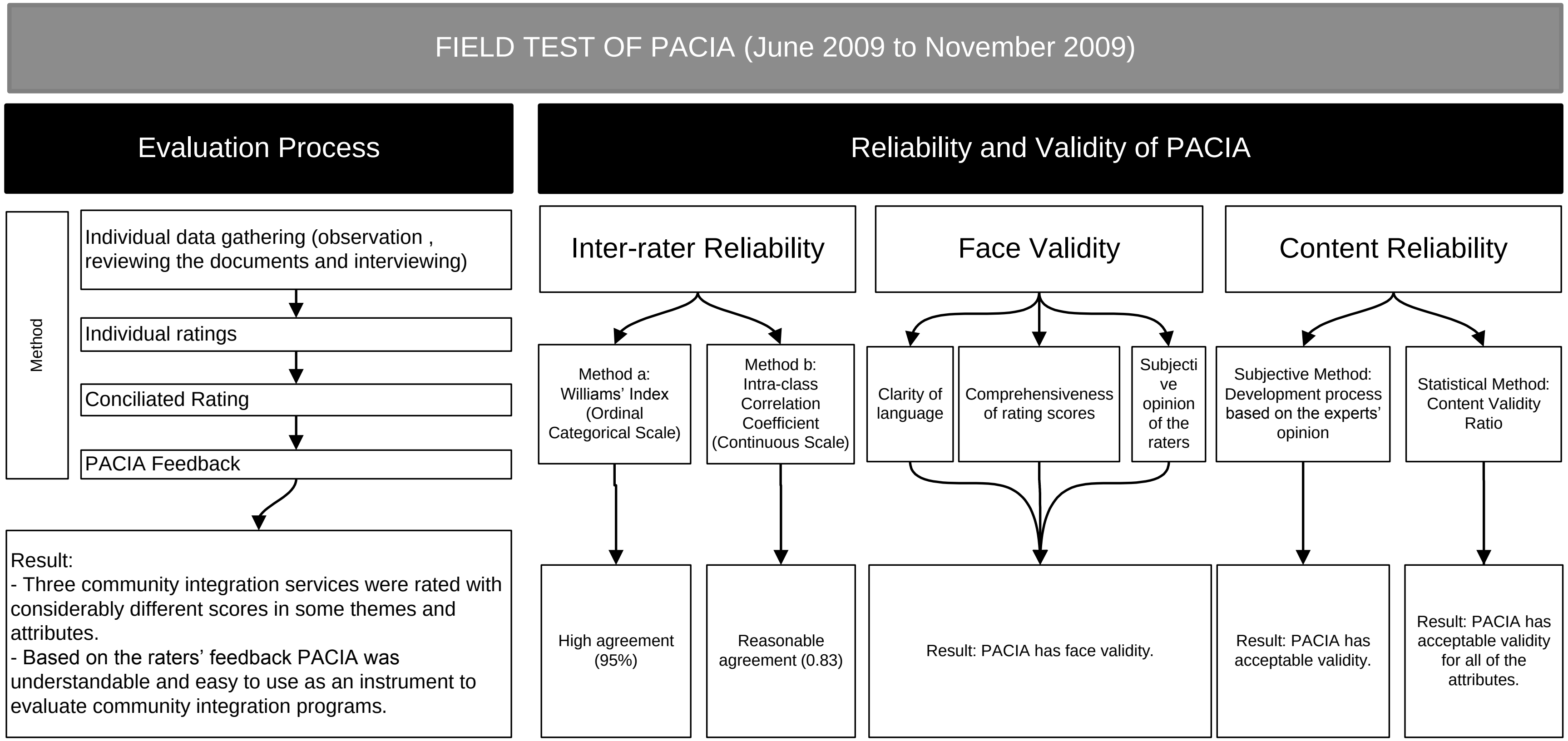
The previous chapter described the development of Programme Assessment of Community Integration Attributes (PACIA), a tool to appraise community integration programmes for adults with acquired brain injury (ABI). PACIA includes seven themes and 21 attributes which were confirmed by the stakeholders, Expert Panel and the literature. This chapter describes the processes and outcomes of a field study (conducted from June 2009 to November 2009) that examined three services for adults with ABI using PACIA, implementation issues with the tool, and evaluated specific reliability and validity characteristics of PACIA.

The objectives of the field study were:

- To test the effectiveness of the evaluation process.
- To explore the relationship between the themes and attributes across the three services.
- To examine the ease of use and issues in the implementation of the instrument.
- To examine some issues of validity.
- To examine some issues of reliability.

The study design for this phase of the study was a mixed method of both qualitative and quantitative approaches (Portney & Watkins, 2009). This chapter is presented in two sections: the evaluation process, and reliability and validity of PACIA. Each of the sections includes method, results and discussion, and conclusion (Figure 5.1).

Figure 5.1. Overview of Field Test of Programme Assessment of Community integration Attributes



5.2 The Evaluation Process

A team of five raters conducted an assessment of three community integration programmes for adults with ABI using PACIA. The evaluation process is described in this section.

5.2.1 Overview of method.

The evaluation processes followed those recommended in the *Guidelines for Evaluators During a PASS, PASSING, or Similar Assessment of Human Service Quality* (Wolfensberger, 1983a). The guideline provides technical background information and instructions for use, and a field manual which includes comprehensive evaluation criteria. Based on this guideline, a team of raters should be chosen from a wide range of interests in the service. The number of raters in the team may vary between three and seven. The raters should be trained to be able to use the instrument efficiently to evaluate the service. Observation of the service, interviews with key informants, and document review should be used to collect data for the evaluation. Based on the data collected, the services will be rated by each rater individually. Then the notes taken during the data collection should be taken to the conciliation meeting to discuss by the team. After the discussion the raters come to an agreement on the score for the service quality.

Three services agreed to participate in the evaluation during the present study. The raters received training on the evaluation process and the use of PACIA during a one-day workshop. The data collection was conducted in four stages:

1. Individual data gathering: The raters collected information through reading the service policy and related documents, observation of the service, and interviewing managers, staff, and service users. The interview with the managers focused on overall description of the service, and answering structured, and open-ended questions based on PACIA (Appendix S).

2. Individual ratings: Following the evaluation of each service, the raters individually assigned scores to each attribute based on the data from the service using an individual scoring sheet (Appendix R).

3. Conciliated ratings: The raters engaged in a conciliation process in which a score was assigned to each attribute. In the conciliation process, the raters discussed each attribute and analysed the evidence before reaching a consensus on the score. The scores resulting from the conciliation meetings were considered to be the raw score for the service attributes. The final scores for the service themes and attributes were calculated using the equations 4.1 to 4.3 (Section 4.6).

4. PACIA feedback: At the end of the service evaluation, the raters provided feedback on all parts of the service evaluation with PACIA through completing a feedback booklet (Appendix T). The results of this part of evaluation are presented in Section 5.2.4.4.

5.2.2 **Preparation of services.**

Three services were introduced to the researcher by the Reference Group that included representatives of ABI non-government organisations (NGOs) and the Disability Service Commission (DSC). DSC provides services and support as well as funds for NGOs to provide services to people with disabilities, their family members and carers. These were the only available services in Western Australia providing post acute services aimed to return adults with ABI to the community. Service details are provided in Section 5.2.4.1.

As the first step, the services were phoned and emailed by the researcher and provided with information about the evaluation process and its objectives. This was followed by a meeting with the service managers, the researcher and the evaluation team leader to provide more details. Any questions regarding the study were answered. At the end of the meeting service managers received a printed information sheet and a consent form (Appendix U). The information sheet included explanation about the purpose of the evaluation instrument, how PACIA was developed, how the study was being carried out, what the research participants were being asked to do, and how confidentiality and privacy would be protected. The service managers signed and returned the consent forms to the researcher before the evaluation began. The raters were given access to relevant documents, and were given permission to observe the programme process and to interview the service users and the staff if they agreed to participate. The managers also agreed that the results of the study could be published without identifying the service, service users and the staff.

5.2.3 **The evaluation team.**

The evaluation team consisted of five raters including a team leader. They were selected from eight people who were suggested by the research team and who met the inclusion criteria of having experience of rehabilitation programmes for people with ABI and/or experience in the evaluation process that was utilised by the study. Raters were interviewed, the project and their respective roles were explained to them, and they agreed to participate in the evaluation process.

The selected raters included a team leader with considerable experience in disability and the evaluation process, two raters with experience in disability services and in the evaluation process, and two third year occupational therapy students with some experience in disability, but none in programme evaluation. The raters, two females and three males, were all paid for their two weeks' work.

The raters received an information sheet which described the purpose of the evaluation, the tool to be used, services to be evaluated, evaluation process, the role of the team leader and the raters, and the evaluation timeframe (Appendix V). After reading the information sheet, the raters signed a confidentiality agreement (Appendix W). Raters agreed to treat all of the information regarding clients, staff, management, board of directors, overall programme and general administration of service in total confidence. In addition, they agreed not to discuss the information they received regarding the services and service users with anyone except the other members of the evaluation team. All notes made on the services were to be returned to the team leader at the conclusion of the evaluation.

Team leader's responsibilities:

The team leader who had been involved earlier in the project as a member of the Expert Panel to develop PACIA, was the first rater selected. He managed the programme evaluation, carried out the main interview with the manager or coordinator of each service, and provided opportunity for the raters to ask questions regarding the service towards the end of each interview. The team leader assigned tasks to the raters such as special interviews or reviewing documents to be carried out during the evaluation process. He was also responsible for managing the conciliation process.

Raters' responsibilities:

The raters participated in a one-day workshop to learn how to use PACIA and to go over the evaluation processes. They received a guide book (Appendix R) as a pre-reading document that included PACIA and the user guidelines, and individual and conciliated attribute scoring sheets. The workshop was organised in three sections: introduction, evaluation processes and conclusion.

The researcher led a discussion on the purposes of the research project and the development of PACIA. The team leader provided a detailed description of the evaluation processes and led a discussion on each of the three services to be evaluated. The raters were provided some examples about how to use the 5-point scale to rate the services. The researcher had prepared and distributed a booklet during the training day on each of the services with information based on the services' websites and documents provided by each service. They included policies, mission, settings, and service users' inclusion criteria. The raters received the booklets during the training day. At the conclusion of the workshop, an opportunity was provided to clarify any uncertain aspects of the evaluation process. The raters received the timetable for the evaluation process, the address, and the contact persons in each site. They were informed that if there was any problem during the evaluations, the team leader was to be informed.

During the service evaluation, the raters were acting under the supervision of the team leader. They attended the main interview, took notes and asked questions, read and took notes from the service documents, and residents' reports and records. Raters spent time with service users, friends, family, and service providers in a respectful, informal manner. The raters made direct observations of the service including service facilities and practices. For example, they were involved in casual conversations or social interactions such as a sharing a meal or a coffee. They also conducted formal interviews with some key stakeholders including the person/s who managed the service and service provider/s. They had more formal interaction with service providers to follow up specific issues at the request of the team leader, such as obtaining more details about a specific service user. Raters were instructed to behave as visitors to service sites and to avoid becoming part of the service. The raters completed feedback surveys following the three evaluations to identify PACIA implementation issues. More details of the results of the feedback are provided in Section 5.2.4.4.

5.2.4 **Results and discussion.**

The team spent one day in each service to collect data, followed by an average of a six hour meeting for conciliation. The results of the evaluation are presented below in four sections. The first section describes each service under a common set of headings with information based on service documents and interviews with the service managers. The second section provides a narrative and the individual and conciliated scores for each PACIA attribute for each service. The third section compares the services' scores. Implementation issues with PACIA based on feedback from the raters are discussed in the fourth section.

5.2.4.1 ***Description of services.***

For ease of comparison of the services' characteristics, the services are described under five subsections including stated service objectives, service location, service users, physical characteristics and facilities provided by the service, and service processes. The descriptions are based on information provided by each service and do not necessarily reflect conclusions arising from the evaluations.

5.2.4.1.1 Service one.

The service was an NGO which provided permanent accommodation support for people with ABI and intellectual disability in the two separated settings.

1. Stated service objectives

Based on the service website, the service goal was "to assist service users to integrate into the general community as much as possible and follow their life plan and goals as set by the service users and their families".

2. Service location

The service was a registered service provider with the Disability Services Commission of Western Australia. It was located in a Perth metropolitan residential area. The service was a stand-alone service which was not connected to any larger parent service.

3. Service users

The service accommodated eight people, six males and two females. The service users were people with ABI and intellectual disability and their ages ranged between 18 and 65 years. Most service users remained in the service a number of years. Some service users had been with the service since it began approximately 12 years ago.

4. Physical characteristics and facilities provided by the service

The service accommodated service users in two separate settings with individual and small group accommodation options. In one setting, three service users lived in a house with shared bathroom, kitchen, dining, lounge and laundry areas. In the second setting, the five service users lived in five attached villas. One of the service users with a physical disability was living on the ground floor of a villa in the setting. The staff office was located on the first floor of the same villa.

The service described itself as providing accommodation support, in-home rehabilitation/retraining services, intensive family support, and alternatives to employment. Other facilities provided were case management, care support, community access, recreation support, employment assistance (linked to appropriate supportive work agencies), life planning and accommodation. The service provided three meals a day for the service users.

5. Service processes

Funding: service users were all funded by the Disability Services Commission. They had individualised accommodation support funding.

Referral practices: The service users were referred to the service through different services including the DSC and other NGOs.

Service duration: The service was provided on a long-term basis.

Service staff: Staff in the settings included care workers, case managers and a service manager. There were two care workers in each setting for 24 hours, seven days per week. If additional service/health professionals were needed for a service user, the staff would direct the enquiry to other service providers.

Methods: The service described its methods as follows. All referrals were assessed individually according to the service users' needs/abilities. Goals were individually designed specifically for the service user to maximise skills, involvement in the community and independence. Goals were reviewed on a regular basis with input from the service users, family and significant others (if that was the service user's wish). A case manager ensured that the service users' needs were met and that the service changed, if required. The case managers linked with other NGOs in the metropolitan area to create an individual network to support the service users.

5.2.4.1.2 Service two.

The service was an NGO which provided long-term accommodation support for people with ABI in one setting.

1. Stated service objectives

Based on the information obtained from the service website, the service goal was "training social skills and ways to achieve integration into the community for service users and to assist them in achieving a fulfilling lifestyle in key areas of their everyday lives".

2. Service location

Service two was located in a Perth metropolitan residential area. The service was connected to a larger Perth metropolitan-based service that provided different types of service for people with disability including full-care, employment and accommodation support.

3. Service users

The service accommodated six people, five males and one female. The service users were people with multiple disabilities, including ABI and their ages ranged between 18 and 65 years. The service users were accommodated in the service indefinitely, unless they required higher support such as special medical care.

4. Physical characteristics and facilities provided by the service

The service accommodated people in a shared setting. In the house, there were five separate bedrooms with shared bathroom, kitchen, dining, lounge and laundry areas and a separate en-suite for the female service user. The staff office was also located in the setting.

The service provided accommodation support and community-based activities including work, leisure and activity groups. The support by the staff included assisting service users with their personal care needs, assessing their developing skills and competence in a range of areas, supporting them to access and participate in a range of recreational, social and learning activities in the community, and assisting them to promote a sense of home. The service provided three meals a day and morning and afternoon tea for the service users.

The service provided access to some other facilities through the parent organisation. To establish a friendship group for the service users and their relatives, a group met regularly and provided opportunities for networking, emotional support, sharing information, and activities for service users' participation. Other facilities such as physiotherapy, occupational therapy, and speech pathology were examples of the health service provided through the larger organisation.

5. Service processes

Funding: All funding was provided by the DSC.

Referral practices: The service users were referred by the DSC and other NGOs.

Service duration: The service provided a long-term service to the service users.

Service staff: The service staff included care workers, case managers and a service manager. The care workers provided 24 hours, one-to-one support required by the service users at the setting and when out in the community. The health professionals working in this service were employed by the parent organisation and were asked to provide a service for the service users as required.

Methods: The service users received individual support (one support worker for one service user). The service accessed some service-based/group activities such as recreational activities provided by the parent organisation.

5.2.4.1.3 Service three.

The service was an NGO which provided a rehabilitation service over a stated time period of up to 18 months for people with ABI to help them learn skills to live independently.

1. Stated service objectives

Based on the service website, the service goal was “to facilitate community integration and independent life for service users, within an environment suitable to the needs of each service user”.

2. Service location

Service three was located in a Perth metropolitan residential area. The service was part of a larger Perth metropolitan-based service that provided various types of facilities to people with disabilities ranging from full-care, to employment and accommodation support.

3. Service users

The service accommodated 27 people, including 18 males and nine females. The service users were people with ABI aged between 18 and 65 years. The average length of time in the service was 24 months with a range from 4 to 46 months.

4. Physical characteristics and facilities provided by the service

The service accommodated service users in a complex of five houses with individual bedrooms and shared kitchen, dining, lounge and laundry areas in each house. Bathrooms were shared between two rooms. The service had a recreation room, extensive outdoor garden areas and physiotherapy, occupational therapy, speech pathology and nursing facilities on site for the service users. The staff office was located in a separate building in the service.

The service also provided group therapy, community based activities, recreational activities and vocational rehabilitation. Service users participated in meal preparation, laundry and other domestic duties as part of their rehabilitation service. The health team was based onsite and also provided community rehabilitation services to follow up service users living in their own homes. If other types of facilities were required, the service users were referred to the related health professional/expert such as GP and dentist.

5. Service processes

Funding: Funding was provided by the Health Department of Western Australia and the DSC.

Referral practices: Referrals were received from various organisations, including acute hospital rehabilitation units, the Headwest, NGOs and by self referral. Headwest is the Brain Injury Association of Western Australia which works towards improving quality of life for people with acquired brain injury.

Service duration: The service was organised for a period of one to two years, with a short end phase of return to the community supported by the service.

Service staff: The team consisted of registered and enrolled nurses, physiotherapists, occupational therapists, speech pathologists, social workers, welfare assistants, therapy assistants, care workers, a psychologist, and a community integration coordinator. They also consulted with a neuropsychiatric rehabilitation consultant, general practitioner and consultant dietician.

Methods: As described by the service, the community integration programme in this service was outcome focused and flexible to enable service users to access the service either onsite or in their own home environment. Once a referral was received, an assessment team visited the individual to assess if they were suitable for the service. If they were eligible, the service user would be admitted to the service. Following a period of assessment, goals were developed in conjunction with the service user, their family and the team. From these goals the team developed rehabilitation plans.

The service model of rehabilitation provided an opportunity for the service users to develop the practical skills needed for independent living, beginning with basic skills such as self care, domestic skills, and planning in the first house. The service was delivered progressively from the first house with the highest level of dependency to the fifth house when the person was ready to be reintegrated in the community. The service users in each house were expected to fulfil the domestic duties in that house. Every 3-4 months a multi-professional team re-evaluated the person to determine if the person was ready to move to the next house. In the fifth house, the person was living with the lowest level of support. At this stage the service users had developed necessary skills for living in the community, like budgeting, complex problem-solving, using community services and public transport. After leaving the main service and living independently in the community, the service users were followed up for more six months.

5.2.4.2 *Theme and attribute scores for the three services.*

This section compares scores of themes and attributes in each service and presents a discussion on the attributes based on the narratives taken from the conciliation meetings. During the conciliation meetings, the individual scores (ranging between one and five), which were gathered through observation, interview with the key persons and service users, and review of service documents, were processed and the raw scores were obtained. The raw scores (ranging between one and five) obtained for each theme and its attributes were processed using Equations 4.1, 4.2, and 4.3 as presented in Section 4.6 and the final scores and percentage scores were calculated. Table 5.1 shows the scores that each service obtained in each theme expressed as a percentage of 20 to 100%. In total, service one received 49%, service two 59%, and service three 62% of the possible PACIA score. The percentage scores ranged from 38% to 78% (Median=60%). Service one received more than 60% of the score in two themes (themes five and seven). Service two had five themes equal to, or higher than 60% (themes one, three, four, six, and seven). Service three obtained equal to, or more than 60% of total scores in all themes except for theme two which was 50%.

Table 5.1. *Comparison of Services on PACIA Percentage Scores by Themes*

	PACIA score	Service one		Service two		Service three	
Themes	Theme final minimum and maximum score	Final score	Percentage score[a] (20 -100%)	Final score	Percentage score[a] (20 -100%)	Final score	Percentage score[a] (20 -100%)
Theme 1	0.055 - 0.276	0.143	54%	0.182	69%	0.178	68%
Theme 2	0.061 - 0.305	0.134	44%	0.166	54%	0.151	50%
Theme 3	0.033 - 0.167	0.074	44%	0.101	60%	0.122	73%
Theme 4	0.145 - 0.725	0.290	40%	0.435	60%	0.435	60%
Theme 5	0.052 - 0.260	0.180	69%	0.100	38%	0.156	60%
Theme 6	0.031 - 0.155	0.059	38%	0.101	65%	0.101	65%
Theme 7	0.029 - 0.143	0.112	78%	0.104	73%	0.107	75%
Total[b]	0.406 - 2.018	0.992	49%	1.189	59%	1.250	62%

[a] Service theme percentage score = (Theme final score ×100) / Theme final maximum score

[b] Total service percentage score = (Total final score ×100) / Total theme final maximum score

In the following sections, first, the services are compared considering their final scores in themes and attributes and a discussion on the scores is presented using the information obtained during the evaluation. Then, the average individual scores, conciliated scores (raw score), and narratives for each attribute for each service are presented. The narratives are based on the notes taken from the conciliation meetings. Tables 5.2 to 5.8 and Figures 5.2 to 5.8 present average individual scores and raw scores which are used in this section. In 58% of attributes, there was no change from the average individual scores to the raw (conciliated) scores, while 32% decreased and 10% increased. The mean change of scores was 0.22 ±0.58. This result was achieved using rounded average individual scores to make them comparable with the raw scores which did not have decimal points.

Theme one: Person centred approaches and planning

Brief description: The service knows its service users very well and responds to their strengths and preferences in a highly individual way. Programmes are planned based on each service user's needs and aspirations.

Figure 5.2. Theme One and Its Attribute Scores in the Three Services

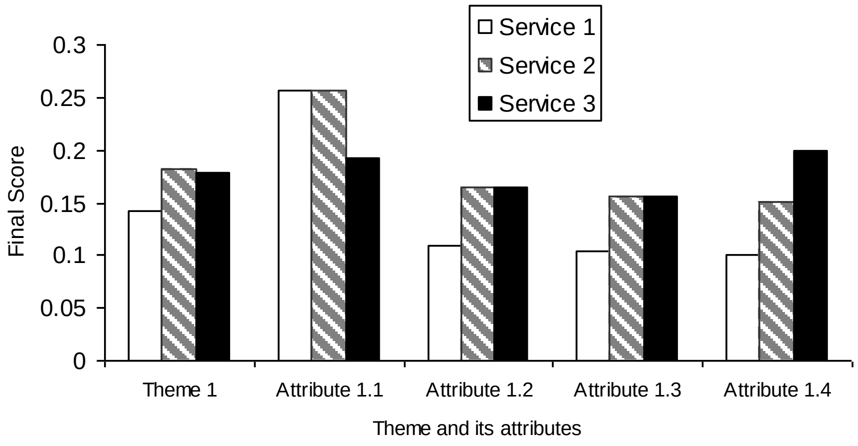


Table 5.2. Comparison of Services on Average, Raw, and Final Scores by Themes and Attributes

Theme	Service one			Service two			Service three		
	Average individual score	Raw score	Final score	Average individual score	Raw score	Final score	Average individual score	Raw score	Final score
Theme 1	-	-	0.143	-	-	0.182	-	-	0.178
Attribute 1.1	4.2	4	0.256	3.8	4	0.256	3.2	3	0.192
Attribute 1.2	2.2	2	0.110	3	3	0.165	3.2	3	0.165
Attribute 1.3	2.4	2	0.104	3.2	3	0.156	3.2	3	0.156
Attribute 1.4	2.8	2	0.100	3	3	0.150	3.8	4	0.200

Note. Dashes indicate the items were not needed to be calculated

When comparing the services’ final scores on the first theme, service one received the lowest score (0.143) and service two received the highest score (0.182). Service two also obtained the highest score and/or equal to another service in three of the four attributes in theme one. This was because service two had the greatest attention to person centred approaches and planning in the service programmes (Figure 5.2 and Table 5.2).

Attribute1.1: The service knows its service users very well.

Service one scores and narratives

Raters’ average individual score and raw score for service one were 4.2 and 4.0 respectively. The service policy emphasised knowing service users well. The service knew the service users and their wishes/needs. The service manager and staff had good understanding of the service users’ interests, communication skills, background and behaviour issues. Due to the small group of service users living in the service, the service manager had detailed information about each service user such as their personal contacts. The staff were informed of the service users’ preferences. However, the staff’s lack of knowledge regarding aspirations and specific personal preferences was the main shortcoming of the service in knowing the service users.

The information sources regarding the service users were limited to meeting with the guardian, carer, and reviewing the care plans.

Service two scores and narratives

Raters' average individual score and raw score for service two were 3.8 and 4.0 respectively. The service manager had a good knowledge about each service user because only a small group of people were living in the setting and the manager was in direct contact with the service users. All staff acknowledged the importance of knowing the service users. They had a comprehensive knowledge about the service users' characteristics prior to starting to work with them and were proactively gathering information about new service users. However, the information regarding the service users was limited to the personal characteristics and their specific personal desires/needs were not clear.

Service three scores and narratives

Raters' average individual score and raw score for service three were 3.2 and 3.0 respectively. The service had some information regarding the service users' ideas/interests, and the staff put effort into knowing service users from the preliminary stages. The staff knew the service users through using different strategies such as a three days trial (all staff would meet and discuss with the person), allocating time to spend with each person, and handover and collecting information from previous houses within the service. However, as the service accommodated a large group of service users in the setting temporarily, and the staff rotation was not based on a person-centred approach, the service had limited personal knowledge about the service users.

Comparison of the three services in the attribute 1.1 showed that services one and two received the same and higher final scores (0.256) than service three (0.192) (Figure 5.2 and Table 5.2). Staff in services one and two were considering the service users' interests and desires while planning for them. A contributing factor may have been that these services were provided permanently for a smaller number of service users (eight people in service one and six people in service two) than service three which provided a temporary (1.5 years) service for 27 service users.

Attribute1.2: The service closely follows the needs, aspirations, and preferences of the service user.

Service one scores and narratives

Raters’ average individual score and raw score for service one were 2.2 and 2.0 respectively. The service policy emphasised the importance of designing and delivering the service based on the service users’ individual circumstances, needs and preferences. There was a timetable for each resident’s daily routines and activities. The service users’ needs were reported daily during handovers to other staff and if a specific service was required, it was provided by the relevant professionals invited through the service. The staff approach and actions followed the service users’ individual needs such as participation in activities and meal preferences. The service considered various individualised spaces such as backyard area, lounge room, and smoking area for different activities. However, there was limited evidence for designing and delivering the service based on the service users’ ideas, aspirations, and concerns. The plans for the service users were determined by managers and they had not been reviewed for a long time.

Service two scores and narratives

Both raters’ average individual score and raw score for service two were three. The service plans were based on the service user’s needs/aspirations and everything was modified according to their preferences such as showering and wakeup time. The service manager was aware of changing needs and changed the plans accordingly. The service plans for each service user were based on their abilities while considering their disabilities. The staff worked on providing a balance between needs and duty of care. However, the service’s understanding of the service users’ aspirations and needs was limited. The service users’ plans had not been updated for a long time.

Service three scores and narratives

Raters’ average individual score and raw score for service three were 3.2 and 3.0 respectively. The service policy considered the service user’s aspirations when choosing the programmes. The service plan was well organised based on the service users' needs, for example service users had the choice to select and participate in the programmes based on their aspirations. The service had an individualised approach to the service user to improve their skills. However, there was limited evidence to show the service users' aspirations were known or followed by the service.

In an overall view, services two and three obtained higher scores (0.165) than service one (0.110) in attribute 1.2 (Figure 5.2 and Table 5.2). Both service two and three provided enough evidence to show that the service users' needs and aspirations were closely followed when designing the plans and their individual needs were considered in selecting activities. In service one, plans for the service users were determined by the managers who were not in direct contact with the service users and were not familiar with the service users' needs and characteristics.

Attribute1.3: The service focuses on service users' strengths and abilities rather than their disabilities.

Service one scores and narratives

Raters' average individual score and raw score for service one were 2.4 and 2.0 respectively. The service was aware of the limitations of its information regarding the service users' strengths and abilities. The service expectation regarding the service users was living according to their abilities and supports. However, the service was focused on disability, especially regarding the service users' behaviour and the care plan predominately overlooked their strengths and talents. The staff were not familiar with the service users' abilities, and there was no expectation or interest to pursue it.

Service two scores and narratives

Raters' average individual score and raw score for service two were 3.2 and 3.0 respectively. The service plans were specified based on the service users' abilities. There was a list of capacities/abilities of the service users in their folders. Tone of the staff comments was generally positive and an adequate level of health and behavioural support was ensured. The service made an effort to optimise capacities of the service users in relation to their home duties through daily living activities. However, despite the fact that some service users' strengths were known to the service, the support provided was not adequate. The service plan regarding competencies was not individualised and it was not focused to improve the service users' strengths.

Service three scores and narratives

Raters' average individual score and raw score for service three were 3.2 and 3.0 respectively. The service policy was based on developing the service users' abilities for living independently. The service aimed at demonstrating the service users' abilities and strengths rather than disabilities. The service was focused on the service users' capacities so they were asked to list their individual expectations, and these were conveyed in plans. However, there was some disrespectful behaviour in the staff and service users' interactions. Some of the service users were not happy with the service's efforts regarding improving the service users' abilities.

Overall, service one in comparison with the other services achieved the lowest score (0.104) in the attribute 1.3. This is in comparison with the two other services receiving equal scores (0.156) (Figure 5.2 and Table 5.2). Services two and three had specific plans regarding focus on the service users' abilities rather than disabilities. The staff tone, efforts and manners towards the service users were positive and supportive to optimise their abilities performing daily living activities. However, service one focused on the service users' disabilities and their strengths and talents were not included in service users' plans.

Attribute1.4: The service plans and provides programmes based on each individual service user.

Service one scores and narratives

Raters' average individual score and raw score for service one were 2.8 and 2.0 respectively. The service manager and the staff worked based on the plans which were specified for each personal issue. The service kept service users' individual information including activities, interests and community access in one file. The service routines were based on the care plan as well as the service users' needs and approach. However, the staff were not familiar with content of the care plans, and their interpretations regarding the service users' interests and goals were not accurate. The service routine, which was expected to be followed by the staff, was designed by the manager and had a lot of repetition. The service users' plans, which were also written by the service manager, were poorly designed and were not reviewed for a long time.

Service two scores and narratives

Both raters' average individual score and raw score for service two were three. The service plan for the service users was structured individually and some flexibility around each resident's activity and daily schedule was considered. Extensive lifestyle planning was undertaken for each service user. Various strategies such as daily chore/household activities were identified for each service user's plan. However, the plans for the service users lacked depth and breadth and there was no regular reviewing or official updating for plans. There was insufficient evidence of follow up regarding the service users' achievements.

Service three scores and narratives

Raters' average individual score and raw score for service three were 3.8 and 4.0 respectively. The service policy was based on an individual approach. The service users' plans were reasonably comprehensive including individual skills and a timeline to develop them. Every three months the plans were reviewed and improved in a meeting with the service user. However, the plans caused isolation of the person in both the group and individual activities. The members of the groups were working in parallel rather than in collaboration with each other.

Comparison of the three services in the attribute 1.4 showed that service three received the highest final scores (0.200) and service one received the lowest (0.100) (Figure 5.2 and Table 5.2). Service three had a person centred approach to individual skills, and a timetable to develop them was included in the service users' plans. Also, the plans were reviewed and improved regularly every three months. In service one, the plans and the service routines were written by the service managers and staff interpretations regarding the service users' interests and goals were not accurate. The plans were not reviewed for a long time, and the staff were not familiar with their contents. In service two, the plans were not written based on the service users' needs, were not reviewed regularly and there were no follow ups.

Theme two: Relationships

Brief description: The service is aware of and understands the importance of relationships. It works to support and develop existing and new relationships. Real opportunities are provided to develop relationship roles in different areas such as work, education, and recreation.

Figure 5.3. Theme Two and Its Attribute Scores in the Three Services

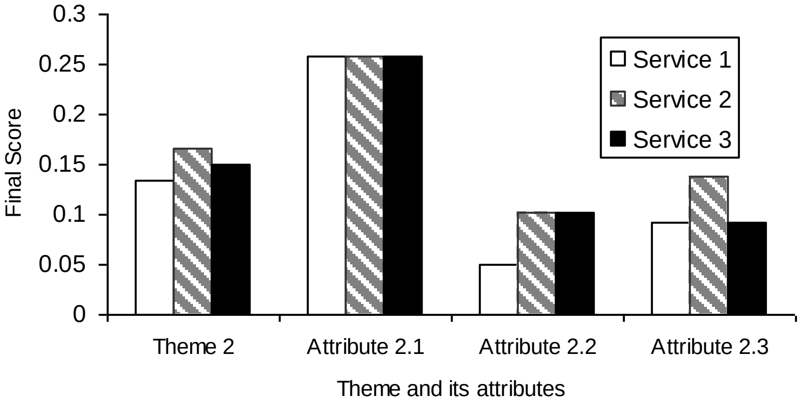


Table 5.3. Comparison of Services on Average, Raw, and Final Scores by Themes and Attributes

Theme	Service one			Service two			Service three		
	Average individual score	Raw score	Final score	Average individual score	Raw score	Final score	Average individual score	Raw score	Final score
Theme 2	-	-	0.134	-	-	0.166	-	-	0.151
Attribute 2.1	3	3	0.258	3.6	3	0.258	3.4	3	0.258
Attribute 2.2	2.2	1	0.051	2.4	2	0.102	3	2	0.102
Attribute 2.3	2.6	2	0.092	3	3	0.138	2.8	2	0.092

Note. Dashes indicate the items were not needed to be calculated

The final scores on the second theme for service two were higher than for the other services (0.166), with service one achieving the lowest score (0.134). Service two also obtained the highest score in attribute 2.3 and equal to service two in attribute 2.2, in theme two. Service two had the highest awareness and understanding of the importance of developing new and existing relationships (Figure 5.3 and Table 5.3).

Attribute 2.1: The service is aware and understands the importance of a range of relationships in the lives of service users.

Service one scores and narratives

Both raters' average individual score and raw score for service one were three. The service policy was based on understanding the importance of relationships among the service users. There was good general awareness and a specific policy to improve relationships for the service users. The manager and carers had a respectful tone when interacting with the service users. The service encouraged and supported a wide range of relationships, using different strategies such as group discussions, effective community involvement and BBQs with other service users. However, there were some patronising interactions between staff and the service users. The service had little information about service users' friends and the potential of new connections with friends. Also, the staff were not trained/skilled to improve relationships.

Service two scores and narratives

Raters' average individual score and raw score for service two were 3.6 and 3.0 respectively. The manager was very clear about the importance of relationships between service users and their families. The service effectively encouraged interaction among service users. The service users' families and friends had significant roles in improving the service users' relationships plans. The staff had an important relationship with the service users especially with those without family. The service was aware of maintaining contact with the previous service users and improving relationships was a focus in service users' plans. However, there was no clear document in the service policy regarding the importance of relationships and relationships were encouraged only to a limited extent.

Service three scores and narratives

Raters’ average individual score and raw score for service three were 3.4 and 3.0 respectively. The service was aware of relationships of different levels depending on age (former/current partner) and service users’ next of kin (children, parents, or friends). The service considered specific activities in the service to improve service users’ relationships. There were some efforts by the service managers to connect with people when the service user was back living in the community. The service was aware that the achievements in regards to relationships were limited and plans needed to be improved. However, most of the activities in the site were individual activities which increased the possibility of social isolation for the service users. Also, the community based programming to improve relationships was mostly relying on the congregation of people with disabilities.

All the services obtained the same final scores (0.258) in attribute 2.1 (Figure 5.3 and Table 5.3). All services were aware of the importance of improving service users’ relationships. Although service one had a clear policy based on improving relationships in the service, there were some patronising interactions between staff and other service users. The manager of service two was clear about the importance of relationships and encouraged the service users’ interactions with relatives, but there was no clear documentation in the service policy regarding improved relationships. Although the manager of service three had a positive view on relationships and her effort to provide a wide range of relationships for the service users was considerable, most of the service activities were provided individually for the service users, rather than improving relationships between the service users through group activities.

Attribute 2.2: The service works to provide real opportunities for relationships to develop in areas such as work, education, and recreation.

Service one scores and narratives

Raters’ average individual score and raw score for service one were 2.2 and 1.0 respectively. There was an emphasis in the service policy on providing opportunities for service users to socialise and build relationships with members of the wider community. There were few opportunities to develop relationships such as support to attend Technical and Future Education (TAFE), which is vocational training courses in Australia, and engaging in the service recreational programmes. These opportunities were limited and were not utilised by all of the service users.

Service two scores and narratives

Raters' average individual score and raw score for service two were 2.4 and 2.0 respectively. The service provided opportunities to improve relationships rather than forcing it. Also, the service users were interacting with other people at work or other social activities. For example, one service user was supported to attend the library where he was well known. However, the service had limited proactive efforts to improve relationships but once there the service was leaving it happen. Also, the service was not aware of the service's potential for developing relationships in various contexts.

Service three scores and narratives

Raters' average individual score and raw score for service three were 3.0 and 2.0 respectively. The service policy was based on providing opportunities to develop relationships. There were a few examples of efforts for improving relationships such as providing a casual job for one of the service users and support provided to four service users to attend TAFE. However, there was no constructive facility for the service users to develop their relationships through real work, education, or recreation opportunities. Service users were more involved in segregated group activities rather than in real integrated activities.

In attribute 2.2, both services two and three received a score of 0.102 and service one obtained the lowest score (0.051) (Figure 5.2 and Table 5.3). Both service two and three provided real opportunities to develop their service users' relationships in the community. Some examples were interacting with people at work and social activities. While service one's policy emphasised providing opportunities to improve the service users' relationships, the opportunities were limited and were not utilised for all service users.

Attribute 2.3: The service facilitates and supports existing and new relationships.

Service one scores and narratives

Raters’ average individual score and raw score for service one were 2.6 and 2.0 respectively. The service had limited programmes to improve existing relationships among the service users. Staff were supportive of two of the service users’ relationships through providing shared time and space for being together. Family relationships for the service users were considered in the service. The reconnection to the family and close relatives included participating in family ceremonies such as birthdays and funerals. Although the service was aware that there were no friendship relationships for some residents, there was no instigation of new relationships and no reconnection with former networks. There were no or limited relationships between the service users and neighbours. Some service users had negative relationships with neighbours due to behaviour issues, and some efforts to achieve effective communication with the neighbours had failed.

Service two scores and narratives

Both raters’ average individual score and raw score for service two were three. The service provided some opportunities for making family and friendship relationships. The service invited families for Christmas, birthday parties, family meetings, old friends were contacted and friends came to visit. The service encouraged contact between the service users, and prevented conflict between them. The service supported the neighbours’ relationships and their involvement in the service programmes. However, there was a passive approach to re-adapting the service users’ relationships, and the service role was to allow it to happen naturally. The service users’ relationships with other people out of the service only included helping the service users to physically present at the community without specific plan.

Service three scores and narratives

Raters’ average individual score and raw score for service three were 2.8 and 2.0 respectively. The service encouraged and supported family visiting and tried to maintain existing and new relationships through real opportunities. A venue was considered specifically for family visits. The families were welcomed to the setting and having them there was a priority. Also, the service users were supported to travel to visit or stay with family. However, there was no effort in the area of friends (especially former networks). Staff followed the plan rather than explored new ways to improve relationships, and the service structure was mainly focused on contacting other people with disabilities.

Comparison of the three services’ final scores showed that service two received the highest score (0.138) and service one and three obtained the lowest score (0.92) in attribute 2.3 (Figure 5.3 and Table 5.3). Service two considered some effective activities to support existing and new relationships through celebrating Christmas and birthdays. The service put effort into involving neighbours with activities to improve service users’ relationships. However, service one activities to improve existing and new relationships were very limited. There were no instigations of new relationships or reconnection to former networks and the service relationship with neighbours was very poor. Service three’s effort regarding improving relationships with service users’ friends was weak and the staff were not actively exploring ways to improve relationships. The service structure was mainly focused on contact with people with disabilities.

Theme three: Working together

Brief description: The service involves and works with a range of relevant stakeholders including the service user, family, friends of service users, staff, community resources, and advocacy groups in order to enhance community integration. The service works to increase knowledge in the community about people with acquired brain injury.

Figure 5.4. Theme Three and Its Attribute Scores in the Three Services

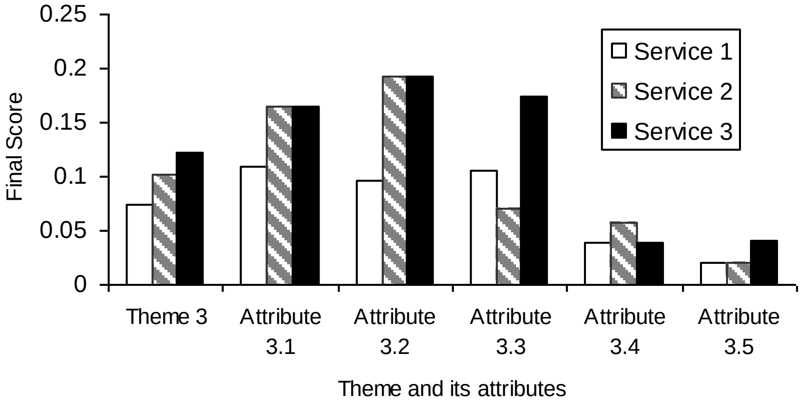


Table 5.4. Comparison of Services on Average, Raw, and Final Scores by Themes and Attributes

Theme	Service one			Service two			Service three		
	Average individual score	Raw score	Final score	Average individual score	Raw score	Final score	Average individual score	Raw score	Final score
Theme 3	-	-	0.074	-	-	0.101	-	-	0.122
Attribute 3.1	2.8	2	0.110	3.2	3	0.165	3.6	3	0.165
Attribute 3.2	2.6	2	0.096	3.4	4	0.192	4	4	0.192
Attribute 3.3	3.2	3	0.105	3	2	0.070	3.4	5	0.175
Attribute 3.4	2.4	2	0.038	3.4	3	0.057	2.8	2	0.038
Attribute 3.5	1.8	2	0.020	1.8	2	0.020	3.2	4	0.040

Note. Dashes indicate the items were not needed to be calculated

On the third theme, service one received the lowest score (0.074) and service three received the highest score (0.122). Service three also obtained the highest score and/or equal to another service in four of the five attributes in theme three. Service three had the highest attention to involvement and working with the service users, their family members, and staff with each other in the service programmes (Figure 5.4 and Table 5.4).

Attribute 3.1: The service works closely with the service user, family and friends.

Service one scores and narratives

Raters’ average individual score and raw score for service one were 2.8 and 2.0 respectively. The service policy was based on working together and the manager worked closely with programme users’ families. Policy and procedure was integrated on working together. Case managers had contact with families, and family members were involved in the programmes. The staff communicated with service users well and provided an example for this, Staff communicated well and openly with the service users. Specific contacts between the manager and family members were a positive aspect of the service. The manager contacted families about specific issues. However, the programme manager did not pay enough attention to regular family contact and did not have any role in making family contacts. Also, there was no attention to some attitudes/interests of the programme users such as pottery, and football.

Service two scores and narratives

Raters' average individual score and raw score for service two were 3.2 and 3.0 respectively. The manager had effective contact with the service users' families. The service kept regular contact with the families during weekly/fortnightly visits and phone calls. The service asked for family input on a regular basis. The service referred the service user's family members to a counselling service, after a phone call with them, to understand their grief and loss issues. The raters confirmed that knowing the service user was one of the priorities in the service for the new service users, and the service was required to liaise with family and service users to plan their lifestyle. Families' or relatives' involvement was very important in the lifestyle plan to find the service users' competencies, abilities and needs. However, the service information regarding the service users' friends and distant/disconnect family was very superficial. The staff did not put enough effort into connecting with them and the service was not actively gathering more information.

Service three scores and narratives

Raters' average individual score and raw score for service three were 3.6 and 3.0 respectively. The service management goals were based on the service users' and families' opinions and the service users and their families were personally involved in reviewing meetings. The service considered family support to develop the service users' goals. Family members attended meetings three times per year, to be involved in reviewing the service users' plans. The service facilitated family involvement in the services through encouraging relationships between the service users and their families. Family visiting was facilitated to directly engage families in the service user's issues and plans. The service had a detailed booklet for each service user and their issues followed up through the meetings with family and service users conducted in the service. For example, the issue raised by a service user was followed up by a team consisting of service manager, family and service user within three days. However, the level of contact with family was superficial and the carers had no role in working with families. Also, there was no evidence to show that the service was connecting with the service users' friends.

Overall, two of the services (services two and three) received equal scores (0.165) in attribute 3.1 (Figure 5.4 and table 5.4). The family of the service users in services two and three had access to the service users' information and reports (with consideration given to the privacy policies) and had regular meetings with the staff and service managers. However, the raters gave the lowest final score (0.110) to service one because they did not find enough evidence to support attention by the service manager to improve family contacts and considering service users' perspectives to make more contacts with significant others.

Attribute 3.2: The service staff work as a team.

Service one scores and narratives

Raters' average individual score and raw score for service one were 2.6 and 2.0 respectively. There were good daily communications among staff. There were 15 minutes of handover and regular daily meetings between carers, and weekly meetings between service users, carers, and house coordinators, or case managers in each setting. There were two or three annual meetings for all the service users, carers, house coordinators, and case managers in the two settings. In addition, if an issue was raised, team meetings took place. However, based on the staff feedback, attention to the objectives in the meetings was more optional than structured and staff just followed the plans written by the manager rather than having constructive input in the meetings or delivery of the services. Plans were developed at head office and staff signed them off and were limited to a care role. Any changes in the plans were ordered by the more senior staff.

Service two scores and narratives

Raters' average individual score and raw score for service two were 3.4 and 4.0 respectively. The service was structured based on teamwork. A team atmosphere existed in the service and staff worked together to resolve issues if necessary. Advice was taken to the manager who acted as a mouthpiece at the planning meetings. The service had compulsory daily meetings and two full day meetings per year for all permanent staff. Everyone was encouraged to contribute in the meetings. Also, if some issues came up, a small group gathering was needed, and then extensive discussions took place in staff meetings. The service manager was on site and managed everything closely with team cooperation. The service users' plans were discussed in the meetings and staff were aware of them. However, the goals considered for the service users were low level with no timeline.

Service three scores and narratives

Both raters' average individual score and raw score for service three were four. The staff worked closely together with good communication and information interchange between the managers and staff. There were two handovers per day, note sharing, and regular weekly team meetings for all allied health and care workers. The service conducted five weekly community meetings with staff to discuss service users' plans. The service team had interdisciplinary meetings three times per year to review changes in the service users' plans. The service staff were working based on the discussed timetable for goals planned in the meeting. The staff included professionals from all disciplines and if needed, experts were invited to resolve service users' issues and external consultants were provided. However, the care workers did not make any input into the services and they just followed the instructions.

On the whole, in attribute 3.2, service one achieved the lowest final score (0.096) and services two and three together received the highest final score (0.192) (Figure 5.4 and Table 5.4). Both service two and service three had good communication and information exchange between managers and staff and there were regular meetings to share service users' information, plans and issues. However, service one's team meetings were mostly optional rather than structured and the staff were just following the plans designed by the head office rather than giving input based on their professional knowledge and information about the service users.

Attribute 3.3: The service accesses, and works collaboratively with community.

Service one scores and narratives

Raters' average individual score and raw score for service one were 3.2 and 3.0 respectively. The service users had access to community resources such as public transportation, pharmacy, medical and rehabilitation centres, shops, and TAFE was also accessible for service users. The service also liaised with council recreation officers and an employment agency. However, the service had no real or little collaboration with the community that focused on integration.

Service two scores and narratives

Raters' average individual score and raw score for service two were three and two respectively. Although there were some opportunities to connect the service to the community such as clubs and art groups, the service was mostly connected to Headwest and churches. Just one of the service users attended woodwork and the gym, and the rest of them used only one day of Headwest's recreation activities. Also, connection with neighbours was very limited and only one neighbour was coming over to help out.

Service three scores and narratives

Raters' average individual score and raw score for service three were 3.4 and five respectively. The service worked collaboratively with the community in general and in all aspects. The service's community access was broad and included local council, Headwest, leisure centres, delicatessen shops, etc.

Considering scores in attribute 3.3 showed that service three obtained the highest final score (0.175) compared with other services. While this service had broad access to community services and was working collaboratively with a wide range of community recourses, service two had weak and inadequate access and collaboration with the community. Service two received the lowest final score (0.070) in this attribute (Figure 5.4 and Table 5.4).

Attribute 3.4: The service works cooperatively with advocacy groups.

Service one scores and narratives

Raters’ average individual score and raw score for service one were 2.4 and 2.0 respectively. Although documents showed that the service in the two settings worked cooperatively with advocacy groups and guardians working through the Office of the Public Advocate, staff were not aware of engaged with guardians. The service also was not actively searching for working with advocacy supports. No action was taken towards assisting people to advocate for the service users.

Service two scores and narratives

Raters’ average individual score and raw score for service two were 3.4 and 3.0 respectively. The service had contact with Headwest. Four service users had guardians (some shared). The guardians/public trustees were involved in any major changes. The service manager cooperatively worked with guardians to inform them about service users’ money, finance and housing. However, the service was not proactively seeking other forms of advocacy supports.

Service three scores and narratives

Raters’ average individual score and raw score for service three were 2.8 and 2.0 respectively. The service documents showed that the service worked with advocacy groups such as Headwest. The service manager promoted the service users’ access to advocacy as needed. There were some brochures in the setting regarding information about access and use of advocacy supports. However, there was no evidence of application for personal advocacy for any of service users.

Generally, services one and three received equal final scores (0.038) in the evaluation process and service two with a final score (0.057) provided evidence that it had the highest level of working with advocacy groups in comparison with the other services (Figure 5.4 and Table 5.4). While service two had reasonable contact with advocacy groups for most of the service users (four out of six), services one and three were not proactively engaged with advocacy groups.

Attribute 3.5: The service enhances knowledge in the community about people with ABI.

Service one scores and narratives

Raters' average individual score and raw score for service one were 1.8 and 2.0 respectively. The service was aware of presenting positive images of people with ABI to the community. Some brochures were available in the setting for the new service users and families and the service manager had preliminary personal contact at community venues. However, there was no formal approach to enhance community awareness regarding ABI such as media engagement and community presentation. The brochures were not distributed in the community.

Service two scores and narratives

Raters' average individual score and raw score for service two were 1.8 and 2.0 respectively. A campaign was planned about the services provided by the service. The service tried to enhance the community's knowledge about the ABI using various methods such as publishing articles in the service's newsletter, partnership with Hale School to raise students' awareness and talking with community members to keep regular contact with the service. However, there was no evidence to show that the service had any serious plan regarding community awareness in the future.

Service three scores and narratives

Raters' average individual score and raw score for service three were 3.2 and 4.0 respectively. The service tried to enhance community knowledge through publishing some brochures for hospitals, residents, families, and neighbours, preparing educational DVDs about prevention of brain injury and ways to return people with ABI to community, connecting with potential television services regarding ABI, education services for the local schools and university council interagency forums, liaising with local shops, and participating in inter-agency forums. However, there was no positive imagery conveyed in the tone of language that the service was using to enhance community knowledge about ABI and its consequences. Preparing DVDs was the only plan for the future with no evidence of its commencement.

Overall, when comparing services in regard to enhancing community knowledge about people with ABI, services one and two shared a low final score (0.020), and service three received a higher final score (0.040) (Figure 5.4 and Table 5.4). Service three ran regular education sessions regarding brain injury and its effects in the community through schools, university and local councils, and through participation in interagency forums. Also, they published and distributed some brochures in hospitals and among families to improve community knowledge about living with ABI. The reasons why services two and three received a low score in this attribute were the lack of future plans and formal approaches for improving community awareness regarding living with ABI.

Theme four: Development of skills

Brief description: The service focuses on the development of individual skills and abilities that facilitate community integration. These include encouraging and developing social skills, occupational skills, skills to access community resources, and skills to minimise risk.

Figure 5.5. Theme Four and Its Attribute Scores in the Three Services

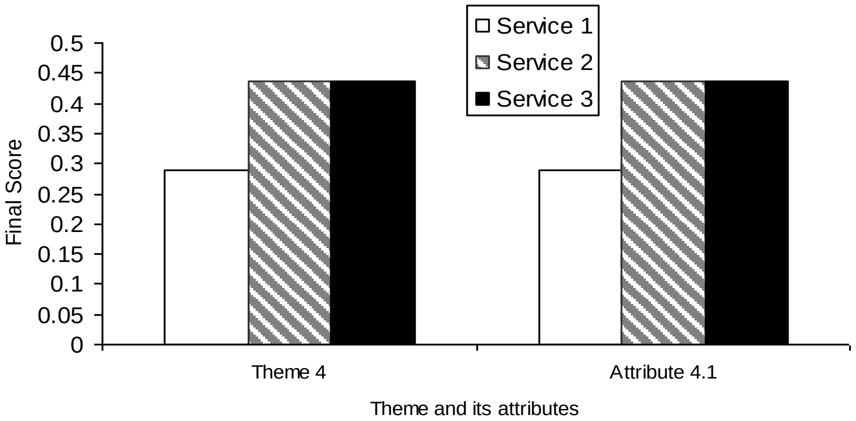


Table 5.5. Comparison of Services on Average, Raw, and Final Scores by Themes and Attributes

Theme	Service one			Service two			Service three		
	Average individual score	Raw score	Final score	Average individual score	Raw score	Final score	Average individual score	Raw score	Final score
Theme 4	-	-	0.290	-	-	0.435	-	-	0.435
Attribute 4.1	2.2	2	0.290	3.4	3	0.435	3.6	3	0.435

Note. Dashes indicate the items were not needed to be calculated

Comparing the three services' final scores on the fourth theme (which is equal to attribute 4.1 as there is only one attribute in this theme) showed that both service two and three obtained higher scores (0.435) than service one (0.290) (Figure 5.5 and Table 5.5).

Attribute 4.1: The service provides opportunities for the development of skills that are relevant to the needs of service users that contribute to community integration.

Service one scores and narratives

Raters' average individual score and raw score for service one were 2.2 and 2.0 respectively. The service policy was committed to ensure all service users have the opportunity to develop and maintain skills and the opportunity to participate in activities that enable them to achieve valued roles in the community. The service considered some social skill activities for the service users through focusing on specific areas such as shopping and money handling. The service manager was aware of social skills barriers for the service users. However, there was no focus on roles or skills in planning or coordinating service provision. There was no evidence of a specific plan to improve existing or pre existing skills in the service.

Service two scores and narratives

Raters' average individual score and raw score for service two were 3.4 and 3.0 respectively. The service tried to identify and improve the competencies and skills of each service user through giving them responsibility. Staff understood the complexity of ABI and were responsible for initiating or improving the social skills such as shopping, handshaking, conversation, getting responsibility in the service activities. However, the service opportunities to develop the service users' skills were limited to the service activities and sometimes relevant community involvements. The focus of service programmes was on day to day skills and there was no evidence of a comprehensive programme to develop the service users' skills.

Service three scores and narratives

Raters' average individual score and raw score for service three were 3.6 and 3.0 respectively. The service had a focus on domestic skills and it had solid planning regarding specific skills such as social, occupational, and financial skills. The service tried to develop service users’ skills in different aspects of social inclusion through involving the service users in real activities such as shopping, cooking, and house keeping. The staff were responsible for developing the service users’ skills and they provided feedback to develop the programmes. The service users who achieved higher skills were transferred from their houses to another house where residents required less support and more skills. However, there were limited opportunities to apply the service users’ skills to life in the community. There was no evidence regarding relationships related to skill development and the programmes had low intensity to the item.

Both services two and three identified and improved skills needed for community integration through giving real responsibilities or roles to service users in shopping, cooking, and house keeping. These services were also involved in the plans to develop service users’ skills. However, service one had no focus on developing skills in the service planning and there was no specific plan to improve existing or pre existing skills for community integration.

Theme 5: Community based practices

Brief description: Many service practices are based in typical community settings. The service has developed linkages and networks with the community that promote independent living for service users.

Figure 5.6. Theme Five and Its Attribute Scores in the Three Services

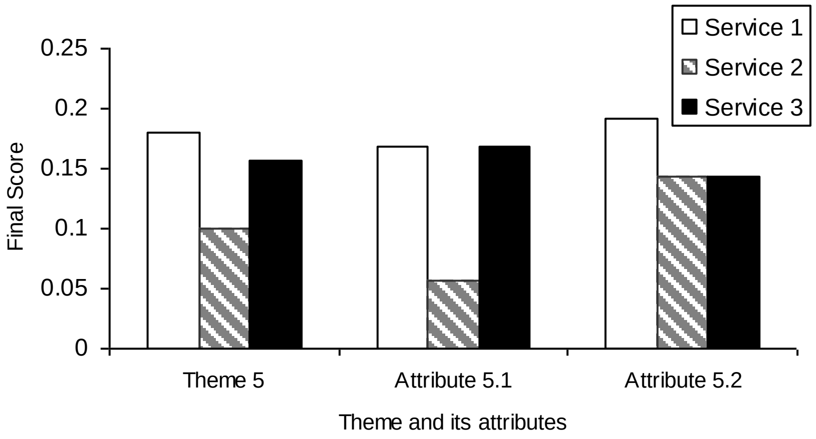


Table 5.6. Comparison of Services on Average, Raw, and Final Scores by Themes and Attributes

Theme	Service one			Service two			Service three		
	Average individual score	Raw score	Final score	Average individual score	Raw score	Final score	Average individual score	Raw score	Final score
Theme 5	-	-	0.180	-	-	0.100	-	-	0.156
Attribute 5.1	3.4	3	0.168	2.6	1	0.056	3.6	3	0.168
Attribute 5.2	3.6	4	0.192	3.6	3	0.144	3.2	3	0.144

Note. Dashes indicate the items were not needed to be calculated

Comparing the three services final scores on the fifth theme showed that service one obtained the highest score (0.180) followed by service three (0.156) and service two (0.100). Service one also obtained the highest score and/or equal to another service in the two attributes in theme five. Service one was practiced based on community settings and developing linkages with the community to promote independent living in the community for service users, more than the two other services (Figure 5.6 and Table 5.6).

Theme 5: Community based practices

Attribute 5.1: The service has well-developed linkages and networks with community resources.

Service one scores and narratives

Raters' average individual score and raw score for service one were 3.4 and 3.0 respectively. The service considered effective linkages with community resources for the service users including TAFE, Headwest, and recreation centres. The service manager had wide personal contact with the community resources. However, there was limited evidence of efforts in developing the linkages and engaging the service users with the community through community resources.

Service two scores and narratives

Raters' average individual score and raw score for service two were 2.6 and 1.0 respectively. The service provided linkage with some of the community resources such as TAFE, Headwest, the local recreational centre, and local clubs. The service manager was in contact with the community resources independently or through the larger service. However, there was limited evidence of using the community resources in the service. Although the staff encouraged and supported the service users to use the community resources, most of the service users were not involved in the community activities.

Service three scores and narratives

Raters' average individual score and raw score for service three were 3.6 and 3.0 respectively. The service was actively trying to provide suitable access for the service users to use community networks such as TAFE, Victoria Park Council, Headwest, Department of Housing and the local recreation centre. The service encouraged and supported the service users to interact with other people with or without disability linked with hospital services, art centres, basketball, football, and a dancing club. However, there was no evidence to show that the service users were involved in most of the community practices. The service users' preferences were not completely considered in linkages with community resources. For example, some of the service users were interested in being involved with Riding for Disabled Association of Australia Ltd. while the dancing club was not their preference.

Both services one and three received higher scores (0.186) than service two (0.056) in attribute 5.1 (Figure 5.6 and Table 5.6). Both service one and three had effective linkages with community resources, and their managers had wide personal contacts with them for the service users. Although service two provided some linkages with community resources, there was limited evidence to demonstrate that service users were using them.

Attribute 5.2: Service practices are located in typical community settings.

Service one scores and narratives

Raters' average individual score and raw score for service one were 3.6 and 4.0 respectively. The service policy was committed to, wherever practicable, clients having access to the same places as the rest of community, or receiving their services in community settings alongside other members of the community. The service was located in a typical community setting. The service users had access to local services like cafés, shops, and hairdressers and staff supported them to participate in the local community activities and to contact neighbors. However, the service structure was based on segregated options. The local community resources were limited and high levels of support provided by the staff reduced opportunities for the service users to be involved in the community practices.

Service two scores and narratives

Raters’ average individual score and raw score for service two were 3.6 and 3.0 respectively. The service was located in a residential street in a typical community setting and there was easy access to library, public transport, and recreation centres. Some of the service users often used the public transport independently. Most of the service users were involved in community activities just one day per week. However, the service community activities for the service users was limited to just one day per week. Instead of involving the service users in the community activities, the service preferred to provide facilities in the service, for example general practitioners, music and art trainers came to visit the service users. Most of the service programmes were in segregated settings. Staff provided high levels of support for the service users and did not provide opportunities for them to be involved in their daily activities independently.

Service three scores and narratives

Raters’ average individual score and raw score for service three were 3.2 and 3.0 respectively. The service was aware the importance of service users accessing the community. The service was in a residential setting, and the houses in the service were built based on community homes. The service users had access to TAFE, the local shopping centre, local shops, and the recreational centre. They were supported and encouraged to experience and learn in the community settings through attending TAFE courses, shopping, home activities, either alone, or with care workers’ support. However, although there was a local recreational centre close to the service, the service tried to provide these services within the setting rather than involving the service users in the community. The service group and individual activities in the setting were based on segregated activities and the service users were not encouraged to collaborate with each other when there was a group activity.

Service one received a higher score (0.192) than the other services which both received a score of 0.144 in attribute 5.2 (Figure 5.6 and Table 5.6). Service one was located in a typical community setting and its policy focused on facilitating service users' access and activities in the community. Service users had access to local community services. Although both services two and three were located in typical community settings with easy access to community resources, the services preferred involving the service users in activities in the setting rather than in community based practices.

Theme six: Support for service users
Brief description: The service promotes the involvement of a range of support people and assistive technology to enable service users to live in the community. Staff employed by the service have skills and personal qualities that are appropriate for working with service users.

Figure 5.7. Theme Six and Its Attribute Scores in the Three Services

Table 5.7. Comparison of Services on Average, Raw, and Final Scores by Themes and Attributes

Theme	Service one			Service two			Service three		
	Average individual score	Raw score	Final score	Average individual score	Raw score	Final score	Average individual score	Raw score	Final score
Theme 6	-	-	0.059	-	-	0.101	-	-	0.101
Attribute 6.1	2	1	0.034	2.4	2	0.068	2.6	2	0.068
Attribute 6.2	2.8	2	0.066	3.8	4	0.132	4	4	0.132
Attribute 6.3	2.8	3	0.078	3.4	4	0.104	4	4	0.104

Note. Dashes indicate the items were not needed to be calculated

Final scores on the sixth theme were equal for services two and three (0.101) and service one received the lowest score (0.059). Both services two and three also obtained the highest score compared with the other service in the three attributes in theme six. These services provided a better range of support by skilled staff and in using assistive technology to promote service users' living in community compare to service one (Figure 5.7 and Table 5.7).

Attribute 6.1: The service promotes the development of service users through natural support such as volunteers, advocates, and peers.

Service one scores and narratives

Raters' average individual score and raw score for service one were 2.0 and 1.0 respectively. The service manager understood the importance of natural support for service users. Some of the service users had family supports and they usually came to visit the service users. However, there was no evidence of the service's attempts, plans, or focus to develop natural support such as volunteers or neighbours' support for the service users.

Service two scores and narratives

Raters' average individual score and raw score for service two were 2.4 and 2.0 respectively. The service understood the importance of using natural support for the service users. It had some plans to promote the natural support resources for some of the service users through interactions with neighbours, Headwest, church, and foot ball volunteers. However, a lack of volunteers was obvious especially in the service activities and usually paid supports were used for them. Also, sometimes the volunteers were not suitable for the service users.

Service three scores and narratives

Raters' average individual score and raw score for service three were 2.6 and 2.0 respectively. The service understood and accepted the importance of the role of natural support such as volunteers to develop the service users' abilities to return to the community. The service used some advocacy support for some service users such as Headwest, and churches. The service had reasonable interactions with neighbours. However, the service connections were not based on the service users' desires, and most of the service users were not involved. The volunteers were not involved with all of the service users and only some of them had peers.

Service one had a lower score (0.034) than the other two services (0.068) in attribute 6.1 (Figure 5.7 and Table 5.7). Services two and three understood the importance of natural supports and had plans for some service users to improve their support through connecting with community resources such as neighbours. However, there was no evidence of any effort by service one to find natural supports such as neighbours' support and voluntary jobs.

Attribute 6.2: The service ensures that staff have an appropriate mix of skills, experiences, and personal qualities.

Service one scores and narratives

Raters' average individual score and raw score for service one were 2.8 and 2.0 respectively. The service policy had emphasised proper supervision of the employees and regular appraisal of their performance. The service considered personal characteristics of staff as more important than their previous experience. Their performances were appraised regularly during their work. However, although the service managers were health professionals, their office was located in a different location than the service settings. All staff in the settings were care workers and had no professional trainings.

Service two scores and narratives

Raters’ average individual score and raw score for service two were 3.8 and 4.0 respectively. The service had a policy to employ the staff who were trained in TAFE to provide support and care for people with disabilities. The service had plans to improve staff skills through providing training opportunities whilst they were employed. The service had experienced staff with in-depth understanding and knowledge about community integration. New staff had 11 days orientation. However, all staff in the service except for the service manager were care workers. The service manager, who was the only allied health professional in the setting, supported the staff continuously. Health professionals from the larger connected service were requested to visit service users, if it was required.

Service three scores and narratives

Both raters’ average individual score and raw score for service three were 4.0. The service policy emphasised that the staff should be employed based on the service users’ needs in order to return them to the community. The staff included care workers and allied health professionals from different disciplines including physiotherapy, occupational therapy, psychology, nursing and speech pathology. Being open minded and flexible, acceptance of views and being able to work in a team were considered as the main characteristics for staff. The service organised three days’ orientation for new staff. Although the policy emphasised the importance of improving staff competency through attending workshops or conferences, there was no evidence to show that staff regularly attended the update trainings.

Both services two and three received higher scores (0.132) than service one (0.066) in attribute 6.2 (Figure 5.7 and Table 5.7). Service two and three had clear policy regarding employing experienced staff who were familiar with service users’ needs and training of staff to improve their knowledge about community integration. Staff had orientation days before starting to work. Staff in service one had no professional training and their manager who was a health professional did not have direct supervision over the staff as her office was located out of the settings.

Attribute 6.3: The service provides appropriate specialist support including assistive technology to promote community integration such as employment support, counselling and family intervention, and clinical service.

Service one scores and narratives

Raters' average individual score and raw score for service one were 2.8 and 3.0 respectively. The service considered the service users' needs and abilities, and provided appropriate special supports for them. The service provided specific supports which were not in available in the service through connecting with agencies/companies such as Technical Aid to the Disabled in Western Australia, the Independent Living Centre, TAFE, Communication Devices and Wheelchair Maintenance. However, some facilities for the service users were requested to be provided through other agencies, which were usually made available although with long delays. There was no evidence to show that plans regarding effective use of the specialist support were followed by the staff.

Service two scores and narratives

Raters' average individual score and raw score for service two were 3.4 and 4.0 respectively. The service provided specific supports such as assistive equipment, psychologist, occupational therapist, physiotherapist, behavioural management team, enrolled nurse, clinical nurse, and general practitioner for the service users through the larger connected service. The staff followed the plans provided by the specialists and reported the service users' needs to the service manager. The service users' needs were supported as soon as possible by the larger connected service. However, the service manager was the only professional person in the setting and the other staff only provided care support to the service users. The service users' needs were supported indirectly (by the larger connected service) and with long delays. Also, the communication aids needed by the service users were not available.

Service three scores and narratives

Both raters' average individual score and raw score for service three were 4.0. The service directly provided special facilities and supports based on service users' needs. The service users with special needs were supported to be involved in the community activities. These facilities included counselling, family interventions, a wide range of allied health clinical services, technical assistive devices and technology, electric wheelchairs, scooters, hoists, etc. Specific plans were considered and followed for each service user by the professionals. For example, the service was liaising with some open employment providers to use their support for the service users' needs. However, there was limited evidence of communication between health professionals and care workers in regards to specialist supports needed for the service users.

Final scores for both services two and three were 0.104 which was higher than the score for service one (0.078) in attribute 6.3 (Figure 5.7 and Table 5.7). Both service two and three had plans, which were thoroughly followed by the staff, to provide appropriate specialist support required by each service user. They provided specialist services either directly through their staff or through the larger connected service. However, for service one there was no evidence to show that plans regarding effective use of the specialist support were followed by the staff.

Theme seven: Service setting and atmosphere

Brief description: The service is provided in a comfortable, welcoming, and friendly manner. Service users are treated with consideration and respect. The service is accessible for all stakeholders.

Figure 5.8. Theme Seven and Its Attribute Scores in the Three Services

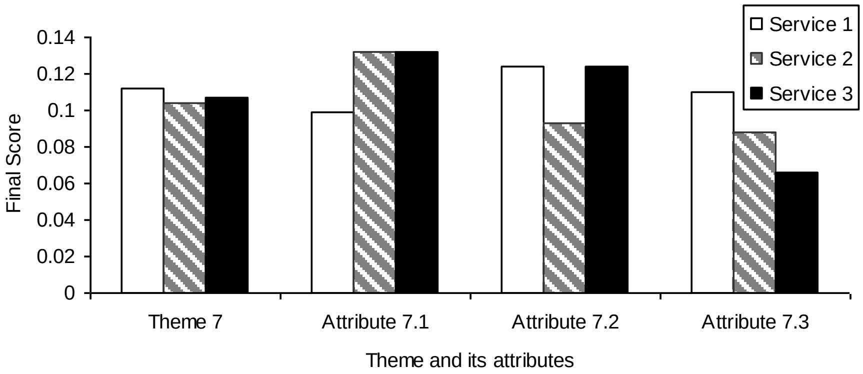


Table 5.8. Comparison of Services on Average, Raw, and Final Scores by Themes and Attributes

Theme	Service one			Service two			Service three		
	Average individual score	Raw score	Final score	Average individual score	Raw score	Final score	Average individual score	Raw score	Final score
Theme 7	-	-	0.112	-	-	0.104	-	-	0.107
Attribute 7.1	3.8	3	0.099	4	4	0.132	3.4	4	0.132
Attribute 7.2	4.2	4	0.124	3.6	3	0.093	4	4	0.124
Attribute 7.3	4.2	5	0.110	3.6	4	0.088	3.2	3	0.066

Note. Dashes indicate the items were not needed to be calculated

The highest score in this theme was 0.112 (service one) while the lowest score was 0.104 for service two. Although service one provided better accessibility for the service users and other stakeholders, and the setting was more appropriate for the service users than in other services, its atmosphere was not as comfortable as the other services (Figure 5.8 and Table 5.8).

Theme 7: Service setting and atmosphere

Attribute 7.1: The service atmosphere is friendly, comfortable, welcoming, and respectful.

Service one scores and narratives

Raters’ average individual score and raw score for service one were 3.8 and 3.0 respectively. There was a friendly and respectful interaction and tone between the staff and the service users. Staff had friendly and respectful interaction with the service visitors. Generally the service had a welcoming atmosphere. However, the temperature of the service rooms was not suitable for the service users and they were mostly complaining of the cold. The service had an uncomfortable and shabby appearance, and some staff and service users talked too loudly. There was limited interaction between the service users. They were mostly involved with their daily activities individually.

Service two scores and narratives

Both raters’ average individual score and raw score for service two were 4.0. The service had a warm and friendly atmosphere. Welcoming and helpful staff, lots of pictures of service users on the walls, and home-type decorations and artworks were some examples of the friendly atmosphere of the service. The manager and staff had a welcoming manner and a positive tone when communicating with the service users and visitors. The service’s physical condition was comfortable designed for the service users. The service gathered and shared a wide range of information for the service users based on their needs. However, there were some cultural issues and misunderstandings between the service users. There was no evidence of planning to resolve the cultural issues as people from different countries were not treated according to their culture.

Service three scores and narratives

Raters’ average individual score and raw score for service three were 3.4 and 4.0 respectively. The service was designed comfortably for the service users. The service managers and staff mostly had welcoming and positive behaviour with the service users and visitors. Respecting service users and relatives was one of the major themes in the service. Service users were treated as if they were living in their own house. Service users’ preferred activities such as religion, sport, etc. were respectfully considered. However, there were some negative interactions between staff and service users. Some staff were behaving towards the service users with a medical model and top-down view. There was limited evidence regarding encouragement or development of effective communication between the staff and service users. Staff appeared to be overloaded by their duties and different staff were coming and going, so they were rarely communicating with the service users.

Both services two and three received higher scores (0.132) than service one (0.099) in attribute 7.1 (Figure 5.8 and Table 5.8). Services two and three were treating their service users and visitors respectfully and provided a warm and welcoming atmosphere for them. The setting was comfortable and they were treated as if they were living in their own house. However, limited interaction between the service users, low temperature, shabby appearance and noise in service one made it uncomfortable for the service users.

Attribute 7.2: The service is accessible for service users and other stakeholders.

Service one scores and narratives

Raters’ average individual score and raw score for service one were 4.2 and 4.0 respectively. The service was close to public transport, and there was no barrier for the service users to access the community. Most parts of the service were easily accessible for the service users. There was an adequate number of parking bays in the service for the service users, staff and visitors. The service users had easy access to areas and equipment in the service. However, the staff equipment and documents were not accessible to the service users. The service users had trouble-free access to their own possessions. Nevertheless, in one of the settings, two of the service users with physical disabilities did not have access to rooms on the second floor and the phone was locked and the service users had restricted use of the phone.

Service two scores and narratives

Raters’ average individual score and raw score for service two were 3.6 and 3.0 respectively. The service was close to public transportation, and had a private car park. Therefore, it was easily accessible to the service users, staff and visitors. The service interior was accessible for all service users except for one of them who could only move around with an electrical wheelchair. The service users had easy access to their possessions and rooms. There was enough mobility equipment for the service users who needed mobility aids. However, some parts of the service were not accessible for the service users. For instance, the kitchen and gates were not accessible to any of the service users. Except for one of the service users who had a key, no one could get through the gate. People other than the service users and the staff required permission to get through gates. The service hallway was inaccessible for a service user who was using an electric wheelchair.

Service three scores and narratives

Both raters’ average individual score and raw score for service three were 4.0. The service users, relatives, and staff had suitable access to the service. There was easy access to train and bus stations, a big car park, and a separate gate for service users and staff. There were no time restrictions for service users to enter or exit the service on a daily basis. There were specific and separate living rooms for service users based on their abilities and they had easy access to their possessions. The service office was separate from the service users’ houses. However, there was limited evidence of re-evaluation of service users’ accessibility. For example access to the houses through heavy sliding doors was difficult for some of the service users.

Service two had a lower score (0.093) than the other two services which both achieved a score of 0.124 in attribute 7.2 (Figure 5.8 and Table 5.8). Services one and three had accessible settings with easy access to public transport and enough parking bays for service users and visitors. Service settings and equipment were freely accessible for the service users except for staff rooms. The service users could freely access their possessions. However, some parts (such as kitchen) of the setting in service one were not accessible to any of the service users and the setting had some physical limitations for one of the service users who was using an electric wheelchair. The service users did not have the freedom to have visitors without getting permission or making an appointment.

Attribute 7.3: The service setting is appropriate to the service purpose.

Service one scores and narratives

Raters’ average individual score and raw score for service one were 4.2 and 5.0 respectively. The service settings were modified based on the service users’ needs. The service users in one of the settings were living in the separate villas. However, one of the service users with higher physical needs, who needed more direct help from the staff, was living in a villa where the office was located. In the other setting, the service users were accommodated in a big house with separate rooms and shared common kitchen, dining room, and lounge room. The service settings were clearly identified based on the service users’ needs and purpose, and the service users were responsible to manage and maintain the house, but carers were available, if necessary. The service setting was suitable for the service's purpose for accommodation and support.

Service two scores and narratives

Raters' average individual score and raw score for service two were 3.6 and 4.0 respectively. The service was designed based on providing support accommodation. The service's external view looked very homely and the internal design was mainly home-like with special supports based on the service users' needs. The service prepared and served food for the service users. However, the service was badly maintained in some areas and had some institutional characteristics, especially the kitchen. Food was served by the staff and the kitchen was not accessible to the service users.

Service three scores and narratives

Raters' average individual score and raw score for service three were 3.2 and 3.0 respectively. The service setting design was based on the service users' needs for living in the community. The service accommodated the service users in separate houses considering their needs for support or special facilities. The service users were living in houses that were similar to normal houses in the community. Each of the houses had individual bedrooms with shared kitchen and bathrooms. The service was located close to shops, and TAFE. However, the multi-disciplinary approach and hospital-like decoration made the service users feel like being in a hospital rather than a home.

Comparison of the three services' final score showed that service one received the highest score (0.110) and service three obtained the lowest (0.066) in attribute 7.3 (Figure 5.8 and Table 5.8). Both settings in service one with separate villas or shared house with separate rooms, were modified based on the service users' needs and the service purpose. The service users were managing their own house and were getting help from care workers, only if needed. Although service two was designed as being very homely, the setting's appearance and service users' limitations to access the kitchen made it more like an institution rather than a house. Despite the purpose-based design of houses in the service three setting, a multi-disciplinary approach of the staff and hospital-like decoration made the service users feel like being in a hospital rather than a home.

In a broader view on the final scores when comparing the percentage of final score that each service had achieved (Table 5.1), service one was scored the lowest in the first four important themes (ranging between 40 to 54%) in comparison with the two other services (ranging between 50 to 73%). Except for scores for themes three and five, services two and three received very similar scores in all themes. Service three had considerably higher scores in themes three and five than service two. All services achieved a score of higher than 70% in theme seven which was the theme with the lowest priority weight for a successful community integration programme. Overall, the raters' scores for the three services demonstrated that service three which achieved 62% of PACIA score covered more characteristics of a successful community integration programme than the other evaluated services.

5.2.4.3 ***Issues in the evaluation process.***

This section presents information gathered from the raters at the end of the evaluation process based on the PACIA feedback booklet. The results are presented in two parts. In the first part, preparation of the evaluation team is discussed. The second part consists of implementation issues including clarity of themes, attributes, and indicators, and ease of identifying evidence to rate attributes. Some narratives from raters' feedback are used to support the results. Feedback results are followed by a short discussion based on the data received from the Expert Panel who participated in the development of PACIA and the researcher's conclusions.

1. Evaluation team preparation

The raters confirmed that the guideline booklet was informative, the content and process of the evaluation was described extensively, and the information complemented the subsequent training. The guideline provided an opportunity to make them more familiar with the themes, attributes, and PACIA.

The training provided a good overview of the evaluation process and useful information about how the tool was developed. Some points were raised which could improve the training section and facilitate evaluation.

- Intensity of training: Given the amount of information to be digested including familiarity with PACIA, allocating more time to the training session from one day to two days was suggested.
- Information about PACIA development: The guideline booklet could be more understandable if a brief explanation about the instrument development was added to the PACIA manual.
- Conciliation meeting: For some attributes, it was suggested that increased time for conciliation should be provided. Raters did become more familiar with PACIA items and could rate them easier as they progressed through the evaluations, suggesting that more conciliation time could be allocated in the first evaluation where multiple evaluations occurred.
- Terminology used in the guideline: Clear definitions in the guideline for some key terms such as ‘integration’, ‘mainstream’, ‘valued roles’, ‘aspects of relationships including paid/unpaid’, and ‘congregation and segregation’ could ensure shared understandings between raters. A glossary could be provided and more discussion on terms during training would address this issue.
- There were no comments on the site visits, interviews or observations.

2. Issues in implementation of the instrument

The raters reported that the themes, attributes, indicators, and sources of evidence were understandable and clear. PACIA was easy to use during evaluation of the services and its indicators and sources of evidence were helpful to identify the service characteristics. A behaviourally-anchored version of PACIA needs to be designed to facilitate the rating and reduce the amount of time needed to rate a service.

The themes and attributes that were reported to have issues and the suggestions for corrections by the raters are presented below.

Theme one: Person centred approaches and planning

Brief description: The service knows its service users very well and responds to their strengths and preferences in a highly individual way. Programmes are planned based on each service user's needs and aspirations.

Theme one was well outlined and clear, but some overlaps were identified between attributes 1.2 (The service closely follows the needs, aspirations, and preferences of the service user), 1.3 (The service focuses on service users' strengths and abilities rather than their disabilities), and 1.4 (The service plans and provides programmes based on each individual service user).

Attribute 1.3: The service focuses on service users' strengths and abilities rather than their disabilities.

All indicators for this attribute were well understood except for indicator 1.3.1 (The service has high and realistic expectations for service users. Service users are spoken about with respect and acknowledgment of their achievements) which seemed to be two separate ideas and could be split to avoid confusion.

Attribute 1.4: The service plans and provides programmes based on each individual service user

All indicators were well understood but there was an overlap between indicator 1.4.1 (Each service user has a structured plan that is individual and clearly linked to the identification of service user needs, strengths, and preferences) and attributes 1.2 (The service closely follows the needs, aspirations, and preferences of the service user) and 1.3 (The service focuses on service users' strengths and abilities rather than their disabilities. It was suggested that different words be used instead of 'needs, strengths and preferences' in the three sentences.

All questions for attribute 1.4, which were used as sources of evidence, were clear and helped in gathering evidence. It was suggested that question three, 'Are plans developed collaboratively?', and question four, 'Does the service support the involvement of other people in the planning process?' could be combined because they reflected the same goal of collaboration.

It was more difficult to rate service one with two settings than services with single sites. This difficulty was anticipated and raters were asked to develop an average score for the two settings and the conciliation process allowed for discussion of the rating difficulties.

Theme two: Relationships

Brief description: The service is aware of and understands the importance of relationships. It works to support and develop existing and new relationships. Real opportunities are provided to develop relationship roles in different areas such as work, education, and recreation.

It was suggested that the term ‘relationships’ in theme two be defined to make it more understood and clear.

Attribute 2.1: The service is aware and understands the importance of a range of relationships in the lives of service users.

The attribute and all indicators were well understood, however, there were two overlaps between the indicators. The first recognised overlap was between indicator 2.1.2 (The service encourages and supports a wide range of relationships between service users and other people) and indicator 2.1.4 (Positive relationships between staff and service users are encouraged). The second overlap was between indicators 2.1.2 and attribute 2.3 (The service facilitates and supports existing and new relationships). It was suggested to delete the word ‘support’ and to edit the sentence as ‘The service encourages a wide range of relationships between service users and other people’.

Attribute 2.2: The service works to provide real opportunities for relationships to develop in areas such as work, education, and recreation.

The attribute was well understood, but the phrase ‘real opportunities’ needed clear definition of what constituted a real opportunity. Although ‘real opportunity’ seemed vague, it was defined in the indicators as ‘lifestyle activities’.

The other problem in this attribute was that “most of the information about this came from the staff and may not always be a true reflection of what is actually occurring”. While the information collected from the staff could be biased, other methods of gathering information, i.e. reading documents and interviewing service users and their relatives, and observation were considered to reduce the possibility of bias in the collection of information.

Theme three: Working together

Brief description: The service involves and works with a range of relevant stakeholders including the service user, family, friends of service users, staff, community resources, and advocacy groups in order to enhance community integration. The service works to increase knowledge in the community about people with acquired brain injury.

Attribute 3.1: The service works closely with the service user, family and friends.

The attribute was understandable and very practicable in evaluation of the services. However, ‘works closely’ was found to be ambiguous and it was suggested that it be defined.

Attribute 3.2: The service staff work as a team.

The attribute and all of its indicators were well understood except for 3.2.2 (the programmes are driven by goals with clear and realistic timelines for service users and are not constrained by disciplinary orientations) that seemed to be out of place and was more about people plans rather than staff team work. To clarify the aim of the indicator, it was suggested that the sentence be rephrased to ‘The programmes are not constrained by disciplinary orientations, but are driven by goals with clear and realistic timelines for service users and followed through teamwork’.

All questions to find sources of evidence seemed helpful in gathering evidence except for question one (are service goals for service users documented with clear goals, activities, and timelines?) which was believed to be irrelevant to this attribute, as it talked about goals and plans being documented and does not reflect the attribute of ‘staff working together’. The question could be rephrased to match the attribute aim as ‘Are service goals for service users documented with clear agreed goals, activities, and timelines between disciplines?’.

Attribute 3.3: The service accesses, and works collaboratively with community services.

The attribute was understandable, however, there was an overlap with attribute 5.1 ‘The service has well-developed linkages and networks with community resources’. To clarify the differences between the two attributes, attribute 3.3 can be amended to ‘The service accesses, and works collaboratively with community services as a team’ and attribute 5.1 was suggested to be altered to ‘The service has well-developed linkages and networks with community resources to refer the service users’. All the indicators were understandable, but there was a suggestion to indicate some examples of community services.

Attribute 3.4: The service works cooperatively with advocacy groups.

If there was a definition of the advocacy groups, the attribute could be more understandable.

Attribute 3.5: The service enhances knowledge in the community about people with ABI.

Finding relevant information was more difficult given services will have a varied role to play in this type of action.

Theme five: Community based practices

Brief description: Many service practices are based in typical community settings. The service has developed linkages and networks with the community that promote independent living for service users.

Attribute 5.1: The service has well-developed linkages and networks with community resources.

If there were clear definitions for the terms ‘community resources’ and ‘well-developed’ in attribute 5.1, the attribute could be better understood and more clear.

Theme six: Support for service users

Brief description: The service promotes the involvement of a range of support people and assistive technology to enable service users to live in the community. Staff employed by the service have skills and personal qualities that are appropriate for working with service users.

Attribute 6.1: The service promotes the development of service users through natural support such as volunteers, advocates, and peers.

Gathering information for this attribute was challenging because it depended on who the rater spoke to and how much they knew about the person or how much the person could tell themselves. It was suggested that more emphasise be put on the importance of collecting data from different sources during the training.

Attribute 6.3: The service provides appropriate specialist support including assistive technology to promote community integration such as employment support, counselling and family intervention, and clinical service.

The attribute could be better understood if the phrase ‘and/or facilitates’ was added to the attribute definition. Therefore, the attribute could be modified to be ‘The service provides and/or facilitates appropriate specialist support including assistive technology to promote community integration such as employment support, counselling and family intervention, and clinical service’.

Theme seven: Service setting and atmosphere

Brief description: The service is provided in a comfortable, welcoming, and friendly manner. Service users are treated with consideration and respect. The service is accessible for all stakeholders.

Attribute 7.1: The service atmosphere is friendly, comfortable, welcoming, and respectful.

Attribute 7.2: The service is accessible for service users and other stakeholders.

As with attribute 1.4, in theme seven the raters had no difficulty in finding evidence for two of the services which had one setting, but it was more difficult to ascertain a score for service one with two settings. This difficulty was predicted but unavoidable. The raters were asked to think about an average score for the two settings and use it as the score for these two attributes in service one. In addition, the conciliation process allowed for discussion of the rating difficulties.

5.2.5 **Conclusion.**

The PACIA score for the three services ranged between 0.992 and 1.250 with an average percentage score of 57%. The highest score gained by the services was 1.250 which was 62% of the total PACIA score.

Although all three services were introduced and established with objectives that included community integration, programme characteristics varied. Based on the characteristics assessed during the PACIA evaluation, the services achieved considerably different scores in some themes and attributes. It was notable that the services with lower numbers of service users or the ones within which the staff were not rotated were able to receive higher scores in a number of attributes, based on their closer personal knowledge.

Feedback from the raters on the evaluation process was generally positive. The training provided a good overview of the evaluation process and useful information about how the tool was developed. There were suggestions to extend the training to two full days to decrease the intensity of training, adding more information about PACIA development, and preparing a glossary for the terminology used in the guideline. The themes, attributes, indicators, and sources of evidence generally were understandable and clear. The raters identified issues in regards to gathering information, interpretation, and rating some of themes and attributes. The issues were mostly around clarity of some attributes, indicators, and questions in the source of evidence, and ease of finding relevant information. There was a satisfactory level of agreement between raters of 58% agreement between average individual scores and conciliated scores.

5.3 **Reliability and Validity of PACIA**

In this section, some aspects of reliability and validity including inter-rater reliability, and face and content validity for PACIA are discussed in three separate sections. Each section includes methods, results and discussion, and a conclusion.

Standard tools have different advantages including comparison of different health care delivery systems (Ware et al., 1986), monitoring transitions in health status overtime for different groups (Katz, Larson, Phillips, Fossel, & Liang, 1992; Liang, Fossel, & Larson, 1990), comparison of health profiles for people with different diagnosis and severity of symptoms (Alonso et al., 1992; Wu et al., 1991), and treatment programmes (Evans et al., 1985). An instrument is considered useful in clinical research if the clinicians can rely on the data and find the results clinically meaningful (McHorney, Ware, Lu, & Sherbourne, 1994). Therefore, a standard survey should meet the minimum psychometric properties, i.e. its reliability and validity should have been tested across diverse groups and it should have clear scaling assumptions (McHorney et al., 1994; Portney & Watkins, 2009).

The key factor for usefulness of an instrument is its reliability which means to what extent the instrument is free of errors (McHorney et al., 1994). For measurements made on a continuous scale, the statistical definition of “reliability” is the ratio of the true variance to the total variance, and is a number between zero (completely unreliable) and one (completely reliable) (Cronbach, 1970). There are four general types of reliability which may be assessed: test-retest reliability, inter-rater reliability, alternative forms reliability (to test equivalence of different survey forms), and internal consistency (to assess whether a set of items in an instrument measures the same trait) (Portney & Watkins, 2009). The main focus in this research is the inter-rater reliability and this is assessed using the intra-class correlation coefficient (ICC) when the measurement is made on a continuous scale. The ICC is a measure of reliability, which may allow adjustment for other factors which may affect the reliability. The ICC is also a value between zero and one (Portney & Watkins, 2009).

For measurements made on a categorical scale (either Yes/No responses or responses based on a nominal or ordinal scale), Cohen’s Kappa statistic (Cohen, 1960) can be used to measure agreement between two raters. Kappa compares an observed measure of agreement with the level of agreement expected by chance alone. Although Cohen (1960) originally formulated Kappa for the case of two raters, it has since been generalised to the case of multiple raters. This statistic essentially measures the proportion of agreement between raters beyond that expected by chance (Fleiss, 1973; Sim & Wright, 2005).

The Williams' index (Williams, 1976) is a variation on Kappa for more than two raters which can identify how each individual rater conforms to the other raters grouped together. This index separates each rater from the group in turn and constructs a measure of reliability for each individual rater compared with the rest of the group of raters. In particular, "it is used when there is no rating identified as correct or standard" (Posner, Sampson, Caplan, Ward, & Cheney, 1990, p.1107), so it is agreement with the consensus of the group which is being measured. The Williams' index is "the ratio of the proportion of agreement (across subjects) between the individual rater and the rest of the group to the average proportion of agreement between all pairs of raters in the rest of the group" (Posner et al., 1990, p.1107). Williams' approach is useful in this study as it measures agreement between an individual and a group while taking into account any disagreement within the group (Posner et al., 1990). Based on Kraemer's suggestion (Kraemer, 1980), the jackknife estimation procedure was used to obtain the standard error of the Williams' index and its confidence interval. The jackknife is a statistical method which can be used to obtain an estimate of a statistic or its variance in virtually any situation, and it is particularly useful when these quantities cannot be derived using standard methods.

Another important quality of a standardised tool is validity. This is the extent to which the instrument actually measures what it was designed to measure (the "objective") (Lynn, 1986). The ability of the scores from the instrument to make inferences about the main objectives will be limited if the instrument has low validity. Validity is necessary for deriving final conclusions from the data, and determining how the results of a test can be used. Therefore, the focus of validity is on the test results.

During assessment of validity a process of hypothesis testing is conducted to determine if scores on a test are related to the level of performance of the persons, their specific behaviours or characteristics. Generally, to define the evidence needed to support a hypothesis, it is necessary to measure different types of validity. In this study both face validity (general plausibility) , and content validity (extent to which all aspects of the objective are measured) were assessed (Portney & Watkins, 2009).

The study design for this project was methodological research which is used extensively in health care in order to establish the reliability and validity of clinical measurement tools (Portney & Watkins, 2009). Details about the data collection procedure, and selection criteria and characteristics of the raters and the services assessed in this study are described in Section 5.2.3 as a part of the evaluation process. The next sections report on the data analysis, results and discussion for inter-rater reliability, face validity and content validity of PACIA followed by a conclusion.

5.3.1 **Inter-rater reliability.**

A requirement of many clinical measurements is having a human observer or rater to interpret and record a value (Portney & Watkins, 2009). In PACIA, raters must rate the programmes through observation of the programme setting, interviewing the programme staff and service users and reviewing the programme documents. Inter-rater reliability was used to assess whether the measurements obtained by one rater are likely to be representative of the service's true score. If acceptable inter-rater reliability is achieved, the results of PACIA can be interpreted and applied with confidence (Portney & Watkins, 2009; Sim & Wright, 2005). If inter-rater reliability is good, then different raters should generally agree on PACIA scores.

Portney and Watkins (2009) mention that researchers often decide to use one rater in a study to measure internal consistency within the study and to avoid the necessity of establishing inter-rater reliability. However, it weakens the generalisability of the research outcomes. Only if the inter-rater reliability of the measurement is high, can it be assumed that other raters would have obtained similar results (Portney & Watkins, 2009). In this study to establish inter-rater reliability, five raters were used.

5.3.1.1 ***Method.***

The services were rated using PACIA and a Likert scale ranging from one (minimum score which shows the lowest quality) to five (maximum score which shows the highest quality). Reliability of these responses were calculated as though they were measured on an ordinal categorical scale (using the Williams' index), or on a continuous scale (using ICC) which is recommended by the literature for establishing reliability of fidelity instruments (Mowberay, Holter, Teague, & Bybee, 2003).

a. Responses treated as ordinal categorical

As the aim of the study was to determine the reliability of each rater in the group when compared with some group average or norm, the Williams' index was considered to be the most appropriate statistic. The 95% confidence interval to the Williams' index can be calculated using the jackknife method. If the confidence interval is completely less than 1.00, then the ratings of the individual rater are significantly different from the group. A confidence interval completely above 1.00 for Williams' index indicates high agreement of the ratings by the individual compared with other members of the group. Values above 1.00 are evidence of high reliability of the individual rater when the individual shows agreement with the group which is similar to other members of the group, the confidence interval for the Williams' index includes 1.00 (Posner et al., 1990).

5.3.1.2 ***Results and discussion-part a: Williams' index.***

Applying the Williams' index method to the raters across all of the services together showed that they had a high agreement, with the 95% confidence interval including 1.00 for each rater (Table 5.9).

Table 5.9. Raters' Agreements and Confidence Interval versus Other Raters on PACIA Scoring

Raters all together in the services VS other raters in group	Williams' index agreement in all services	Confidence interval in all services
Rater one	1.02	0.85 - 1.19
Rater two	0.98	0.79 - 1.17
Rater three	0.89	0.71 - 1.08
Rater four	0.96	0.77 - 1.15
Rater five	1.15	1.00 - 1.31
Average	1	0.82 - 1.18

The reliability of individual raters was measured using Williams' index of agreement and the 95% confidence interval was calculated using the jackknife estimate of the variance. When calculated for each service separately, the Williams' index of agreement showed that rater 4 (Williams' index = 0.79, 95% CI = 0.62 to 0.96) did not show acceptable agreement with the rest of the group in the evaluation for service three as the confidence interval did not include 1.00. Calculations of the index for all other services and other raters gave values which were consistent with good agreement between raters (Table 5.10)

Table 5.10. Raters Overall Reliability based on Williams' Index and Confidence Interval

	Williams' index and confidence interval for raters in each service				
Services	Rater one	Rater two	Rater three	Rater four	Rater five
Service one	1.11[a]	0.85	0.76	1.17	1.17
	(0.95-1.27)[b]	(0.67-1.03)	(0.51-1.17)	(0.78-1.56)	(1.03-1.3)
Service two	0.68	1.07	0.90	1.02	1.16
	(0.67-1.07)	(0.94-1.19)	(0.76-1.05)	(0.90-1.15)	(1.06-1.26)
Service three	1.11	0.99	0.99	0.79	1.15
	(1.02-1.20)	(0.90-1.08)	(0.73-1.26)	(0.62-0.96)[c]	(1.04-1.26)
Average	1.02	0.98	0.90	0.96	1.16
	(0.85-1.19)	(0.79-1.17)	(0.71-1.08)	(0.77-1.15)	(1.00-1.31)

[a] Williams' index; [b] Confidence interval; [c] Rater four did not receive acceptable agreement with the rest of the group in the evaluation for the service three as its confidence interval did not include 1.00.

b. Responses treated as continuous (ICC)

When the responses are treated as observations on a continuous scale (often done for a 5-point Likert scale), the reliability among raters can be calculated using variance estimates obtained through an analysis of variance. This reflects both degree of correspondence and agreement among raters. The ICC was used in this study to overcome the limitations of correlation as a measure of reliability, and to be able to measure reliability among more than two raters. ICC ranges from 0.00 to 1.00, with values above 0.75 indicative of good reliability, and those below 0.75 indicated of poor to moderate reliability (Portney & Watkins, 2009).

5.3.1.3 ***Results and discussion-part b: Intra-class Correlation Coefficient (ICC).***

There are different versions of ICC depending on the design and purpose of the study. For the current study, the appropriate version was to treat the raters as the only raters of interest with no intention to generalise the findings beyond the set of raters involved. The accepted labelling convention of this type of ICC is 'Model 3'. ICC was calculated through the following equations (Portney & Watkins, 2009):

ICC (3, k) = (BMS – EMS) / BMS (Equation 5.1)

- 3 = Number designated to ICC model (Fixed effect model)
- K= Means of the three services
- BMS = Between Subject Mean Square (called "between raters here")
- EMS = Error Mean Square
- The values for BMS, and EMS were taken from the Analysis of variance (ANOVA).

The following scores were achieved by using ANOVA to find ICC.

- BMS = 3.11
- RMS = 2.85
- EMS = 0.52
- ICC (3, k) = (3.11 - 0.52) / 3.11 = 0.83

The results from ICC demonstrated reasonable agreement between raters (ICC=0.83).

5.3.2 **Face validity.**

Face validity is not considered to be a true psychometric assessment technique. A procedure, statement, or instrument is defined to have face validity if stakeholders accept that it appears to be sound or relevant (Lynn, 1986). When an instrument has face validity, it tests what it is supposed to and it is a credible method for doing so (Portney & Watkins, 2009). Face validity is the first step in determining validity especially when an instrument is newly developed and there is no literature/similar instrument to compare it with (Sartori, 2009). The literature emphasises for any psychological or educational test to be practically useable, it is important to establish face validity (Nevo, 1985) and this step should not be skipped when finding instrument validity. Without face validity, the other components of validity can not be achieved and the instrument may not be acceptable to the raters or users of the results (Portney & Watkins, 2009). Robert (2000) asserted using experts in the assessment of face validity (instead of superficial examination) increases its scientific value and makes it similar to content validity. Therefore, face validity is an important property of an instrument although it should not be considered sufficient (Portney & Watkins, 2009).

5.3.2.1 ***Method.***

Since the PACIA is a detailed and complex instrument, it was not easy to assess its face validity. Careful selection of a panel of experts who could approach the task in a systematic manner maximised the quality of face validity assessment. They judged and reported back if the measure was a good assessment of the concept or if there were areas of misinterpretation. The raters were also asked to give their opinion on PACIA's ability to evaluate community integration programmes for people with ABI. However, the latter was a part of PACIA feedback which was explained in Section 5.2.4.4.

In this study, face validity was tested from different aspects including (1) Clarity of language and the comprehension of PACIA themes, attributes, indicators and questions and to consider if instructions and items appeared to make sense and were easy to understand by the raters, (2) Comprehensiveness of rating scores and whether they adequately allow the raters to report on the services characteristics, (3) Subjective opinion of the raters on whether the PACIA themes, attributes, indicators, and questions about sources of evidence were relevant and acceptable. Also, the ease of finding information to rate the attribute was assessed.

5.3.2.2 ***Results and discussion.***

Based on results of PACIA feedback, the raters confirmed that PACIA appeared to measure community integration programmes for people with ABI. PACIA items were reported to be easily understandable, comprehensive and sufficient to help the user to report on the community integration programmes.

In comparison with the face validity reported for other community integration instruments, PACIA face validity was conducted using a more systematic approach.

The Community Integration Questionnaire (CIQ) which is the most widely used and thorough evaluation tool in assessment of community integration for people with ABI (The Center for Outcome Measurement in Brain Injury, 2007) is an example of non-systematic face validity. Willer, Ottenbacher, and Coad (1994) and Willer, Rosenthal, Kreutzer, Gordon, and Rempel (1993) reported on the face validity of CIQ based on an Expert Panel's view which included individuals with ABI who originally developed CIQ. The authors suggested that the CIQ items may have face validity as indicators of integration. Although the CIQ assesses the frequency with which activities are performed and the assistance or supervision required to perform an activity to achieve community integration (Dijkers, 1997), it does not measure community integration programmes for ABI.

5.3.3 **Content validity.**

Content validity shows how adequately a concept is sampled by an instrument (Portney & Watkins, 2009). If the instrument covers all parts of the universe of content and reflects the relative importance of each part, it is said to have content validity. This type of validity is an especially important characteristic of the instrument that evaluates a range of information by selected test items or questions (Portney & Watkins, 2009).

5.3.3.1 ***Method.***

Goldsmith (1993) suggested that determining content validity could be achieved through asking the participants (experts in issues related to brain injury) if all the behaviours' characteristics or information based on the theoretical domain are included in the instrument.

Two different processes were used to determine content validity. One was essentially a subjective process which was specific to the content universe as it is defined by the experts. Using this method, the participants, who were considered as representative of stakeholders and therefore experts in the area, were asked to review the instrument and determine if the attributes satisfy the content domain. This process has been completed through several revisions of the instrument. As it is presented in the PACIA development process (Chapter 4), when all agreed that the content domain had been covered adequately, content validity was established (Portney & Watkins, 2009).

The second process used for measuring content validity was essentially measuring agreement among raters using statistical methods (Lawshe, 1975). To find statistical content validity for PACIA, a survey and an introductory letter were prepared. The introductory letter included the aim of the survey and instructions on how to complete it. The survey included PACIA attributes to be rated by the participants (Appendix X). A score of zero to two was used with:

- 0 = Not necessary to evaluate community integration programmes;
- 1= Useful, but not essential to evaluate community integration programmes; and
- 2= Essential to evaluate community integration programmes.

The survey and the introductory letter were sent to the 37 participants in the PACIA development process including the researchers, practitioners, policy makers, people with ABI, and their family members. They were asked to score the attributes according to how essential each attribute was to evaluate community integration programmes for people with ABI (Lawshe, 1975).

If more than half the participants indicated that an attribute was essential, that attribute had achieved at least some content validity. A greater level of content validity shows that a larger number of participants agreed that a particular attribute is essential (Lawshe, 1975). Using these assumptions, Lawshe (1975) developed a formula to calculate the content validity ratio:

$$\mathbf{CVR = (n_e - N/2) / (N/2)} \qquad \text{(Equation 5.2)}$$

- CVR= content validity ratio
- n_e= number of participants indicating “essential”
- N= total number of participants

The CVR is a value ranging from - 1.00 to +1.00; positive values indicate that at least half the participants rated the attributes as essential. The mean CVR across attributes is an indicator of overall test content validity.

In order to ensure that the values of CVR are not obtained by chance, they should be equal to, or greater than the values determined in Table 5.11. Lawshe (1975) defined CVR results as below.

- CVR is negative if fewer than half say an attribute is important.
- CVR is zero if half say an attribute is important.
- CVR is positive if more than half say an attribute is important.
- CVR is one if all participants say an attribute is important.

Table 5.11. Minimum Value of the Content Validity Ratio (CVR) per Number of Panelists (Lawshe, 1975)

Number of panelists	Minimum value of the CVR
5	0.99
7	0.99
9	0.78
11	0.59
13	0.54
15	0.49
25	0.37
30	0.33
35	0.31
40	0.29

5.3.3.2 ***Results and discussion.***

The method to develop PACIA was based on the literature review and the view of the Expert Panel which were explained in the previous chapter. All participants in the PACIA development, who were experts in the areas of brain injury and community integration, confirmed that PACIA covered all elements that reflect the variable being studied and the researcher tested the results against the literature. Therefore, the content validity of the tool was achieved.

Statistical results of the content validity using the Lawshe (1975) method showed that all of the attributes in PACIA received acceptable validity. The content validity ratio range was from 0.46 to 1.00. Although attributes 3.5 and 7.3 obtained a

CVR value less than 0.5 (0.46) (Table 5.12), their scores were acceptable because they exceeded the minimum value (about 0.31) of the CVR (Table 5.11). Moreover, considering Lawshe (1975) CVR characteristics definition, all of the attributes in PACIA received positive CVR because more than half of participants confirmed that the attributes were essential to evaluate community integration programmes.Therefore, PACIA content validity for all of the attributes was confirmed (Table 5.12).

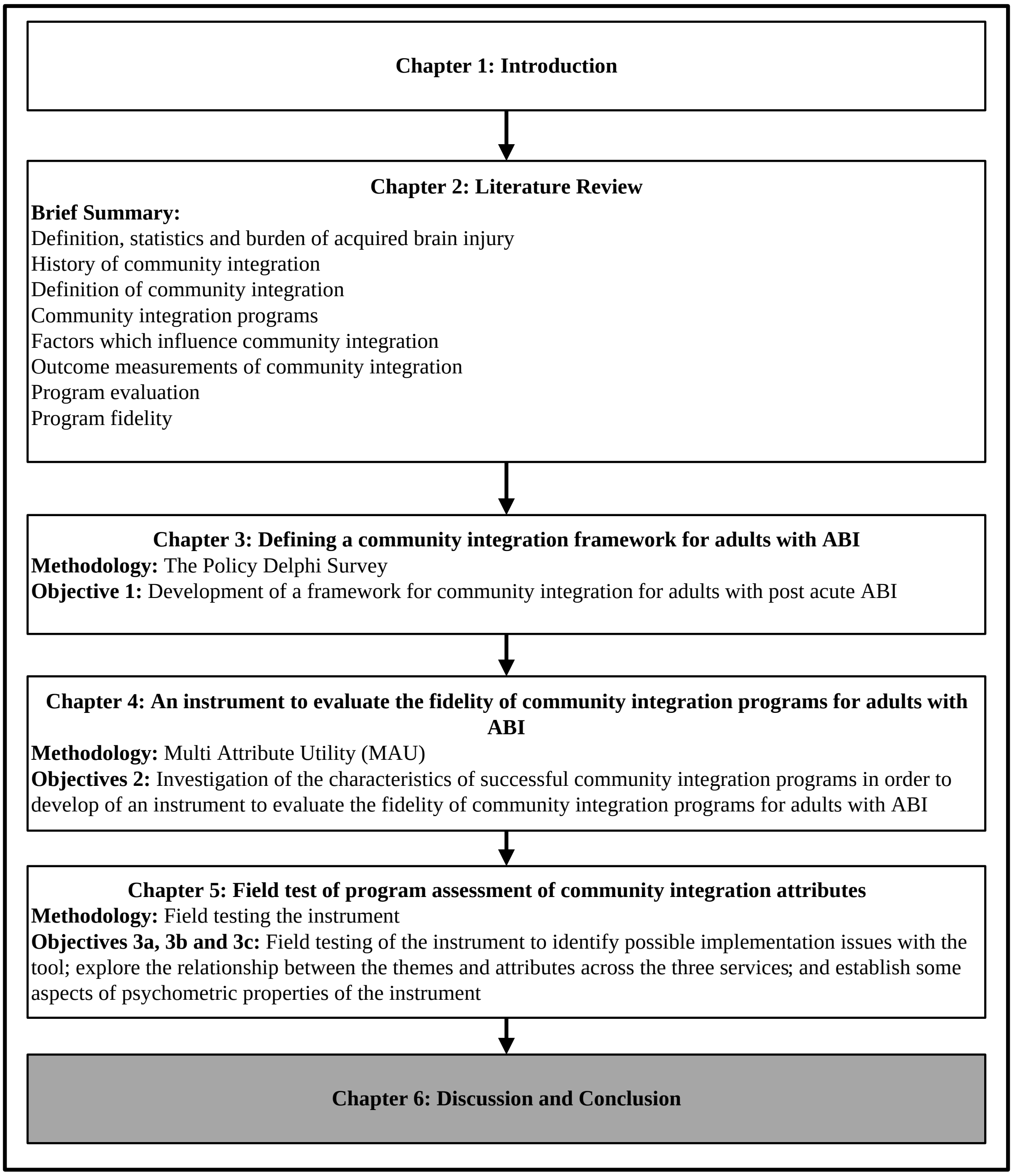
Table 5.12. PACIA Statistical Validity Based on Content Validity Ratio (CVR)

PACIA attributes	CVR	PACIA attributes	CVR
Attribute 1.1	0.89	Attribute 3.5	0.46
Attribute 1.2	1	Attribute 4.1	0.89
Attribute 1.3	0.89	Attribute 5.1	0.78
Attribute 1.4	0.89	Attribute 5.2	0.57
Attribute 2.1	0.84	Attribute 6.1	0.57
Attribute 2.2	0.84	Attribute 6.2	0.84
Attribute 2.3	0.84	Attribute 6.3	0.62
Attribute 3.1	1	Attribute 7.1	0.89
Attribute 3.2	0.62	Attribute 7.2	0.67
Attribute 3.3	0.78	Attribute 7.3	0.46
Attribute 3.4	0.51		

5.3.3.3 ***Conclusion.***

In conclusion, considering Williams’ index, its confidence interval and intra-class correlation coefficient (ICC = 0.83), all raters in the evaluation of the three services showed high agreement. However, examination of the raters in each service separately showed that the raters had acceptable agreement in each service except for service three, in which one of the raters (Rater 4), showed less agreement with the rest of the raters. This study also established both the face and content validity based on the information collected from the experts and raters during PACIA development and evaluation process, and when PACIA items were compared with the existing literature. PACIA is a valid and reliable instrument to be used in evaluation of community integration programmes for adults with ABI.

CHAPTER 6: Discussion and Conclusion



Chapter 1: Introduction

Chapter 2: Literature Review

Brief Summary:

Definition, statistics and burden of acquired brain injury
History of community integration
Definition of community integration
Community integration programs
Factors which influence community integration
Outcome measurements of community integration
Program evaluation
Program fidelity

Chapter 3: Defining a community integration framework for adults with ABI

Methodology: The Policy Delphi Survey

Objective 1: Development of a framework for community integration for adults with post acute ABI

Chapter 4: An instrument to evaluate the fidelity of community integration programs for adults with ABI

Methodology: Multi Attribute Utility (MAU)

Objectives 2: Investigation of the characteristics of successful community integration programs in order to develop of an instrument to evaluate the fidelity of community integration programs for adults with ABI

Chapter 5: Field test of program assessment of community integration attributes

Methodology: Field testing the instrument

Objectives 3a, 3b and 3c: Field testing of the instrument to identify possible implementation issues with the tool; explore the relationship between the themes and attributes across the three services; and establish some aspects of psychometric properties of the instrument

Chapter 6: Discussion and Conclusion

6.1 **Summary of the study**

This study was completed in three phases. The first phase of the study obtained an agreed framework to define the meaning of community integration for adults with acquired brain injury (ABI).

Five groups of stakeholders were approached to participate in the study. The Participant Groups included six national or local researchers published in the area of community integration for ABI; seven key staff with at least five years experience working within the area; six policy experts recommended by the Western Australia Disability Services Commission; eight adults with post-acute ABI (19 years of age or older) selected from people who had received services from an ABI programme; and ten people who lived with individuals with post-acute ABI (partner, carer, or family member). Thirty seven people out of 71 potential participants responded to the request and completed a consent form.

A pilot study with a small group of the participants was conducted to ensure the appropriateness of the documentation for the first phase (information sheet and consent form). They were also asked to identify whether the term social integration or social inclusion was more appropriate to use as the key terminology in the study. Consequently, two versions of the information sheet and consent form, one in more formal language for the professionals, and the other in plain language for people with ABI and their family members, were prepared for the Participant Groups. The term ‘community integration’ was chosen to use in all phases of this study.

The Policy Delphi survey method (Hasson et al., 2000; Turoff, 2002; 1995) was applied in three steps, each of which began with a survey or a semi-structured interview. The data (identified aspects, components, and characteristics of successful community integration by the Participant Groups) were analysed and the results (community integration descriptors) were used in the next step. At the end of the first phase of the study, a framework to describe community integration for adults with ABI was developed. The community integration framework (CIF) included seven community integration themes and descriptors. The themes consisted of Relationships, Acceptance, Community access, Occupation, Being at home, Picking up life again, and Heightened risks and vulnerability, which were confirmed with the current literature.

In the second phase, the CIF which resulted from the first phase was used to identify the characteristics of programmes that contributed to the achievement of community integration for adults with ABI. A multi attribute utility (MAU) technique was applied (Camasso & Dick, 1993; Huber, 1974; Lewis et al., 2003). This part of the study was completed in four stages. In each stage, surveys or semi-structured interviews were used to gather the participants' opinions on the characteristics of successful community integration programmes. Analysis of the results of each stage informed the next stage.

In the first stage of the second phase the data (descriptors of community integration programmes) were categorised into seven clusters and 26 sub-clusters. In the second stage, the Participant Groups reviewed and examined the importance of programme characteristics using a Likert Scale. This resulted in determining the priority weights of the clusters and sub-clusters. In the third stage, which was the final development process for the instrument, the Expert Panel, a sub-group of the Participant Groups including policy makers, researchers, practitioners or member of family members of people with ABI (two of each group), reviewed the results during a day working group. The Expert Panel modified the themes, their descriptors and attributes, and identified indicators for each attribute. The themes, their descriptors and attributes were compared with ABI outcome measures currently available in the literature.

In the fourth stage, the themes and attributes were sent to the Participant Groups and the Expert panel to finally confirm and determine the relative importance of each theme and attribute. This was the final stage in the development of the instrument, named as Programme Assessment of Community Integration Attributes (PACIA), which included seven themes and 21 attributes. The themes consisted of Person centred approaches and planning, Relationships, Working together, Development of skills, Community based practices, Support for service users, and Service setting and atmosphere. Each attribute was defined with indicators and sources of evidence were identified to enable attributes to be rated.

The third phase of the study was the field study of PACIA. The field study aimed to examine the effectiveness of the evaluation process, and investigate the relationship between the themes and attributes across the three programmes. The process began with the selection of the evaluation team, and the services they were to evaluate. Three services were suggested by the Disability Services Commission, Western Australia from the post-acute services available for adults with ABI. The services’ managers were informed about the evaluation aim and process during a meeting and were supplied with a comprehensive information sheet which included detailed information about the project. All services agreed to participate in the evaluations. The evaluation team consisted of five raters: a team leader with considerable experience in disability and the evaluation process, two raters with experience in disability services and the evaluation process, and two third year occupational therapy students with some experience in disability. The team attended a one day training session on the use of PACIA for evaluation. Each service was evaluated by each rater individually (individual score) using PACIA through observation, reading relevant documents, and interviews with the staff, service users, and families. Conciliation meetings were used to agree on attribute rating scores for each service (conciliation score). The three services achieved a range of scores on the PACIA themes and attributes based on their different qualities. The scores obtained by the services were 49%, 59%, and 62% for the service one, two, and three respectively (range of possible scores were 20 to 100%). This phase also aimed to explore the ease of use and issues in the implementation of the instrument, and examined some aspects of PACIA validity and reliability. The implementation issues were mostly around clarity of attributes, indicators, and questions in the sources of evidence, and ease of finding the relevant information. Feedback from the raters on the evaluation process was generally positive. The training provided a good overview of the evaluation process and useful information about how the tool was developed. There was a satisfactory level of agreement between raters of 58% agreement between average individual scores and conciliated scores. PACIA psychometric properties were also established. Inter-rater reliability, face validity, and content validity of PACIA were all tested and indicated that PACIA is a valid and reliable instrument to evaluate community integration programmes.

6.2 **Discussion**

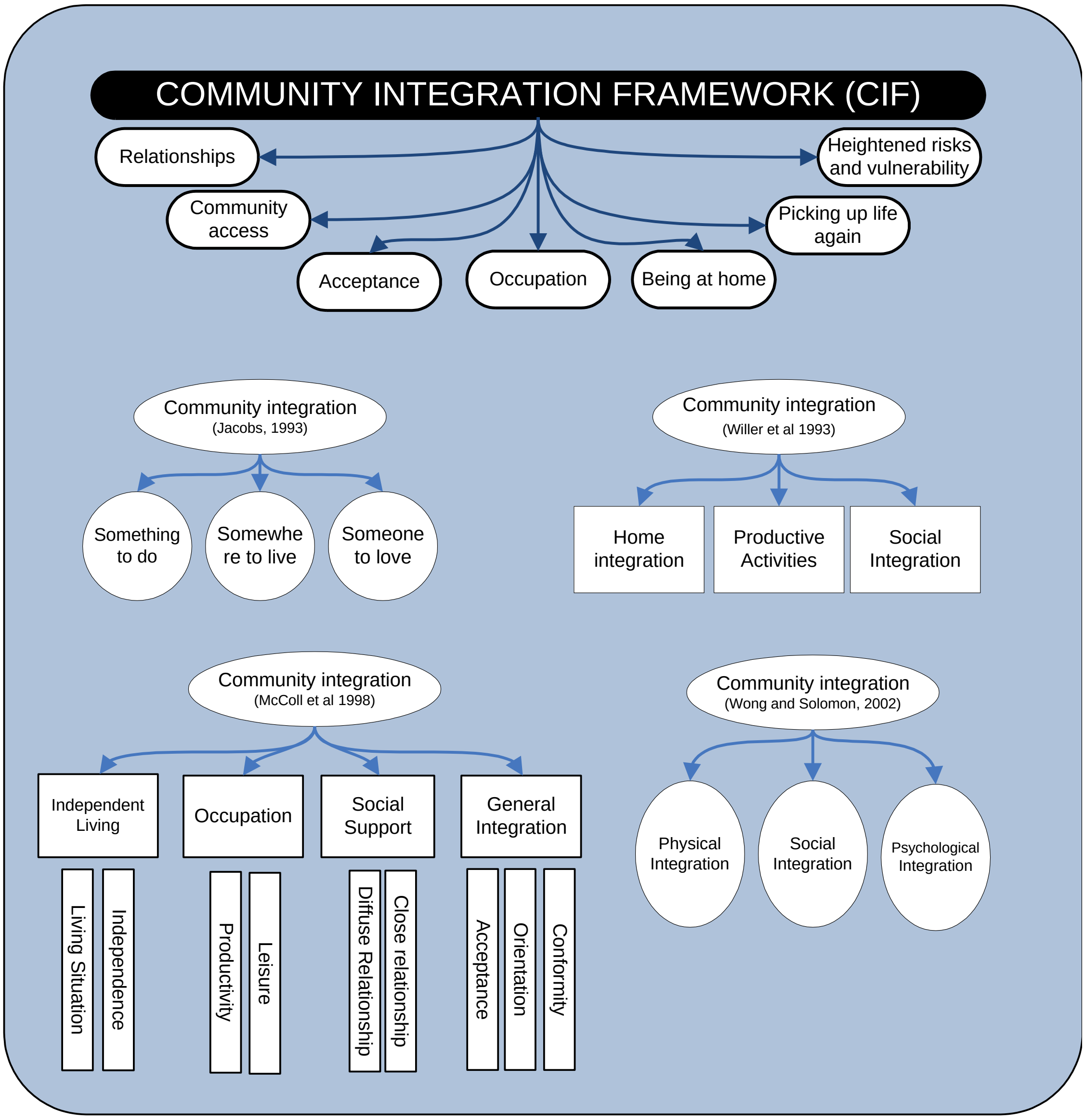
This PhD project had three objectives: the development of an agreed framework to define the meaning of community integration for adults with ABI, the designing of a fidelity instrument to measure community integration programmes, and to explore the reliability and validity of the instrument. All these aims were successfully addressed.

6.2.1 **Community integration framework (CIF).**

Research over the past few decades has focused on the definition of community integration, however, there is a lack of agreement on the definition among researchers (Gordon, Zafonte et al., 2006; Sander, Clark, & Pappadis, 2010). The great variety of definitions has also led to confusion when designing any measurement tools or programmes related to community integration for people with ABI. It was important to have a clear notion of what this study meant by community integration as this definition was used to develop an instrument to evaluate to what extent community integration programmes follow the community integration framework. Therefore, during the first phase of this study a community integration framework (CIF) was defined which, like most of current definitions for community integration (McColl et al., 1998), was multidimensional. As discussed in Sections 3.4.2 and 3.5.2, the seven themes accord well with what has been found in the current literature for community integration. However, none of the currently published community integration frameworks include all themes of the CIF. Diagram 6.1 illustrates the CIF themes and four other frameworks used in the literature.

As can be seen in Figure 6.1, three out of seven themes of the CIF (relationships, acceptance and occupation) are similar to that of a client–centered framework introduced by McColl et al. (1998). However, there are some differences in the definitions of these themes. Firstly, McColl et al. (1998) considered acceptance as a sub-item of ‘general integration’ rather than a main item. Secondly, the CIF exclusively emphasised the importance of ‘keeping the existing support and forming new relationships’, while the definition by McColl et al. (1998) does not refer to keeping or making new relationships. Finally, the McColl et al. (1998) definition included leisure and productivity as important components of occupation. However, the CIF also adds that occupation means ‘being able to choose how to spend your time’.

Figure 6.1.Comparison of Community Integration Framework (CIF) with four other community integration framework



This variation reflected the current study participants identification of the ‘ability to choose’ as one of the essential factors in community integration. The other themes of the CIF (community access, being at home, picking up life and heightened risk and vulnerability) were not directly referred to by McColl et al. (1998). ‘Conformity’, ‘orientation’, ‘independence’ and ‘living situation’ have some overlaps with CIF themes.

A second definition used by researchers in the area of community integration is defined as “effective role performance in community settings” (Willer et al., 1993, p.76). They outlined three areas of integration. The first area ‘home integration’ consists of the active participation of the individual in home operations which is not emphasised in the CIF. The CIF described ‘being at home’ as about being free to have personal arrangements in the house and the possibility of ‘choosing’ what you like to do. The other two areas highlighted by Willer et al. (1993) are ‘social integration’ and ‘productive activities’ which include relationships, a variety of outside home activities and employment. These areas of their definition are covered by the themes of ‘occupation’ and ‘relationships’ on the CIF.

A third framework for community integration is a colloquial, yet effective definition that looks at community integration as something to do (similar to ‘occupation’ in the CIF), somewhere to live (similar to ‘being at home’ in the CIF), and someone to love (having ‘relationships’ in the CIF) (Jacobs (1993) as cited in McColl et al., 1998).

The fourth framework for community integration was conceptualized by Wong and Solomon (2002). It has three dimensions which are comparable with some themes in the CIF. The first dimension is ‘physical integration’ which includes participation in activities and using services in the community, and is comparable with ‘occupation’ and ‘community access’ in the CIF. The second dimension is ‘social integration’, defined as engagement in social interactions and networking. This concept is described under the theme ‘relationships’ in the CIF. However, as with the framework of McColl et al. (1998), the frameworks presented by Wong and Solomon (2002) do not consider the importance of keeping previous relationships or making new relationships. ‘Psychological integration’ as the third dimension of this framework overlaps with themes ‘acceptance’ and ‘being at home’ of the CIF as they consist of the perception of being a member of the community, having an emotional connection with neighbors, and getting support from neighborhoods.

Two themes of the CIF ‘picking up life again’ and ‘heightened risk and vulnerability’ were not directly referred to by any of the commonly used definitions of community integration. However, they are mentioned in the literature as important factors to consider in community integration (Bond et al., 2004; Cummins & Lau, 2003; Karlovits & McColl, 1999; Nelson et al., 2001; Willer et al., 1994; Willer et al., 1993). See more details in Sections 3.4.2 and 3.5.2.

These dissimilarities may be attributed to the different methodologies of the studies. The CIF is based on the views of different groups of stakeholders; McColl et al. (1998) based their definition on the results of interviews with 18 people with moderate to severe brain injury; Wong and Solomon (2002) concluded their definition on a literature review for community integration of people with psychiatric disabilities; and Willer et al. (1993) had focus groups with 14 rehabilitation professionals, researchers and consumers. This discrepancy between the views of different groups of stakeholders is also highlighted by Sander et al. (2010). In their review of the literature, they concluded that while people with ABI consider ‘relationships and socializing’ as important as ‘work’, the emphasis of most rehabilitation research and clinical effort (the researchers and professionals’ view) is on increasing employment for this group of people. Therefore, it appears that the CIF is a more comprehensive framework in comparison with the other available community integration frameworks.

6.2.2 Programme Assessment of Community Integration Attributes (PACIA)

A major outcome of this PhD project was PACIA which was designed based on the CIF. Research in programme evaluation has focused on the description and measurement of programme characteristics and their relationships to outcomes. To our knowledge, there is no instrument to assess whether community integration programmes follow their theory and principles. Fidelity measurement is necessary for improving significance for evaluation, treatment effectiveness research, and enhancing administration of services, improving validity of programmes (Dane & Schneider, 1998; Salyers et al., 2003) and improving predictability of outcomes when using well-established models (Paulson et al., 2002). Although a recent review showed there are a number of measures used to evaluate outcomes of community integration programmes (Gordon, Zafonte et al., 2006), none of them is comparable with PACIA which is a fidelity test to evaluate community integration programmes.

The purpose of fidelity measures is to compare an intervention/programme with the intended model on which it is based (Drake et al., 2001). Fidelity ensures both internal validity (Hohmann & Shear, 2002) and external validity of an intervention (Mowbray et al., 2003). There is some evidence that the failed implementation of a theory is the most common reason for reduced programme effectiveness (Mills & Ragan, 2000). Mowbray, Holter, Teague, and Bybee (2003) suggested three methods to develop a fidelity instrument: (1) using an efficacy proven programme model; (2) gathering information from experts via surveys and/or literature review; or (3) using qualitative research to gather information from service users and advocates regarding the characteristics of the service that works best for them. While the first model was used to develop most of the mental health fidelity tests (Mowbray et al., 2003), it was not feasible for the current project, as there was insufficient evidence of the efficacy of existing community integration programmes (Geurtsen et al., 2010).

Fidelity instruments usually test one of the programme’s operating constructs: some test aspects of the programme structure, for example, staff qualifications, case load size, and frequency of contacts (Orwin, 2000). Others are aimed to evaluate process fidelity of programmes for example relationships between staff and service users, person centred interventions, and the service setting atmosphere (Bond et al., 1997). PACIA can be included in the latter category. This is both an advantage and disadvantage for PACIA. Process fidelity instruments are more significant in terms of programme effectiveness (Teague, Bond, & Drake, 1998). However, as PACIA is a process fidelity instrument, the data collection for rating programmes using PACIA is more subjective and can be much more expensive and time consuming than confining testing to structural evaluation (Mowbray et al., 2003). Completion of PACIA needs approximately one and a half to two days plus ratings for each service. This is very time consuming because the data for rating the programmes by PACIA should be collected through observation, interview and reviewing documents based on the rater’s judgement rather than by using objective measures. In addition, as the sources of evidence for using PACIA are relatively variable, it is important to consider the possible complication of interpretation of findings and difficulties in conciliations with more than one rater.

The literature highlights the lack of detail about the source and methodology for choosing domains and sub-domains of most fidelity criteria (Mowbray et al., 2003). This research study applied a Multi Attribute Utility (MAU) approach, as one of the suggested methodologies for deciding on components of a complex concept (Camasso & Dick, 1993), to determine the characteristics of a successful community integration programme. The MAU method also helped to overcome the information overload that often arises in complex situations (Huber, 1974).

The other strength of the methodology of the development process of PACIA was using different sources for the information. As suggested by the literature (Bond, Evans, Salyers, Williams, & Kim, 2000; Patton, 2002), in this study the view of a wide range of experts were sought. The participants in this study included service consumers and their family members/ carers, health professionals, policy makers, and researchers. However, Mowbray, Holter, Teague, and Bybee (2003) raised several issues in using experts' opinions when designing a fidelity test. The first issue is that the opinions of experts may change over time. While there is evidence that using the opinion of experts is the lowest level of evidence in health issues, it is the only alternative when there are no other sources available (Chambless & Ollendick, 2001). Secondly, there is a high possibility that experts will rate the majority of components as 'very important' (Holter, Mowbray, Bellamy, MacFarlane, & Dukarski, 2004). In order to avoid this possible issue, the participants in the present study were asked to determine the relative importance of the themes and attributes. Finally, the number of participants required for a study might be an issue. While the available literature reports on using a wide range from two (Paulson et al., 2002) to over 20 participants (Holter et al., 2004), this study included 37 participants to accommodate for attrition. However, except for two occasions during the study, there was no attrition as all the participants were highly motivated to take part in the study. During the first stage of PACIA development when participants were asked to identify community integration programmes characteristics, nine of the 37 participants (24%) did not respond to the survey or did not attend the interview. In addition, during stage two (reviewing programme characteristics and examining their importance), one of the participants (3%) was not available to respond to the survey. The reason was local unavailability or poor health of these people on those special occasions. However, none of the participants withdrew and they all wished to participate in the other stages of the study.

PACIA is an instrument with seven themes and 21 attributes. The collecting of information for rating services by PACIA necessitates observation of the service, review of documentation, and interviews with staff, service consumers, and their families/ carers. These are the most commonly used methods for completing fidelity instruments (Mowbray et al., 2003). This method is more reliable in comparison with using a checklist/survey used by some programme evaluation tools (Macias, Propst, Rodican, & Boyd, 2001; Mills & Ragan, 2000). The selection of an appropriate person to use the fidelity test to rate the services is also important. For most fidelity measures, the checklist/survey is completed by the service staff. However, the staff's responses might be biased as they might be affected by the findings of the programme evaluation. The staff bias also may be because of conflicts of interest (Mowbray et al., 2003). Lebow (1983) and Nguyen, Attkisson, and Stegner (1983) suggested that utilizing the views of the volunteer programme users is another potential area of bias, as the volunteers might be highly positive or highly negative depending on the extent to which the programme is providing what they expect. There is also an argument that using researchers to rate a programme may alter the validity of results as they cannot be blind or unbiased to the programme (Mowbray et al., 2003). During the field test of PACIA, to minimise the risk of bias, the raters included a team leader with considerable experience in disability and the evaluation process, two raters with experience in disability services and in the evaluation process, and two third year occupational therapy students with some experience in disability, but none in programme evaluation. Another strategy to reduce bias was to choose the raters who were not employed by the services. Although expensive and time consuming, employing and training a rater with background knowledge of community integration increases the reliability of the results (Mowbray et al., 2003). These raters were all trained in a one day workshop. Published articles rarely reported on how the raters of the fidelity tests were chosen and whether they were trained or not. Three studies by Vincent, Paine-Andrews, Fisher, Devereaux, Dolan, Harris, and Reininger (2000), Malysiak, Duchnowski, Black, and Greeson (1996), and Teague, Bond, and Drake (1998), which provided thorough information about the fidelity test, did not report any details of the rater/s used in the studies. Therefore, it was not possible to compare the results of this study with other published research based on the characteristics of the raters.

Unlike other scales for ABI (Johnston, Shawaryn, Malec, Kreutzer, & Hammond, 2006), only one of the themes in PACIA appear to overlap. The raters recognised overlap between attribute 3.3 ‘The service accesses, and works collaboratively with community services’ and attribute 5.1 ‘The service has well-developed linkages and networks with community resources’. However, they have suggested some minor changes in the wordings of these attributes to overcome this overlap (See section 5.2.4.3).

6.2.3 Field test of PACIA

Because of the relatively small sample size (three services), it was not statistically possible to compare the scores obtained by the services. The scores that each service obtained in each theme was expressed as a percentage of 20 to 100%. Although all the services were introduced and established as community integration programmes, none of the evaluated services obtained the highest score possible in PACIA. The highest score gained by the services was 62% of total PACIA score (service one received 49%, service two 59%, and service three 62% of the possible PACIA score). This suggested that service three was following the theory of community integration more closely than the other two services. Interestingly, the result of the study on the comparison of the three services was reflected in what one can interpret from comparison of their characteristics. Although all of the three services were aiming for better community integration for their service consumers, their characteristics (stated service objectives, service location, service users, physical characteristics and facilities provided by the service and service processes) varied considerably (See Section 5.2.4.1). For instance, staff in services one and two were considering the service users’ interests and desires in their planning. These services provided a permanent service for a smaller number of service users (eight people in service one and six people in service two) than service three which provided a temporary service (1.5 years) for 27 service users. Also, the staff rotation in service three limited personal knowledge about the service users. Accordingly, services one and two received a final score of 0.256 in attribute 1.1 ‘The service knows its service users very well’ which was higher than the score for service three

(0.192). Although the first and the second services received similar scores on attribute 1.1, PACIA showed that their characteristics were different in the other two attributes in theme one. These differences were because both services two and three provided enough evidence to obtain 0.165 on attributes 1.2 ‘The service closely follows the needs, aspirations, and preferences of the service user’ and 0.156 on attribute 1.3 ‘The service focuses on service users’ strengths and abilities rather than their disabilities’. However, service one received a lower score (0.110 and 0.104) on the themes respectively as plans for the service users were determined by managers who were not in direct contact with the service users and were not familiar with the service users needs and characteristics.

The ease of the use of PACIA was also tested in this study. The raters used in this research indicated the items (themes, attributes, indicators and sources of evidence) were easily understood and the time allocated for the data collection was sufficient. They all mentioned that generally finding sources of evidence to rate PACIA attributes was easy.

PACIA psychometric properties which are of special importance for fidelity instruments (Bond et al., 2000) were also tested in this study. The raters were asked to test PACIA face validity from different aspects: clarity of language and comprehension; comprehensiveness of rating scores; and relevance and acceptability of items. The raters reported PACIA items to be easily understandable, comprehensive and sufficient to help the user report on the community integration programmes. This method was more systematic in comparison with the face validity reported for other community integration outcome instruments. For example, face validity for the Community Integration Questionnaire (CIQ) (Willer et al., 1993), the most commonly used community integration outcome measure tool for ABI, is based on views of the Expert Panel who were involved in the development process. The opinion of other experts was not sought.

Content validity, which is an important characteristic of a fidelity test (Mowbray et al., 2003), was tested in this project through two different methods. Firstly, based on the PACIA development process including the literature review and the view of experts (Goldsmith, 1993), it appears that the instrument covers all parts of the concept of community integration and reflects the relative importance of each part. According to results of PACIA feedback, the raters confirmed that PACIA appeared to measure community integration programmes for people with ABI. Secondly, to achieve a stronger content validity (Lawshe, 1975) for PACIA, the Participant Groups agreements on PACIA attributes were calculated statistically using data collected through a survey. The survey included PACIA attributes to be rated by the participants. A score of zero to two was used with 0 = Not necessary to evaluate community integration programmes; 1= Useful, but not essential to evaluate community integration programmes; and 2= Essential to evaluate community integration programmes. While the minimum content validity ratio (CVR) required for good content validity is about 0.31 (Lawshe, 1975), the CVR for the PACIA attributes ranged between 0.46 and 1.00. The statistical results of the content validity using the Lawshe (1975) method indicated that all of the attributes in PACIA received acceptable validity. This level of content validity is acceptable to the standards proposed for programme evaluation (Johnston, Keith, & Hinderer, 1992).

Inter-rater reliability of PACIA was explored using two different statistical analyses. PACIA reliability was measured on an ordinal categorical scale (using the Williams' index) (Posner et al., 1990), and on a continuous scale, using Intra-class Correlation Coefficient (ICC) (Portney & Watkins, 2009). Applying the Williams' index method to the raters across all of the services together showed that they had a high agreement, with the 95% confidence interval including 1.00 (comparison of the scores given by each rater to all services versus other raters). The results from ICC demonstrated reasonable agreement between raters (ICC=0.83). This result suggests that PACIA can be used by one or more raters and a conciliation meeting is not essential. However, having multiple raters adds to the depth of consideration of the rating issues and increases the breadth of suggestions that could be provided to services that participated in formal evaluations.

6.3 **Practical Applications of PACIA**

PACIA is an evidence-based community integration programme assessment tool that may be of interest to practitioners, policy makers, and managers of services and consumers in many different contexts and with a range of purposes.

There is general agreement that programmes with higher fidelity scores have better outcomes (Blakely et al., 1987; Drake et al., 2001). Results of PACIA may help policy makers and managers obtain more in-depth information about community integration programmes on which to base the adoption or discontinuance of programmes and redistributing resources toward more effective outcomes. Field testing of PACIA suggested that PACIA is applicable across different types of post-acute community integration programmes, for example permanent accommodation services and rehabilitation centres. The feedback from the raters suggested that they found PACIA useful for identifying areas in which the community integration programmes need to focus their efforts.

Service providers and practitioners request guidance in the form of programme standards to achieve community integration. However, there is no readily available quality improvement tool. PACIA can be used to identify the areas in which community integration programmes need to focus improvement efforts and to track their progress over time. In this case, areas and specific improvement strategies can be identified by providing PACIA themes and attribute scores. Arranging meetings with the staff of the particular service to discuss improvement strategies could assist in identifying areas based on PACIA themes for improvement of community integration programmes. The components of each theme (attribute definition, indicators, and the sources of evidence) illustrate optimal practice, giving service providers guidance to what comprises aspects of community integration services that are likely to successfully return people with ABI to the community.

In principle, PACIA provides a basis for explaining how a community integration programme operates in concrete terms that can be understood by people with ABI and their families. Although this function has not yet been field-tested, it is likely that simplifying some of the terminology will make it more user-friendly for the general public.

Measurement of programme outcomes does not provide the information necessary to identify what it is about the programme that works and what doesn’t. Measurement of programme outcomes does not provide the information necessary to identify the mechanisms underlying the programme. If the characteristics of programmes are measured with some degree of accuracy and validity, exploring the relationship between programme fidelity and measurement of outcomes may help to identify the aspects of interventions that are more or less effective in promoting certain outcomes.

PACIA score can be used in preparing level I evidence. Having the scores of PACIA for the interventions being tested in a meta-analysis can assist in producing meaningful comparisons of the interventions (Bond et al., 2000). When running randomised controlled trials, applying PACIA can assist to ensure that the control group does not receive any of the effective components of a community integration programme. The other use of PACIA for randomised controlled trials is to provide evidence that the same programme is being delivered in multiple sites.

Further research on a relatively large sample of community integration programmes would provide data to conduct a factor analysis of PACIA items. To further assist service providers in translating the PACIA scores in practical terms for focusing their improvement efforts, there is need to develop and formally test a feedback form to be given to the service managers as a guide for the areas that their service needs improvement. PACIA can also be used in research comparing outcomes of community integration programmes to find if programmes with higher scores in PACIA have better outcomes.

6.4 **Limitations and Further Research**

As with all studies, limitations exist and must be acknowledged when interpreting the findings. Except for the researchers in the Participant Groups, all participants were residing in Western Australia. This might have limited the diversity of views. Also, no data was collected in regards to the clinical characteristic (such as severity of physical, cognitive and psychological impairment and time since incidence of the brain injury), ethnic background, original country and mother language of the participants with ABI. It is possible that collecting views of other people with ABI with different cultural backgrounds/demographics/clinical characteristics be different from those of the participants in this study. In addition, research on a sample of service users with other types of disability would provide information on whether the community integration framework (CIF) is appropriate for people with different needs.

The number of services studied in this project was relatively small (only three) and the staff were highly motivated, which may not be representative of the average services for people with ABI. This limits the external validity of the findings. Another study on a larger number of services using PACIA would provide better opportunity of field testing this instrument.

A part of this study was designed to evaluate inter-rater reliability and face and content validity. However, other aspects of validity and reliability were not addressed. As PACIA is a fidelity test, it would be valuable to establish its predictive and descriminant validity. Collecting the PACIA scores and also the scores of the service users on a community integration outcome measurement tool (such as Community Integration Questionnaire) in a large sample of community integration services can provide data to determine if PACIA scores for a service can predict the outcome the service (predictive validity).

There was an intrinsic problem given that the selected services had a wide range of differences. They were not only different in their method of service delivery but also they were different in other characteristics such as providing service for a different number of service users. This difference was a strong possible reason for why services with smaller number of service users (less than 10) obtained higher scores on Theme one ‘Person-centred approaches and planning’ in comparison with a service for more than 20 people. Study on a large sample of diverse community integration services with different models of service delivery (community based, client-based rehabilitation and independent living) will provide information on the descriminant validity of PACIA. However, it would be important to consider specific inclusion criteria for the services. A study to establish test-test validity of PACIA will also ensure validity of the results for a pre-test post-test study when using PACIA to improve quality of services.

It is important to determine if the programme is well-designed based on the programme theory when studying outcomes of a programme. Using PACIA may provide information on the extent of which any community integration programme is based on community integration framework. However, further research is needed to determine a cut-off score for PACIA to distinguish theory-based community integration programmes from other programmes.

Using PACIA in the current format requires observation, reviewing the documentations of the service and interviews following with spending considerable amount of time for rating the service based on the collected data. This is very time consuming and expensive. A behaviourally-anchored version of PACIA needs to be designed to facilitate the rating and reduce the amount of time needed to rate a service.

6.5 **Conclusion**

Integration or re-integration into the community is a vital social objective for people with ABI for whom intensive medical rehabilitation may be followed by an uncertain pathway of longer-term rehabilitation. This study developed an evidence-based community integration framework (CIF) to describe community integration for adults with ABI. The framework may be useful as a basis for making policy decisions to enhance community inclusion. The research method surveyed a wide group of key stakeholders whose views formed the basis of the framework. The CIF provides an agreed description of a theory or model upon which the characteristics of programmes aimed to facilitate community integration were identified and the fidelity of those programmes were assessed. The other result of this study was the development of a fidelity instrument named as Programme Assessment of Community Integration Attributes (PACIA). This evidence-based instrument appears to be valid and reliable to test the fidelity of community integration programmes; however further research is needed to establish other aspects of psychometric properties of PACIA i.e. test re-test reliability, criterion validity and discriminant validity. Community integration programmes can be evaluated more comprehensively by PACIA than has been the position in the past. Such an evaluation instrument may help existing programmes re-focus to provide more efficient services for people with ABI.

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Appendix A

information sheets and consent forms

Curtin
University of Technology

Participant Information Sheet

Evidence-based Evaluation of Programme Interventions to Achieve Positive Community Integration Outcomes for Adults with Acquired Brain Injury

What is the research about?

This research will develop a framework for describing community integration for adults with acquired brain injury in the post acute phase. It will then investigate characteristics of programmes which influence community integration outcomes. The aim is to develop an instrument to evaluate community integration programmes for adults with acquired brain injury.

How will the research be carried out?

This research will be carried out in two phases. Respondents in both phases are people who have a direct interest in acquired brain injury including researchers, practitioners, policy makers, and consumers. In Phase One, a survey will be conducted in two or three rounds. In the first round, the respondents will be asked to address broad questions including their concept and definition of successful community integration. The data will be analysed and the outcomes will form the next round's questions aiming for more clarity to further develop the definition. In Phase Two, the characteristics of programmes that achieve positive outcomes in community integration for people with acquired brain injury will be identified, and this information will be used to develop the evaluation instrument. This Phase will be conducted in three or four rounds.

What will research participants be asked to do?

If you agree to participate, you will receive a questionnaire via mail which includes questions about your demographic characteristics (gender, age, education, language, etc). This will take approximately five minutes to complete. In Phase One, several questions addressing your concept and definition of successful community integration will be asked in two or three rounds, each round will take about half an hour of your time. Then, in Phase Two, you will be asked several questions to identify and describe the characteristics of acquired brain injury programmes you believe that achieve positive outcomes in community integration. The researcher may call you to remind you to complete and return the surveys. You may have an interview which will be audio tape recorded.

What will happen to the private information and information from the groups?

Complete confidentiality will be ensured in any publications or presentations that arise from this research and no personal details will be published. No names will be included on the questionnaires or the interviews that you will be asked to complete. Interviews will be audio taped and may be transcribed. You will be given a unique identity number and only the researchers will have access to the code. All information will be kept in a secure cabinet. The information from your participation and contribution in the research will be analysed and later used for developing the evaluation instrument.

Who do I contact if I have any question or want further information?
You are welcome to contact:

Researcher: Shahriar Parvaneh	Project Supervisor: Professor Errol Cocks
Tel: (08) 9266 1789	Tel: (08) 9266 3659
Email:	Email
shahriar.parvaneh@postgrad.curtin.edu.au	E.Cocks@curtin.edu.au

Thank you for your time and assistance.

This study has been approved by the Curtin University Human Research Ethics Committee (Approval Number HR 61/2007). If needed, verification can be obtained either by writing to the Curtin University Human Research Ethics Committee, C/- Office of Research and Development, Curtin University of Technology, GPO Box U1987, Perth 6845 or by telephoning (08) 9266 2784or by emailing hrec@curtin.edu.au .

CONSENT FORM

Evidence-based Evaluation of Programme Interventions to Achieve Positive Community Integration Outcomes for Adults with Acquired Brain Injury

I consent to participate in this research project. The nature of the research has been explained to me to my satisfaction and all of my questions answered. I understand that I am free to withdraw from the study at any time without any consequences.
I understand that this research includes two phases. In Phase One, a survey will be conducted in two or three rounds. In the first round, I will be asked to address broad questions about my concept and definition of successful community integration. The outcomes will form the next round’s questions. In Phase Two, I will be asked about the characteristics of programmes that achieve positive outcomes in community integration for people with ABI. This Phase will also be conducted in three or four rounds.

I understand that I will be asked to complete some questionnaires in each phase and to return the completed questionnaires to the researcher within one week. If required, I may be contacted after a two week period to confirm return of the completed questionnaire.
I understand that my sentences and opinions in the research will be used for content analysis.
I agree that results of this study may be published and, if so, my identity will be protected.

Name: ______________ Date: _____________

Researcher: Shahriar Parvaneh
Tel: (08) 9266 1789
Email:
shahriar.parvaneh@postgrad.curtin.edu.au

Project Supervisor: Professor Errol Cocks
Tel: (08) 9266 3659
Email
E.Cocks@curtin.edu.au

This study has been approved by the Curtin University Human Research Ethics Committee (Approval Number HR 61/2007). If needed, verification can be obtained either by writing to the Curtin University Human Research Ethics Committee, C/- Office of Research and Development, Curtin University of Technology, GPO Box U1987, Perth 6845 or by telephoning (08) 9266 2784or by emailing hrec@curtin.edu.au .

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Participant Information Sheet

Living in the community

Purpose of research

This research aims to describe community integration for adults with acquired brain injury. We want to know what living in the community means and what are the best ways to support community living.

What the researchers will do

We will talk with people with acquired brain injury, family members and people who provide services to find out what community integration means. We will talk with people a second time later to find out what works to support community integration.

What will research participants be asked to do?

If you agree to participate, we will talk with you individually or in a group about living in the community. We will contact you some time later to discuss the second question. We will tape the discussions with your permission.

What will happen to the private information and information from the groups?

No personal information that identifies individuals will be made available to anyone apart from the researchers who are named below.

Who do I contact if I have any question or want further information?

You are welcome to contact:

Researcher: Shahriar Parvaneh	Project Supervisor: Professor Errol Cocks
Tel: (08) 9266 1789	Tel: (08) 9266 3659
Email:	Email
shahriar.parvaneh@postgrad.curtin.edu.au	E.Cocks@curtin.edu.au

Thank you for your time and assistance.

This study has been approved by the Curtin University Human Research Ethics Committee (Approval Number HR 61/2007). If needed, verification can be obtained either by writing to the Curtin University Human Research Ethics Committee, C/- Office of Research and Development, Curtin University of Technology, GPO Box U1987, Perth 6845 or by telephoning (08) 9266 2784or by emailing hrec@curtin.edu.au .

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CONSENT FORM

Evidence-based Evaluation of Programme Interventions to Achieve Positive Community Integration Outcomes for Adults with Acquired Brain Injury

I have read the information on the attached letter. Any questions I have asked have been answered to my satisfaction. I agree to participate in this project but understand that I can change my mind or stop at any time.
I understand that all information provided is treated as confidential.
I agree for this interview to be taped/recorded.
I agree that research gathered for this study may be published provided names or any other information that may identify me is not used.

Name: ______________ Date: _____________

Contact details: Telephone: _____________ Email: ___________________________________

Signature: ______________________

Researcher: Shahriar Parvaneh	Project Supervisor: Professor Errol Cocks
Tel: (08) 9266 1789	Tel: (08) 9266 3659
Email:	Email
shahriar.parvaneh@postgrad.curtin.edu.au	E.Cocks@curtin.edu.au

This study has been approved by the Curtin University Human Research Ethics Committee (Approval Number HR 61/2007). If needed, verification can be obtained either by writing to the Curtin University Human Research Ethics Committee, C/- Office of Research and Development, Curtin University of Technology, GPO Box U1987, Perth 6845 or by telephoning (08) 9266 2784or by emailing hrec@curtin.edu.au .

Appendix B

Review of instruments for community integration outcomes for people with ABI

Review of instruments for community integration outcomes for people with ABI

Outcome measure	Description
Agitated Behaviour Scale (ABS)	ABS (Corrigan, 1989) is designed to evaluate the nature and extent of agitation during the acute phase of recovery from acquired brain injury. The instrument included 14-item and it may be useful with populations other than patients recovering from acquired brain injury (Corrigan, 1989; Corrigan, Bogner, & Tabloski, 1996).
Brain Injury Community Rehabilitation Outcome scales (BICRO)	BICRO (Powell et al., 1998) is designed to assess personal and social function problems experienced in living in the community by brain-injured patients. The original BICRO consisted of 76 items and the new one was reduced t to 39 items to evaluate treatment planning and outcomes assessment for ABI (Powell et al., 1998).
Community Integration Questionnaire (CIQ)	CIQ (B. S. Willer et al., 1993) is a brief and reliable measurement to evaluate returning to community for adults with ABI. It includes 15 items which evaluate community integration in three areas including home and social integration, and productive activities (Sander et al., 1999).
Community Integration Measure (CIM)	CIM (McColl et al., 2001) is a brief client-centred measurement to evaluate community integration for people with ABI. It has 10-item checklist in four categories of community integration consist of assimilation (conformity, orientation, acceptance), social support (close and diffuse relationships), occupation (leisure, productivity) and independent living (personal independence, satisfaction with living arrangement) (McColl et al., 2001).

Continued on next page

Review of instruments for community integration outcomes for people with ABI-continued

Outcome measure	Description
Craig Handicap Assessment and Reporting Technique (CHART)	CHART (Whiteneck et al., 1988) is an instrument which was originally developed and valid for people with spinal cord injury. The revised CHART (Mellick, Walker, Brooks, & Whiteneck, 1999) measures social participation for people with physical or cognitive impairments in six areas including cognitive independence, physical independence, mobility, occupation, social integration, and economic self-sufficiency.
Disability Rating Scale (DRS)	DRS (Rappaport, Hall, Hopkins, Blelleza, & Cpoe, 1982) is applied for adults with moderate to severe brain injury. It measures general functional changes on recovery from coma to community. DRS evaluates eight areas of the functional changes in four categories including consciousness, cognitive ability, dependence on other, and employability (Rappaport et al., 1982).
Functional Assessment Measure (FAM)	Clinicians developed FAM items by each of the disciplines in an inpatient rehabilitation program (Hall, 1997). It was developed as an addition to the FIM to specifically address the major functional areas that are less emphasized in the FIM. They were including cognitive, behavioral, communication and community functioning measures. The FAM consists of 12 items which are intended to be added to the 18 items of the FIM (Hall, 1997).

Continued on next page

Review of instruments for community integration outcomes for people with ABI-continued

outcome measure	Description
Functional Independent Measure (FIM)	FIM (Linacre, Heinemann, Wright, Granger, & Hamilton, 1994) is a functional assessment to evaluate progress during inpatient rehabilitation for people with ABI. FIM included 18 items with ordinal scales. It evaluates overall performance on ADL and determines need for assistance from another person (burden of care). There are two domains to functional assessment including motor domain and cognitive domain (Voll, Krumm, & Schweisthal, 2001).
Glasgow Outcome Scale (GOS)	GOS (Jannett & Bond, 1975) is a scale to predict of gross outcome in early acute medical condition. GOS was commonly used particularly after head injury before the other scales were developed. Its original categories were dead, vegetative, severely disabled, moderately disabled, and good recovery. DRS has been replaced GOS with a brief descriptive outcome scale (Hall, Cope, & Rappaport, 1985).
Mayo Portland Adaptability Inventory (MPAI)	MPAI (Malec & Thompson, 1994) was primarily was designed to clinical evaluation of people with ABI in the post acute period and to evaluation of rehabilitation programs designed to serve these people. The fourth version of MPAI designed to evaluate and rating of each of the areas and provide an assessment of major obstacles (social and physical) to community integration for people with ABI. It provides ratings of emotions, behaviour, functional abilities, and physical disabilities specific to people with ABI (Malec, 2004; Malec & Thompson, 1994).

Continued on next page

Review of instruments for community integration outcomes for people with ABI-continued

Outcome measure	Description
Neurobehavioral Functioning Inventory (NFI)	NFI (Kreutzer, Seel, & Marwitz, 1999) was designed to evaluate behaviours and symptoms associated with brain injury in daily living problems. There are family member and person with injury versions of NFI. Both versions address identical content areas. The responses of family members and the patient can be compared to identify differing perceptions (Kreutzer et al., 1999).
Reintegration to Normal Living Index (RNLI)	RNLI (Wood-Dauphinee, Opzoomer, Williams, Marchand, & Spitzer, 1988) is an instrument to assess global function status for people with ABI both in the patient's perceptions of their own capabilities and objective indicators of physical, social, and psychological performance. It evaluates changes in the clinical status of patients, particularly for the subscales of Daily Living and Perceptions of Self are considered (Wood-Dauphinee et al., 1988; Wood-Dauphinee & Williams, 1987).
Supervision Rating Scale (SRS)	SRS (Boake, 1996) is used as an outcome rating scale to evaluate the level of supervision was received by a people with ABI from caregivers. It consists of 13 points into five ranked categories. The ranked categories are Independent, Overnight Supervision, Part-Time Supervision, Full-Time Indirect Supervision, and Full-Time Direct Supervision (Boake, 1996).
Sydney Psychological Re-integration Scale (SPRS)	SPRS (Tate et al., 1999) is an instrument to evaluate psychological properties in persons with ABI. The SPRS has 12-item questionnaire on a seven point scale to measure three domains of everyday living commonly disrupted after severe brain injury including occupational activities, interpersonal relationships, and independent living skills (Kuipers, Kendall, Fleming, & Tate, 2004; Tate et al., 1999).

Continued on next page

Review of instruments for community integration outcomes for people with ABI-continued

Outcome measure	Description
The Patient Competency Rating Scale (PCRS)	PCRS (Prigatono, 1986) was developed to evaluate self-awareness following traumatic brain injury. It is included 30-item self-report instrument to rate the degree of difficulty in a variety of tasks and functions. The responses are compared to the person who rates the items. Awareness of deficit in PCRS may also be examined separately for the various domains including activities daily living, behavioral and emotional function, cognitive abilities, and physical function (Prigatano, 2005; Prigatono, 1986).
The Rancho Level of Cognitive Functioning Scale (LCFS)	LCFS (Hagen, Malkmus, & Durham, 1972) is a scales used to assess cognitive functioning in post-coma patients. LCFS was developed for use in the planning of treatment, tracking of recovery, and classifying of outcome levels. It included eight levels from one (No response) to eight (Purposeful-appropriate) (Hagen et al., 1972).

Appendix C

Phase one-Stage one: Survey form

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SURVEY FORM

Community integration for people with acquired brain injury

Welcome to Survey One - First Round

Your name……………………..

Purpose of the survey one

The survey seeks to obtain an understanding of what community integration means for people with acquired brain injury by collecting ideas, opinions, and perceptions from you as an expert panel member. These will be a further one or two survey rounds as we develop our description and definition,

Instructions

Task

The task is to define and identify aspects, components, and characteristics of successful community integration for adults with acquired brain injury.

Timeframe

Please reply to survey within five working days if possible. We will follow up with a gentle reminder after two weeks.

Responses

The responses may be listed as phrases, sentences, or paragraphs and are not required to be in priority order. Consider this as a brain storming exercise so explanation and examples are welcomed to improve the survey. Your responses can be written into this Word document file and returned by email to Shahriar Parvaneh at the address below.

Please contact us if you have any questions.

Researcher: Shahriar Parvaneh,

PhD Candidate School of Occupational Therapy

Curtin University of Technology

Tel: (08) 9266 1789
Email:
shahriar.parvaneh@postgrad.curtin.edu.au

Project Supervisor: Professor Errol Cocks
Tel: (08) 9266 3659
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SURVEY QUESTION

How would you describe and define successful community integration for adults with acquired brain injury? Please provide some examples.

Response

This study has been approved by the Curtin University Human Research Ethics Committee (Approval Number HR 61/2007). If needed, verification can be obtained either by writing to the Curtin University Human Research Ethics Committee, C/- Office of Research and Development, Curtin University of Technology, GPO Box U1987, Perth 6845 or by telephoning (08) 9266 2784or by emailing hrec@curtin.edu.au .

Appendix D

Phase one-Stage one: Interview schedule

Interview Schedule for people with ABI/Families

- **Part one - Introduction**

My name is Shahriar Parvaneh and I am a PhD candidate currently studying the School of Occupational Therapy at Curtin University and my supervisor is professor Errol Cocks. The interview is an opportunity for us to get your information about how people with acquired brain injury get involved in their society. At first I'd like to explain about the project. This study is to design a test to evaluate current rehabilitation programmes for people with acquired brain injury which help them to interact with their society efficiently. So, the first step is to find the meaning of community integration, and in continue to find the factors or characteristics of a successful community integration programme. For this purpose, we need help from the people who are mostly involved with acquired brain injury and know about its impact on people's life. The people who we will contact are people with acquired brain injury, their families, policy makers, researchers, and practitioners/therapists.

Thank you for your time and assistance.

- **Part two – Interview questions**

Now could you please let me know what dose successful living in community mean for people with acquired brain injury means?
Can you give me some more details?
Can you give me some examples?

How can people with acquired brain injury return to community? Please give me some examples.
Would you like add some more information/definitions about successful living in community for these people?
Thank you very much for your time and assistant. The second round of the study will start after collecting the other participant group members, very soon. Therefore, in that time we need some more information from you to improve the project.
Thanks.

Appendix E
Phase one-Stage two: Survey form

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Survey one the second round

Responses:

Please assign a numeric value to each description by putting ✓ in the table according to your level of agreement as following.

4. Strongly agree
3. Agree
2. Uncertain
1. Disagree
0. Strongly disagree

Successful community integration can be described according to the following themes

1: Relationships:

This means being able to keep friendships and family relationships. To be able to spend time with friends and family. To make new relationships. To get support from family, friends, and neighbours.

0 Strongly disagree	**1** Disagree	**2** Uncertain	**3** Agree	**4** Strongly agree

Please comment:

2: Community access:

Being physically present in the community and using community resources and opportunities such as goods and services, shops, cinemas, voting, studying, etc. It also means getting any practical and social supports that are necessary so this can happen. It means being as independent as possible in the community.

0 Strongly disagree	**1** Disagree	**2** Uncertain	**3** Agree	**4** Strongly agree

Please comment:

3: Acceptance:

Acceptance means being a part of the community and having a sense of “belonging”. Being seen as a valued person like other people.

0 Strongly disagree	**1** Disagree	**2** Uncertain	**3** Agree	**4** Strongly agree

Please comment:

4: Occupation:

This means being engaged in useful and meaningful activities at home and in the community, for example having a job, being involved in social, productive, and leisure or recreation activities. It also means being able to choose activities.

0 Strongly disagree	**1** Disagree	**2** Uncertain	**3** Agree	**4** Strongly agree

Please comment:

5: Being at home:

Being at home is feeling that you are in your <u>own</u> home. At home, you are free to have your own personal arrangements in the house, being able to live alone or with others, and doing ordinary things people do at home such as cooking and eating the food you like, watching TV, and reading the newspaper. It means that from home you can go to important outside activities such as the church/mosque/temple. It also means having friends and family around.

0 Strongly disagree	**1** Disagree	**2** Uncertain	**3** Agree	**4** Strongly agree

Please comment:

6: Picking up life again:

Picking up life again means returning to your old life as much as possible. It means returning to some old roles at home or in society such as a father/mother or other valued member of family, or roles in work or social life. It means coping and having confidence in yourself and in your ability to do this.

0 Strongly disagree	**1** Disagree	**2** Uncertain	**3** Agree	**4** Strongly agree

Please comment:

Please provide any additional suggestions and / or additional themes:

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Appendix F
Community integration framework for people with ABI

What does community integration for individuals with acquired brain injury mean?

Analysis of the information gathered from surveys, interviews, and the literature in the first stage of this project suggested seven indicators of community integration for people with acquired brain injury including: Relationships, Acceptance, Community access, Occupation, Being at home, Picking up life again, and Heightened risks and vulnerability.

What follows is a condensed description of these indicators.

1. Relationships

Relationship means maintaining existing relationships and forming new relationships. Having relationships ranging from close, intimate relationships and friendships to more distant relationships such as those with acquaintances. It includes people who you meet in the normal course of the day such as shopkeepers and bus drivers. It means being able to get benefit from the support of family, friends, and neighbours and contributing to those relationships.

2. Community access

Community access means being physically present in the community and able to choose and use community resources such as goods and services, shops, cinemas, education, health services, etc. It also means getting any practical and social supports that are necessary so this can happen. It means being as independent as possible in the community.

3. Acceptance

Acceptance means being included and participating in the community and having a sense of belonging. It includes feeling that you are a valued person and being valued by others.

4. Occupation

Occupation means being engaged and satisfied in useful and meaningful activities at home and in the community, for example having a job, being involved in social, productive, and leisure or recreation activities. It also means being able to choose how you spend your time.

5. Being at home

Being at home is feeling that you are in your home. At home, you are free to have your own personal arrangements in the house. You can choose to live alone or with others. You can do the ordinary things people do at home such as cooking and eating the food you like, watching TV, and reading the newspaper. It means that from home you can go to important outside activities which you choose.

6. Picking up life again

Picking up life again means returning to some old roles at home or in society such as a father/mother, partner, or other valued member of family, or roles in work or social life. It also means having new experiences and developing and taking up new roles. It means having confidence in yourself and in your ability to do this.

7. Heightened risks and vulnerability

Community integration also involves additional risk if you have an acquired brain injury and may be vulnerable. For example there may be risks of social isolation, exploitation, or physical harm.

Appendix G

Phase two-Introductory letter for stage one

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Dear participant,

Thank you for your participation in Phase One of our project **“living in the community”**.

In Phase One we developed a description/definition of successful community integration for people with acquired brain injury.

In Phase Two, we want to identify what a programme should do in order to positive outcomes in community integration for people with acquired brain injury.

This Phase will be conducted in three or four rounds. In the first round we ask you to address the name and describe what a programme should do in order to positive outcomes in community integration for people with acquired brain injury. In further rounds, you will make clear them and then select their importance.

Please read the results of the First Phase (Definition of community integration) which is enclosed and think about the name and describe what a programme should do in order to positive outcomes in community integration for people with acquired brain injury which will discussed in the next group interview.

Please do not hesitate to contact us if you need any more information.

Researcher: Shahriar Parvaneh Tel: (08) 9266 1789 Email: shahriar.parvaneh@postgrad.curtin.edu.au	Supervisor: Professor Errol Cocks Tel: (08) (08) 9266 3659 Email E.Cocks@curtin.edu.au

Thank you for your time and assistance.

Shahriar Parvaneh

PhD Candidate

School of Occupational Therapy and Social Work; Curtin University of Technology; GPO Box U1987 Perth; Western Australia 6845; Telephone: +61 8 9266 1789; Fax: +61 8 9266 3636; Email: shahriar.parvaneh@postgrad.curtin.edu.au

CRICOS Provider Code 00301J

Appendix H

Phase two-Survey form for stage one

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Survey form for the first round of the Phase Two

Using the description of community integration that we have provided, please list and briefly describe what a service/programme/intervention for people with ABI should be doing to address community integration. This could include characteristics or attributes of programmes that are likely to be effective in achieving community integration outcomes according to our definition.

Please name and briefly describe the programme characteristics or attributes you believe to be important using the following table.

Name of the attribute or characteristic	Brief description

Please add more characteristics/attributes if you wish.

Appendix I

Phase two-Interview schedule for stage one

Curtin
University of Technology

Interview framework for people with ABI

Introduction:

Thank you for your participation in the First Phase of our project "living in the community".

In phase one of the project from discussions with you and the other participants we found and developed a clear meaning of living in the community for people with acquired brain injury. The results showed that seven themes are the most important indicators of community integration for people with ABI. They were nominated as Relationships, Community access, Acceptance, Occupation, Being at home, Picking up life again, Heighten risks and vulnerability. Also, each of them has a special description which we sent them to you before the meeting.

In phase two through three or four rounds we want to identify what a programme should do in order to positive outcomes in community integration for people with acquired brain injury.

Today in the first round we ask you to address the name and describe what a programme should do in order to have positive outcomes in community integration for people with acquired brain injury. In further rounds, you will make them clear and will think about their importance.

Instruction:

First part

1. How a programme can teach you a successful relationship: from close friendships to even people who may see briefly from time to time such as doctors, shops, etc for people who are in there?
2. What are the most important factors in a programme from your opinion for being physically independent, present in the community and able to choose and use community resources? Such as, goods and services, shops, cinemas, education, health services, etc.
3. What should a programme have to help for participating in community and having a sense of belonging? And, feeling that you are a valued person and being seen by others as valued?

4. Which factors are important in a programme for having a job, being involved in social, productive, and leisure or recreation activities? And, being able to choose how time is spent?
5. What are important factors in a programme to help feeling being at home? Such as, personal home arrangements, living alone or with others, cooking and eating the food you like, watching TV, and reading the newspaper. Going from home to important outside activities which you choose, and having comfortable feeling in community the same as being in your home.
6. Which factors are valuable in a programme to help returning to some old roles at home or in society and having confidence or, ability to do this? Such as a father/mother or other valued member of family, or developing and taking up new roles in work or social life
7. How a programme can provide a safeguard to prevent psychosocial or physical vulnerability risks of community integration? Such as, social isolation, abuse, physical harm, etc.

Second part

Please let us know what are the factors else of a successful community integration programme? Or which factors else are very important in a programme to achieve positive community integration for adults with ABI? Also, could you please briefly explain them?

Appendix J

The first step results including 40 items and 236 descriptors

1: Relationships: Relationship means maintaining existing relationships and forming new relationships. Having relationships ranging from close, intimate relationships and friendships to more distant relationships such as those with acquaintances. It includes people who you meet in the normal course of the day such as shopkeepers and bus drivers. It means being able to get benefit from the support of family, friends, and neighbours and contributing to those relationships.

Items	**Descriptors**
Culturally common and valued way to get and receive support	• Culturally common and valued way to get and receive support • Considering individual's needs and values • Recognising individuality and choice • Considering long term partnership
Environmental conditions	• Environmental conditions • Considering environmental factors in real relationships • Normal social context including people without disability • Ritual attending (Birthday,…)
Circles of support	• Circles of support • Network support • Supporting groups • Attending students network supports • Personal relationships support • Personal support with consequence of ABI • Real and natural relationship supports • Stakeholders group to understand PWABI

Maintaining current and old, and new relationships	• Maintaining current and old, and new relationships • Maintaining old and new relationships • Facilitation new roles and relationships • Redefining relationships terms to persons current circumstances • Different approaches to different relationship levels
Therapeutic alliance	• Therapeutic alliance • Multidisciplinary input • Maintaining strong therapeutic relationships among service and client • Clear expectations from service and client in programme and their responsibilities
Collaboration approach	• Collaboration approach • Family and friends meetings • Individuals and families constant contact
Social communication skills	• Social communication skills • Social groups for all • Training and developing relationship skills for staff, families and friends • Relationships safeguard skills • Considering personal sound knowledge in relationships
Relationships opportunities availability	• Relationships opportunities availability • Real and desire opportunities • Having a reference to improve relationships

	• Relationships between PWABI and normal people • Specialists counseling services • Social work services • Therapeutic relationships between service and clients • Practice normal relationship roles with meeting in meeting with relevant and their children • Life role relationships in real support conditions
Skilled Support staff	• Skilled Support staff • Responsible staff to provide and maintain old and new relationships • Relax and friendly staff • Staff consistency with service location
Considering sense of purpose to relationships	• Considering sense of purpose to relationships • Considering relationships as a goal • Community based focused • Promotion personal relationship needs • Recognising individuality and choice
Inform staff and relevant about client's life background, and needs	• Inform staff and relevant about client's life background, and needs • Inform staff and relevant about client's life • Inform support staff, families and friends about client's background • Inform community, and visitors about PWABI living
Relationship strategies	• Relationship strategies to improve community

	acceptance - Training and using electronically communication services - Individual's visitor book - Showing and understanding individual's abilities - Step by step improvement - Using media, book stories, and speaking to improve old and new relationships

2: Community access: Community access means being physically present in the community and able to choose and use community resources such as goods and services, shops, cinemas, education, health services, etc. It also means getting any practical and social supports that are necessary so this can happen. It means being as independent as possible in the community.

Items	**Descriptors**
Contextually relevant to community access	- Contextually relevant to community access - Community base programme - Relevant strategies and skills to community access
Community access collaborative	- Community access collaborative - Family and friend collaboration - Social network collaboration
Coping and access to community strategies	- Coping and access to community strategies - Considering client personality, ability, desire, and barriers - Pre injury interests and now desires - Training and supporting community access opportunities - Responsibility to community environment - Safeguarding roles to community access risks

	• Access to community resources • Supporting ratios to improve community access
Programme consistency	• Programme consistency • Activity and place consistency • Support staff's consistency attitudes to individuals
Community appearance strategies	• Community appearance strategies • Consistent and positive effort to appearance in community • Paid and unpaid supports • knowing person's community access needs, abilities, and desires • Inform support staff about person's community access needs, abilities, and desires • Providing suitable access to community • Considering individual's approach, and skills; and matching them with social skill needs to community access • Minimising negative images and approaches • Using positive and encouraging language • Considering personal ownership, and possession • Collecting information about community access from different sources • Arranging rosters and routines to community access • Getting and sharing families, friends, and support staff ideas about community access • Stakeholders meeting to share information • Monitoring individual access to community and its

	outcomes regularly • Having good role models for better community access • Encourage and positive efforts to appearance in community • Safe access and inclusion in community • Governmental negotiation to provide more facilities for PWABI • Gathering other services to community access • Interdependency between NGO’s, families and PWABI • Individual physical settlement to use programme • Considering personal abilities to maximum access to community
Personal community access development	• Personal community access development • Contribution community access and participation to personal development • Practice on community access with support designs • Training and encouraging to use general services • Encouraging to use public transportation • Reduce personal behaviour adverse with informing support staff about client’s characteristics emergency condition and access • Social training and activities • Training rout finding, orientation • Introducing ABI facilities and societies in community • Daily constant self care programme
Skilled support staff to safe community access	• Skilled support staff to safe community access • Knowledgeable carers to manage emergency

	communication conditions • Unpaid personal support facilities for holidays and weekends

3: Acceptance: Acceptance means being included and participating in the community and having a sense of belonging. It includes feeling that you are a valued person and being valued by others.

Items	**Descriptors**
Community acceptance opportunities	• Community acceptance opportunities • Group activity programme • Integrated group including families, friends, support staff, and PWABI • Community club membership with specific responsibility • Practice on self problem solving in clubs
Goal-based client centre programme	• Goal-based client centre programme • Client centre in rehab programmes • Flexibility and sensitivity with client needs and values • Full adapted with client desires and abilities • Accepting PWABI as value people • Considering individual independency in discharge time • Accessibility and opportunity for different levels of abilities and needs • Non discriminatory approach to disabled persons • Having a clear picture of client desires, abilities,

	needs, and barriers to involving in community • Considering individual responsibilities in community and practice on them in service • Outing activities in individual manner • Developing personal independent and acceptance • Recognising attainment of skills or achievements • Considering client future needs
Community accept strategies	• Community accept strategies • Structured predictable pattern for living in community • Address most relevant aspect of community integration • Regular outcome evaluation • Prepare community to accept client • Having guideline and personal support to positive appearance • Having educated society roles to provide higher human value • Having positive role models for staff • Having support staff with positive attitudes • Skilled support staff in community acceptance techniques • Employed qualified support staff according to individual needs • Facilitating and encouraging social interactions • Real initial client assessment • Real timeline programme from admition to

	discharge • Access to external supports • Changing service language in activities to their real name • Involving families and other important people for client in programme • Public awareness about PWABI abilities and their needs • Sharing knowledge regarding individual with family and support staff • Personal standard opportunities aids and supports • Positive and appropriate communication strategies • Supportive practices in normal life style as well as possible • Recognising needs to specific equipments and normalise them in service • Residents and support group interactions • Small group supports or one by one support • Informing community about ABI risks and ways to prevent them to reduce number PWABI
Sense of past individual history to community access	• Sense of past individual history to community access • Knowing personal history before injury • Celebration personal life • Displaying person’s history throughout the home

4: Occupation: Occupation means being engaged and satisfied in useful and meaningful activities at home and in the community, for example having a job, being involved in social, productive, and leisure or recreation activities. It also means being able to choose how you spend your time.

Items	**Descriptors**
Supported employment	• Supported employment • Step by step occupation • Practice on small business • Recognising and encouraging home activities • Psychological support to adapt with the new occupation
Client focus occupational programme	• Client focus occupational programme • Considering individual knowledge, needs, abilities, and limitation in occupation • Knowing personal previous occupation desires • History sense of occupational previous occupation • Individual planning for occupation • Different occupational opportunities for different people • Believing individual abilities rather than disabilities • Considering individual attitude and desire in occupation
Meaningful and maintain occupation	• Meaningful and maintain occupation • Considering occupation vulnerabilities • Finding adequate occupation according to new attitudes and abilities
Improving personal skills in occupation	• Improving personal skills in occupation • Improving life style independency with

	occupation • Life long learning approach • Appropriate environment to learn and occupation • Voluntary work to practice occupation • Giving responsibility in service or recreation activities • Allowing time to complete tasks and activities in the real environment with the support
Linking service with other service providers or occupation services	• Linking service with other service providers or occupation services • Real time and environment in different services to practice skills for occupation • Occupation course and training opportunities through different services
Initiating participation and, ultimately contribution	• Initiating participation and, ultimately contribution • Teaching skills around actively participating in leisure, vocational and educational activities • teaching independent involving techniques in occupation • Ultimately teaching how to make contribution back to the community would be ideal

5: Being at home: Being at home is feeling that you are in your home. At home, you are free to have your own personal arrangements in the house. You can choose to live alone or with others. You can do the ordinary things people do at home such as cooking and eating the food you like, watching TV, and reading the newspaper. It means that from home you can go to important outside activities which you choose.

Items	**Descriptors**
Training independent living strategies	• Training independent living strategies • Co-residency and sharing house to practice living at home • Training maintain and respect home • Home management responsibility • Individual support to understand notion of home • Engaging person with home responsibilities and control home environment • Sanctity respect to home • Involving client relatives in programme • Home design according to personal abilities
Home feeling focus	• Home feeling focus • Personal centre environmental design • Home attitude rather than service attitude • Personal space with freedom expression feeling • Considering home activities • Maximum interactive opportunities • Place for close relationship with partner • Accommodation support • Personal and regular home activity programme
Providing ownership sense or feeling	• Providing ownership sense or feeling • Encouraging self management • Receiving rehabilitation services in their home • Regularity and reliability of home services • Home management responsibility

6: Picking up life again: Picking up life again means returning to some old roles at home or in society such as a father/mother, partner, or other valued member of family, or roles in work or social life. It also means having new experiences and developing and taking up new roles. It means having confidence in yourself and in your ability to do this.

Items	**Descriptors**
Client-centred focus	• Client-centred focus • Flexibility programme duration according to client's needs • Appropriate knowledge about life again needs and ways • Individual approach programme • Individual psychological, emotional, and emotional support • Transitional support to new roles and life • Group and individual rehabilitation needs support • Skilled counseling transitional service support • Individual barrier solving strategies
Respect client history background	• Respect client history background • Inform support staff about client's past • Real personal stories to show life again abilities • Finding client abilities from his/her history
Pickup life again opportunities	• Pickup life again opportunities • Allowing real life opportunities • Recognising people with past interesting experiences • Considering home activities • Considering value roles in community

	• Involving support staff, families, and friends to • provide real social experience • Personal development training • Identifying and establishing valued roles

7. Heightened risks and vulnerability: Community integration also involves additional risk if you have an acquired brain injury and may be vulnerable. For example there may be risks of social isolation, exploitation, or physical harm.

Items	**Descriptors**
Understanding personal and service provider needs to each other	• Understanding personal and service provider needs to each other • Matching services with client's needs • Group therapy for common problems/risks • Short and long time strategy focused
Risk management and solving	• Risk management and solving • Knowing and planning to heightened risks • Informing clients about harmful conditions • Inform clients about advantages of living together • Risk conditions and community support advise • Skilled staff to medical emergency conditions • Considering individual abilities, desires, and needs in activity daily livings • Recognising individual possession • Offering real supportive social activities to risk awareness • Inform clients about factors of successful community integration • Inform clients about community integration risk

	factors
Considering appropriate support levels	• Considering appropriate support levels • Inform support staff, families, and friends about their support level • Inform support staff, families, and friends about side effects of child like support for clients
Vulnerability prevention techniques	• Vulnerability prevention techniques • Considering maintaining good environment according to client's needs • Service support staff in their roles • Support staff trained to manage emergency conditions • Clear policies on abuse • Regularly medication and health conditions checking • Prevention of isolation with encouraging to live together • Considering isolation risk in practices • Considering physical harm in practices • Considering independency level to have safe and good life at home • Keeping individual safety • Training risk conditions (physical, mental, emotional, financial,..) • Training relationships without risk strategies • Community access without succumbing to addictions

	• Managing life difficulties techniques • Financial management training • Risk prevention training for clients, their relevant, and staff • Professional advise by expert persons to clients and their relevant • Involving client’s relevant in his /her life • Accessible trained support staff to prevent psychological problems

Appendix K

The third step results including seven clusters and 20 sub-clusters

Cluster one: Collaboration

BRIEF DESCRIPTION: Involving and working with relevant stakeholders in order to enhance community integration.

Sub-cluster 1.1

The service works closely with family and friends of service users

Coded data:

Service has a constant contact person/manager who is able to develop a strong therapeutic relationship which is maintained over time among service provider, individuals and families, and who is able to provide clear expectations about what the programme will provide. (2G1)

Service selecting and introducing a special contact person to inform families about residents' conditions or improvement.(27C1)

Service has a commitment to family involvement. (6C7)

Programme encourages family members to participate. (6C8)

Programme keeps inform important people to the person with ABI about the person's life. (6C9)

Service extends its programmes beyond the individual client to include family members, and others in the social network. (2D1)

Service encourages family to support individuals for being ready to use community services and being in the community. (22-26J1)

Service informing individuals' families about qualities and quantities of the programme. (27D1)

Service informs families about their responsibilities and rights in the programme. (27H1)

Service accepts families as a main part of the teamwork.(28D1)

Service gives regular progress reports regards resident to families and relevant. (27M1)

Service has respect to resident relative and considering them as a main effective part of the programme to achieve the goals. (27I1)

Service considering some conference, conference call, or workshops for residents' relevant to involve them in the programme. (27J1)

Service informing families about visitor's policies. (28J1)

Programme provides and gathers stakeholders with an understanding of the individuals. (6D2)

Programme ensures the involvement of families and others important to the person. (6L5)

Service encourages family and friends to be involved or maintain involvement in the person's life. (6W5)

Sub-cluster 1.2
The service staff work as a team

Coded data:
Service ensuring that staff working within the service location as a team. (28E1)

Service provides appropriate sharing of knowledge regarding the individual. (6I8)

Programme considers multidisciplinary approach with encouraging whole team work and discuss together about the client all the time. (4D1)

Service invests in ensuring that some consistency is evident in the support staff's attitudes and beliefs and that these focus on the individual. (6E5)

Sub-cluster 1.3
The service accesses and works collaboratively with community services

Coded data:
Programme provides information on various services in the community, whether it is recreational, educational, therapeutic or otherwise and referring people to appropriate ones and/or advocating for them on their behalf to enable access to them. (15A1)

Service encourages government to consider and provide more community access for people with ABI. (21J1)

Service provides interdependency between NGOs, people with ABI and their families to solve their transport problems and getting cheap and fast transport facilitations from government. Such as, small ramp for electrical wheelchair, low-priced wheelchair taxi, more seat for disabled people in train or bus, and unpaid carer. (21K1)

Programme provides opportunity to use services by person with ABI. (22-26I1)

Service liaises with other service providers to achieve CI outcome. (5N1)

Service finds work/job through specific agencies such as Interwork/Active Foundation. (11&12D1)

Sub-cluster 1.4
The service works cooperatively with advocacy groups

Coded data:
Service works not only with client but with other identified stakeholders to achieve best outcomes e.g. volunteers. (18C1)

Programme has some forums for sharing, and encouraging of ideas with all stakeholders and advocacy groups. (6F6)

Service redefines relationships between advocacy staff and clients. (28S1)

Cluster two: Relationships

BRIEF DESCRIPTION: Awareness and understanding of the importance of relationships. Working to support and develop existing and new relationships.

Sub-cluster 2.1

The service is aware and understands the importance of a range of relationships in the lives of service users.

Coded data:

Programme understands and encourages people with ABI to change their outlook and ways of dealing with every thing to being more involve and acceptable by community relationships. (9B1)

Programme understands the need for different approaches to different relationship levels or intensity. (6A2)

Programme has a reference to friendships in the organisation's mission statement and policy. (6B3)

Service seeks to ensure that relationships are valued as part of its culture. (6C3)

Staff in the service understands their role in relation to supporting and enhancing relationships. (6A4)

Service supports the person needs to ensure that the importance of relationships is promoted, supported and maximised at all levels of the organisation. (6C2)

Sub-cluster 2.2

The service supports and develops existing and new relationships.

Coded data:

Programme keeps adequate information to inform staff of the person's community access preferences and needs for improving relationships. (6E4)

Programme supports the person to find ways to contribute and reciprocate relationships with other persons. (5B1)

Programme supports to maintain current and old relationships including redefining these relationships in terms of the persons current circumstances. (5A1)

Programme supports staff to ensure that relationship contacts are maintained. (6C5)

Programme ensuring relationship building has a sense of purpose for the individual, other party to the relationship and those who have a role in facilitation and support.

(6B1)

Service making new relationships opportunities for developing client’s relationships with old and new friends, family, service staff, and community (6A1)

Service improves relationships with keep a visitor book in his room to visitors catch up with what he’s been doing and who has been in and write a note, carers write when he has gone out etc. (21G1)

Programme improves new and old relationships by pre-injury film/video footage (it’s quite powerful and revealing to see and hear him speaking), stories which introduce him and give him opportunity to show his pleasure and memory non verbally and allow the other see his reaction and so enhance listening to the non verbal person, elicit a shared interest with or without conversation topic(21E1)

Service to improve relationships inform visitors about individual history by encourage Photo displays kept up to date in his room of pre and post ABI, events he’s attended often with friends, as a great way to keep up visitors with news and also provide a conversation topic. (21F1)

Service provides a loose leaf folder ‘log’ of one page photo with a sentence entries beginning when he was a child until present. To introduce him to carers/friends and be a conversation starter to improve relationship. (21H1)

Service ensuring relationships between PWABI and others/people are promoted. (6C1)

Programme ensuing new and existing relationships are supported or facilitated/encouraged. (6B2)

Sub-cluster 2.3

The service works to provide real opportunities for relationship roles to develop in areas such as work, education, and recreation.

Coded data:

Service encourages participating sports, community recreation with support (i.e. special Olympics for those interested). (11&12B1)

Service supports the person to facilitate new roles and relationships, where required. This could involve creatively considering ways to include people in the person’s life as it is post ABI. (5B2)

Service should provide early opportunities for individuals with ABI to engage in and experience real life roles, tasks and activities (10A1)

Service considering life roles tend to flow from relationships e.g. Godfather, uncle, mate, friend, member of Inability Possibility and group of friends and family which meets monthly. (21D1)&(21B1)

Programme contributes community access and participation activities to person’s ongoing relationships development. (6G1)

Service considers environmental factors which will contribute to the “real relationship” development or ongoing support. (6A5)

Programme is able to initiate participation and contribution before commencing down the more complex pathway of, firstly establishing roles in the community. This revolves around purposeful activity outside of home. (7D1)

Programme holding some workshops to encourage friendships and peoples experiences of friendships. (6C6)

Programme ensuring that the relationship support or development is real and as far as possible natural. (6A3)

Service has attention to improve relationships through giving some role to residents in recreation, or occupation activities. (27A1)

Service considering relationships roles for individuals during to occupation, or work training coursers. (27A2)

Cluster three: Person centred approaches and planning
Knowing service users very well and responding to their strengths and individual preferences.

Sub-cluster 3.1
The service knows its service users very well.

Coded data:
Service has a picture of what individuals enjoy, dislikes and why to find the best way for him to participate and maintain in community. (21P1)

Service knows individuals strength, vulnerabilities, skills, goals, aspirations (3A1)

Programme aware and understand individuals’ needs and have a good feeling with their needs. (22-26M1)

Programme ensuring persons are known well, and their needs are thoroughly understood by service provider. (5S1)

Service knowing & respecting client background & history well(28G3)

Programme knowing before injury personal history and informing those supporting the individual to promote acceptance and individual worth. (6J1)

Programme knowing person interests and hobbies to personal support. (6P2)

Service treating person past history with respect. (6R2)

Programme has support staff with good knowledge of the individual’s past and current life experiences. (6R1)

Sub-cluster 3.2

The service focuses on the service users' strengths and abilities rather than disabilities

Coded data:

Service is ongoing monitoring of person's progress. (27E1)

Programme interpreting person's needs and aspirations and vulnerability to ensure individuals community see the person's potential. (5K1)

Service presents stories about the person in a positive image and enhancing manner. (6R3)

Service focuses on to accept a person rather than person totally adapting to the community. (3D2)

Programme focuses staff attitudes and beliefs on resident's abilities rather than disabilities. (6N4)

Programme focus on functional strategies and look at the client's ability to cope in the community (4C1)

Service aware looking after ones physical and mental health is essential. (7F1)

Sub-cluster 3.3

The service plans and provides programmes based on each individual service user.

Coded data:

Programme supports the person to the extent required–balanced not taking over(5A1)

Programme focusing on client-centre goals to drive rehab programmes so that the aspects of community integration that are most relevant to the client are addressed, not therapist-driven or problem-based. Also allow more relevant evaluation of outcomes (2C1)

Service focus on person's capacities, independence and self management

Programme ongoing monitoring occurs to ensure that access is occurring, is appropriate and delivering good outcomes to the person with ABI. (6F5)

Programme goals based on client goals and needs. Too often discharge goals are set around the organisational needs and they do not adequately prepare the client for life outside of hospital. (10D1)

The service ensuring access and participation into the community is undertaken on an individual basis. (6F1)

Programme is specifically tailored to one's cognitive capacity, not a "one size fits all" approach (8A1)

Programme matches for person with ABI their personal skills with social skills. (6G4)

Service considering individual independency and acceptance in discharge time. (28L1)

Programme provides service personal and others value opportunities that the person with ABI is giving to them. (6I4)

Service has less non-discriminatory programmes for disabled persons. (20B2)

Programme has suitable possibility to match service users and support staff. (6W4)

Service has flexibility and sensitivity with client needs, abilities and values over time. (28B2)

Service has different appropriate levels of activity for different type of disability. (20B1)

Programme considers using community access is different from person to person and it depends on the person (22-26K1)

Service offers rehabilitation / growth through challenging individuals to reach effective goals. Not programmes to 'fill in time'. (20F1)

Programme should have structure to achieve community integration goals. (18B1)

Programme should identify specific goals with time steps and frame and time frame to achieving goals be identified. (18B2)

Programmes should follow a predictable pattern to enable it to become part of the routine of the person with ABI(8D1)

The service should seek opportunities that will enhance or pick up the life of the individual. (6T1)

Programme provides some training for staff on the proper use and maintenance of the individual's personal possessions. (6W11)

Programme/service based on a person centered approach to service design/planning so that supports are individually tailored (19A1)

Sub-cluster 3.4

The service closely follows the needs, aspirations and preferences of the service users.

Coded data:

Programme providing or having choices to individual which communities he becomes involve in. (21N1)

Service enforcing and providing some responsibilities for individuals to manage parts of the programme. (22-26M1)

Service finds and shows purposeful and meaningful activities to individuals according to their interest and abilities to involve them in social and leisure or recreation activities.

(21P1)

Service considering client life style, personality, ownership & possession. (27B1)

Programme recognising the individuality and choice of the person being supported and does not try to impose its own beliefs onto the individual. (6D1)

Programme focuses on what outcome person wants e.g. be client focused and have meaning for them (3B2)

Person being supported and service does not try to impose its own beliefs onto the individual. (6D1)

Service interpreting the person's needs and aspirations to others. (28B1)

Service closely links to the needs, aspirations and personality of the individual. What interests pre ABI can be re established for the person. (5F1)

Programme is adaptable to changes in priorities, goals, emotional status, and altered circumstances of the individual (2F1)

Programme considering Future needs. (6K4)

Programme considering individual needs are at the fore of service development. (6K7)

Programme has some services based on individuals needs. (22-26H1)

Programme provides outing and activities in an individualised manner. (27F1)

Programme focuses on the client's perceived needs. What they need to achieve in all areas, every one is individual and needs different support (4A1)

Service considering clients need fluctuate, change and support over time. (18A1)

Programme focusing on the client's perceived needs, what he/she wants to achieve in all the areas, not therapist-directed (2A1)

Cluster four: Service environment, culture, and atmosphere
Brief Description: Providing a comfortable and welcoming environment.

Sub-cluster 4.1
The service setting is comfortable and home-like.

Coded data:
Programme involves family and friends to provide feeling at home for individuals. (21Q1)

Programme considers a person with ABI has personal possessions which are visible. (6H5)

Service should do environmental design as personal center. (6Q1)

Programme encourages responsibility associated with home such as cleaning, repairs, bill paying. Etc. (5R1)

Programme builds into the culture and alleviates the needs for over prescript routine schedules in daily rhythms of the home. (6M2)

Programme provides attending ‘rituals’ e.g. weddings, christenings, birthday parties, funerals. (21C1)

Programme trains feeling that individual can have things that belong to them and arrange them as their ordinary including their stuff and pets. (22-26P)

Service considering personal environmental designs and providing individual home notion. (27G1)

Programme supports the individual to understand the notion of “home”. (6Q2)

Service teaches the person to maintain and respect home and build pride and belonging in home environment even if shared. (5Q1)

Programme shapes staff attitudes to service setting as a home rather than facility. (6Q3)

Programme provides personal space for individual. (6Q4)

Service provides meeting and interacting with children of friends as ‘Uncle’, Dad’s mate Nolesy similar their home. (21B1)

Service considering space to close personal and intimate relationships opportunity for the individuals with ABI and their partners to have privacy afford. (6Q9)

Programme facilitating and respecting the sanctity of the person’s home. (5P1)

Programme providing opportunity for the person to have freedom of expression within the home space. (6Q5)

Sub-cluster 4.2

The service is accessible for people with acquired brain injury and other stakeholders.

Service has ability and facility to accept individuals for physical settlement to use the programmes. (21M1)

Service considering activities between people with ABI and non disabled people. (28C1)

Service aware depending on the ABI; living close to public transport is essential. (16&17B1)

Service provides some facilities for residents to access resources and staff very easy. (28A1)

Service encouraging individuals' relevant to access in programmes and service facilities. (28A2)

Sub-cluster 4.3

The service atmosphere is friendly, welcoming, and respectful.

Coded data:

Programme encourages friends and family to visit and made feel welcome. (6Q8)

Programmes offers quality materials, equipment or resources and don't feel like 'anything will do for the disabled'. (20D1)

Service has great, friendly, and respectful greeting and welcoming to residents in front desk. (28G1)

Service has staffs who are open, care for the individual and have real desire to see the disabled person flourish (20A1)

Service considering respectful manner to individuals and their families as a members of the service. (28G2)

Service has respect and welcome to person's relevant. (27I2)

Cluster five: Community based practices

Brief Description: Service policies and practices are community based.

Sub-cluster 5.1

The service practices are located in community settings.

Coded data:

Service supports individual to find the right accommodation and being able to keep it. (11&12E1)

Service has consistency of activities and some places to ensure positive and successful outcomes for the person. (6E1)

Programme allowing time to complete tasks and activities in the real environment with the support of the programme (10B1)

Programme has facilitating and supporting opportunities for access to ordinary community experiences as required. (5E1)

Programme located in the home/community of the client, not centre-based to facilitate the development of relevant strategies and skills, overcome problems with generalisation (2B1)

Service has undertaken independent review from the creation of "home" and a "good life" for the person. (6W9)

Service achieving home activities accessibility for the person. (6T3)

Programme displaying person’s history throughout the home. (6K2)

Programme provides facilities for people with ABI to live in Permanent group homes, or in their own unit, and receive rehabilitation in there. (16&17D1)

Programme provides opportunities to enable the person with a disability to engage/control his/her home environment. (6Q6)

Programme has more equal and safer access to places in the community such as shops, restaurants, cinemas, parks etc, as well as accessible transport to get them there. (15C1)

Sub-cluster 5.2

The service has well-developed linkages and networks with community resources.

Coded data:

Service works with the community/groups that person is interested in being a part of. (3D1)

Programmes provides maximise integration with normal social contexts, and encourage able-bodied people to participate – or conduct the activity in the course of a normal social context. (20G1)

Service introducing community resources and services to ABI associations and people with ABI. (22-26G1)

Programme/service is based on developing supports/networks/relationships that are community-based (19B1)

Sub-cluster 5.3.

The service promotes independent living in community.

Coded data:

Service gives a sense of satisfaction and purpose to the community activity. (20C1)

Programme should implement practices which support and seek to provide a lifestyle as “normal” as possible. (6K5)

Service has some share house to prepare individual to learn and practice responsibility, managing and independent living at home with family. (21R1)

Service should provide opportunity for living with others who voluntarily agree to do so – perhaps for some incentive such as free rent. (1C1)

Programme considering accommodation is a big issue for independent living in the community. (11&12E2)

Service empowers the person to maximise their independence and to create their own home and lifestyle. (5O1)

Cluster six: skills development

Brief Description: Focusing on developing individual skills and abilities that facilitate community integration.

Sub-cluster 6.1

The service encourages and provides opportunities for the development of:

a. Social skills

Coded data:

Programme has access to external support and advice re personal grooming. (6I7)

Programme takes a conservative corollary approach in relationship to appearance and behaviour. (6H6)

Programme should teach how to set up regular health checks, managing diet, going to the GP, optometrist, physiotherapist etc – how to make the appointment, convey what is wrong and use the advice, managing medications (understanding what they are for, what side effects they may cause, how to talk to the pharmacist). (7F2)

The service encouraging household events for part of the daily, weekly and monthly home norm which they are not described as special activities. (6M1)

Service considers some social activities to inform individuals to learn social involving techniques. (9B2)

The service ensuring that consistent and positive effort is made in regards to the person's personal appearance. This also includes paid support personal. (6E3)

Programme provides guidance to the person with ABI and support personal in relation to positive appearance. (6I1)

Service considering matter of time, also support and train individual to help build persons self esteem. (11&12C1)

Service has group programmes to provide an opportunity includes younger children and adults with ABI to practice on look after the children and getting responsibility about them. (22-26N1)

Service provides some facilities to show people abilities to start again and help people to come out of being self–centred. (22-26R1)

Programme should provide solving problems' groups with common problems but not the same problem to learn social conversation and problem solving from each other. (22-26W1)

Programme considers some courses/workshops that teach confidence building, effective communication and self awareness to build up their self esteem and promote self determination. (15D1)

Service provides participating in social groups with like-minded people in a safe environment which is structured, fun and welcoming to all. (15B1)

Service encourages and makes social skills opportunities for service users.(28H1)

b. Occupational skills

Coded data:
Programme fundamentally considers ongoing personal skill development for the individual. (6N1)

Service focuses on developing the person’s practical skills. (6N5)

Programme considering employment options by the service. (6O2)

Programme supports person to start a small business in a subsidiary role initially but over the years takes on the management and operation of the business (1G1)

Service should provide Leisure/Recreation with support services doing chores, jobs at home (11&12D2)

Service advises individuals into community clubs or facilities by a community member, initially perhaps with service support. (1E1)
Service has some courses to train appropriate occupation to spend their time in the best way. (22-26O1)

Service has recreation activities in its regular programme. (27L1)

Service has vocational training according client abilities. (28M1)

Service teaching skills around actively participating in leisure, vocational and educational activities. Also, service should learn how to do this without relying on support agencies to make connections, identify capacity to participate and teach how to participate. (7C1)

Service considering useful occupation as leisure, recreation, employment or vocational activities. (28M2)

Programme creates an interesting environment for learning and occupation. (6N2)

c. Skills to access community resources

Coded data:
Programme ultimately teaching how to make contribution back to the community would be ideal. (7C2)

Programme provides training and learning opportunities regarding accessing transport, rights and responsibilities with community environments where required. (5G1)

Service trains correct transport and using equipments such as portable ramps, wheelchair, disables car parking. (21I1)

Service training and advising to access and use social facilities and being well involve in community. (27K1)

d. Skills to minimise risk

Coded data:

Service considers social isolation and living alone in the community can often have a disadvantage for some individuals. To prevent it service should encourage people to accommodate with someone else. (16&17F1)

Programme teaches how client accesses the community without succumbing to addictions such as alcohol abuse. (7E3)

Service aware people about community facilities and services to help them in emergency conditions. (22-26V1)

Service gives psychological advice to people about risk positions and control them by their self or helping from other people. (22-26U1)

Programme teaches managing the pitfalls of life. (7E4)

Service has a role for safeguarding against risks that the individual may face within community e.g. access to drugs for person with history of addiction. (5H1)

Programme considering any negative image issues and seek to minimise them. (6H1)

Programme uses positive Language and engaging of others. (6H2)

Programme teaches route finding, orientation, contingencies when things go wrong (train fails to stop etc.) road crossing, bike riding if safe (cost effective but needs lots of skills) travelling on public transport (buy a ticket first!) (7G1)

Service managing risks and founding a balance to allow dignity associated with certain risks. (5T1)

Service avoids harmful risk and experiences to understand persons and their needs. (6U1)

Service seeks to get the person with ABI to identify individual limitations and characteristics that may cause harm. (6U2)

Programme ensuring there are clear policies on abuse. (6W6)

The service ensuring that its practices do not lead or encourage social isolation, exploitation or physical harm to the individual. (6W10)

Programme teaches how to not put oneself at risk physically, financially, emotionally etc. (7E1)

Service teaches how to form relationships with others without being at risk of abuse. (7E2)

Service understanding, training, and preventing risk conditions for service users to improve social safeguard skills. (28N1)

Service aware if the service allows support staff to treat the person as a child or engage in child like activities will provide risk for individual with ABI. (6U3)

Programme meets goals/aspirations, and means of addressing vulnerabilities. (3B1)

e. Financial management skills.

Coded data:
Service should manage self ranging from day to day routine, appointments, prioritising life events and daily obligations, daily finances, paperwork (bills, wills and other documents) and asset management (car service, insurance etc.) (7B1)

Service trains how they can protect and management their money. 22-26T1)

Service has support services/training and specialised services to train drawing money from an ATM and prevent community vulnerability such as physical harm, and cheating (11&12G1)

The service ensuring that the appropriate procedures are in place to minimise the financial risk for the person. (6V1)

The service supports the individual to adequately plan for their current and future financial needs. (6V2)

Service trains financial management to service users. (27N!)

Sub-cluster 6.2
The service enhances knowledge in the community about people with ABI.

Coded data:
Service has a role to educate society to a higher human value and development through its practices. (6I3)

Service has some programmes (community awareness) to increase people knowledge about people with ABI and their needs. We hear often of the number of deaths on the road, but rarely, if ever, of permanent disabilities that are often the resulting from such accidents. In my opinion, most people have no idea whatsoever that head injury can cause terrible long term/permanent disabilities. (16&17C1)

Service involves members of the community in the implementation to give the community a sense of ownership(8C1)

Service connecting and involving with community to inform and improve their knowledge about living in community with people with ABI. (28O1)

Service extends its programmes beyond the individual client to include family members, and others in the social network. Extending also to education of the broader community about brain injury. (2D1)

Service helps individuals with ABI to sort misunderstanding between them and public people. (22-26O1)

Cluster seven: support for service users
Brief description: Providing a range of support to enable service users to and live in the community

Sub-cluster 7.1
The service encourages / promotes the development of occupation, health, education, and social engagement of service users through:

a. Natural support (volunteers, advocates, peers).

Coded data:
Service should recognise that ongoing neurological recovery may still occur, but focused on finding relevant strategies to maximise integration in the short-term. (2E1)

Service has a group of individuals makes a commitment to maintain and develop a supportive network around the person. (1D1)

Service attending different groups of stakeholders as a network support. (28P1)

Service knowing attending students in programme is a very effective way to gain networks, employment and a real life as a support for individual with ABI. (1F1)

The service providing appropriate supports to maximise the social opportunities for the individual. (6S1)

Programme provides small groups and one-to one support enhance the quality of interactions(6L2)

Programme helps to access and being in a group of ABI to get support from each other and exchange their experiences about returning to the right life. (22-26Q1)

Service has staffs or involve family and friends to help people to participate in community and solve their problems with it such as, how reacts/respond to certain ‘communities’, events, environments (and structures for that). (21O1)

Service supporting people through and discomfort associated with consequences of ABI. (5B3)

Service supports individual step by step to find the best way to return to community. (28F1)

Programme supporting, understanding and accepting “Right thing to do” (part of culture) within the service and community. (6I2)

Programme provides supported opportunities to re-connect people to past life experiences (6T2)

Service having real and natural support for service users to make them independent individuals. (28Q1)

b. Specialised support (employment supports, counselling and family interventions, programme management and other special services)

Coded data:
Programme has developed services to promote the persons independence and acceptance. (6K1)

Programme supports ratios are provided which promote and ensure good access and participation in the community. (6E2)

Programme providing appropriate personal aids and equipment and maintain them to a high standard. (6I10)
Programme provides relationship training to support groups (whether paid or unpaid). This may be important to families who are coming to terms with the persons ABI and their potential. (6C4)

Programme supports the person to engage in meaningful activity including opportunities for employment, education and voluntary contributions to community. These need to be closely linked to the person’s interests and aspirations and unique needs and circumstances. (5M1)

Service has co-workers trained to support the person in the workplace so that they can gain and maintain a job. (1B1)

Programme has support staffs and families to identify community access and participation activities. (6F4)

Programme has access to external and special support and advice re personal grooming. (6I7)

Service provides some unpaid facilities for weekend and holidays to carry on the programme for individual. Such as, nurse, carer, and equipments. (21L2)

Programme considering meaningful occupation supports as far as practicable use community services and natural supports. (6O1)

Programme considering appropriate planning supports to ensure successful “pick up life” strategies. (6R4)

Service provides psychological and emotional support for PWABI and recognises them as being an essential part of the persons support regime. (6S3)

Service should review medications regularly. (6W7)

Service should check regularly health conditions of PWABI. (6W8)

Programme should aware and have strategy about barriers to picking up life again such as Language, health condition, medical stuff, inabilities, pessimism, and non verbal functioning/cognitive. (21S1)

Programme establishes some routines for some people to access, and participation which should be factored into the support design. (6G2)

Service has daily constant self care programme to support people with ABI (9A1)

Service prepares support for role transition and adjustment to new identity (10C1)

Service has knowledgeable carers to manage emergency conditions and support individuals with ABI communications. (21L1)

Programme has appropriate trained staff in infection control and safety. (6A6)

Service has access to specialists regarding individual’s disabilities or needs. (28K1)

Service has specialist counseling services to give people an opportunity to talk to someone in confidence to address issues and assist them to go on with their lives. (15E1)
Programme has support staffs or other supporting individuals who may have skills that are beneficial to the personal development of the individual through access to the community. (6G3)

Service has expertise supervisors to control quality of services to residents. (28I1)

Programme has support staffs that have a good knowledge of the characteristics of the individual and have the skills to reduce any adverse impacts to the person or others in relation to behaviour and appearance. (6H7)

Service has regular 24 hours services with qualified staff. (28R1)

Programme has professional support staff that is matched to some social situations to maximise the social experience. E.g. going to the football. (6S2)

Service has occupational therapy or psychology services to help build self esteem and confidence. (11&12F1)

Programme considers returning to a pre-morbidity life can be very difficult, particularly if there has been a personality change. Therefore, in service counseling services should be available for the individuals and their families. Because, effects result of ABI in extremely high levels of stress to all concerned and can become overwhelming as to what the future holds. (16&17E1)

Support has adequate screen to employ expertise staff in service to improve service users' abilities. (6W2)

Service has staff to manage and support of terms of health, medication and comfort conditions of PWABI. (6W3)

Service has trained staffs to aware service users that community integration always is not successful and it depends on many factors to prevent further psychological problem in them. (9C1)

Programme has support staff play key role in ensuring the persons positive imagery. (6I6)

Service has trained support staff to provide maximum interactive opportunities for individual with ABI and consider home activities that center on maintaining the home for PWABI. (6Q7)

Service should have well trained and resourced support personnel (carers/friends/family) with some 'medical' expertise to manage risk conditions and learn individuals and relatives to how control them. (21T1)

Programme should have good professional team to talk and listen to the person to provide support for them. (22-26S1)

c. Staff have certain positive personal qualities.

Coded data:
Programme has good role models which are sought and used appropriately for the person and those supporting the individual. (6H3)

Service has knowledgeable staff with positive attitude to the individuals' abilities. (6L3)

Service has staff practiced support an enriched life experience for the person with an ABI. (6K6)

Programme employed support staffs according to their personal qualities; to suit match the persons needs; and ability to work in flexible positions(6L4)

Programme provides effective working relationship between client and service provider. (18D1)

Appendix L

The fourth step results including seven clusters and 26 sub-clusters

Cluster one: Working together

BRIEF DESCRIPTION: The service involves and works with a range of relevant stakeholders including family, friends of service users, staff, community resources, and advocacy groups in order to enhance community integration.

Sub-cluster 1.1: The service works closely with family and friends of service users.

Sub-cluster 1.2: The service staff work as a team.

Sub-cluster 1.3: The service accesses and works collaboratively with community services.

Sub-cluster 1.4: The service works cooperatively with advocacy groups.

Cluster two: Relationships

BRIEF DESCRIPTION: The service is aware of and understands the importance of relationships. It works to support and develop existing and new relationships. Real opportunities are provided to develop relationship roles in different areas such as work, education, and recreation.

Sub-cluster 2.1: The service is aware and understands the importance of a range of relationships in the lives of service users.

Sub-cluster 2.2: The service develops and supports existing and new relationships.

Sub-cluster 2.3: The service works to provide real opportunities for relationship roles to develop in areas such as work, education, and recreation.

Cluster three: Person centred approaches and planning

BRIEF DESCRIPTION: The service knows its service users very well and responds to their strengths and preferences in a highly individual way. Programmes are planned based on each service user’s needs and aspirations.

Sub-cluster 3.1: The service knows its service users very well.

Sub-cluster 3.2: The service focuses on residents’ strengths and abilities rather than disabilities.

Sub-cluster 3.3: The service plans and provides programmes based on each individual service user.

Sub-cluster 3.4: The service closely follows the needs, aspirations, and preferences of the service users.

Cluster four: Service environment, culture, and atmosphere

BRIEF DESCRIPTION: The service is provided in a comfortable, welcoming, friendly, and home-like atmosphere. Service users are treated with consideration and respect. The service is accessible for all stakeholders.

Sub-cluster 4.1: The service setting is comfortable and home-like.

Sub-cluster 4.2: The service is accessible for people with acquired brain injury and other stakeholders.

Sub-cluster 4.3: The service atmosphere is friendly, welcoming, and respectful.

Cluster five: Community based practices

BRIEF DESCRIPTION: Many service practices are based in the community. The service has developed linkages and networks with the community that promote independent living for service users.

Sub-cluster 5.1: The service practices are located in community settings.

Sub-cluster 5.2: The service has well-developed linkages and networks with community resources.

Sub-cluster 5.3: The service promotes independent living in the community.

Cluster six: Development of skills

BRIEF DESCRIPTION: The service focuses on the development of individual skills and abilities that facilitate community integration. These include encouraging and developing social skills, occupational skills, skills to access community resources, and skills to minimise risk. The service works to increase knowledge in the community about people with acquired brain injury.

Sub-cluster 6.1: The service encourages and provides opportunities for the development of *Social skills.*

Sub-cluster 6.2: The service encourages and provides opportunities for the development of *Occupational skills.*

Sub-cluster 6.3: The service encourages and provides opportunities for the development of *Skills to access community resources.*

Sub-cluster 6.4: The service encourages and provides opportunities for the development of *Skills to minimise risk.*

Sub-cluster 6.5: The service encourages and provides opportunities for the development of *Financial management skills.*

Sub-cluster 6.6: The service enhances knowledge in the community about people with ABI.

Cluster seven: Support for service users

BRIEF DESCRIPTION: The service promotes a range of support people to enable service users to live in the community. Staff employed by the service have skills and personal qualities that are appropriate for working with service users.

Sub-cluster 7.1: The service promotes the development of occupation, health, education, and social engagement of service users through natural support such as volunteers, advocates, and peers.

Sub-cluster 7.2: The service provides appropriate specialist support to promote community integration such as employment support, counselling and family interventions, and clinical services.

Sub-cluster 7.3: The service employs staff who have a positive mix of skills, experiences, and personal qualities.

Appendix M

Introductory letter

- For participants used internet

Evidence-based Evaluation of Programme Interventions to Achieve Positive Community Integration Outcomes for Adults with Acquired Brain Injury

Ranking the importance of the Themes and Attributes

Dear ,

Thank you very much for continuing participation in this project. We greatly appreciate the important contribution you have made so far.

Following the first survey, we have prepared a list of Themes and Attributes based on what stakeholders said were important characteristics of programmes in the achievement of community integration for people with acquired brain injury. In this survey, we want to identify participants' opinions on the relative importance of those programme characteristics. This will enable us to take into account the importance of each Theme and Attribute in the development of the final framework.

There are two tasks to complete with this survey.

1. ***Rank the Themes in order of importance.***
   There are 7 themes which are not presented in any particular order. Look over each Theme and its brief description (ignore the Attributes for now). Please allocate a number from 1(the highest importance) to 7(the lowest importance) to indicate the importance of each Theme in the space provided beside the name of the Theme. For example: if you think that *Theme 2: Relationships* is the most important theme, then put number '1' next to it in the space provided.
2. ***Rank the Attributes within each Theme in order of importance.*** Each Theme has a small set of Attributes, or key characteristics. Please allocate a number to indicate your opinion of each Attribute from the highest to lowest importance. For example: *Theme 2: Relationships* has three Attributes, hence you would rank these

from 1(highest importance) to 3(lowest importance). Please note that each Attribute is ranked within its Theme.

We appreciate that you are putting considerable time into this survey. We are sure that this feedback will contribute to the development of an important and useful resource. Thanks again.

If you have any questions, you are welcome to contact us on:
PhD Candidate Shahriar Parvaneh on (08) 92661789
Email: Shahriar.parvaneh@postgrad.curtin.edu.au
Professor Errol Cocks on (08) 92663659
Email: e.cocks@curtin.edu.au

- For participants attended the interview

Evidence-based Evaluation of Programme Interventions to Achieve Positive Community Integration Outcomes for Adults with Acquired Brain Injury

Ranking the importance of the Themes and Attributes

Dear ,

Thank you very much for continuing participation in this project. We greatly appreciate the important contribution you have made so far.

Following the first survey, we have prepared a list of Themes and Attributes based on what stakeholders said were important characteristics of programmes in the achievement of community integration for people with acquired brain injury. In this survey, we want to identify participants' opinions on the relative importance of those programme characteristics. This will enable us to take into account the importance of each Theme and Attribute in the development of the final framework.

There are two tasks in the interview meeting to complete the survey.

3. ***Rank the Themes in order of importance.***
   There are 7 themes which are not presented in any particular order. Look over each Theme and its brief description (ignore the Attributes for now). Please allocate a number from <u>1(the highest importance)</u> to <u>7(the lowest importance)</u> to indicate the importance of each Theme in the space provided beside the name of the Theme. For example: if you think that *Theme 2: Relationships* is <u>the most important</u> theme, then put number '1' next to it in the space provided.
4. ***Rank the Attributes within each Theme in order of importance.*** Each Theme has a small set of Attributes, or key characteristics. Please allocate a number to indicate your opinion of each Attribute from the highest to lowest importance. For example: *Theme 2: Relationships* has three Attributes, hence you would rank these from <u>1(highest importance)</u> to <u>3(lowest importance)</u>. Please note that each Attribute is ranked within its Theme.

You are invited to attend an individual interview to help us with completing the survey. The interview will be organised by Head West in the next few weeks. In preparation for the meeting, please spend sometime thinking of how to priorities the Themes and Sub themes.

We appreciate that you are putting considerable time into this survey. We are sure that this feedback will contribute to the development of an important and useful resource. Thanks again.

If you have any questions, you are welcome to contact us on:
PhD Candidate Shahriar Parvaneh on (08) 92661789
Email: Shahriar.parvaneh@postgrad.curtin.edu.au
Professor Errol Cocks on (08) 92663659
Email: e.cocks@curtin.edu.au

Appendix N

Phase two-Survey form for the second stage

The importance of Themes and Subthemes for community integration
RANKING

Part one
Ranking of Themes from 1(highest importance) to 7 (lowest importance)

Theme one: Working together ***Relative importance (1-7):*** ______________

BRIEF DESCRIPTION: The service involves and works with a range of relevant stakeholders including family, friends of service users, staff, community resources, and advocacy groups in order to enhance community integration.

Theme two: Relationships ***Relative importance (1-7):*** ____________

BRIEF DESCRIPTION: The service is aware of and understands the importance of relationships. It works to support and develop existing and new relationships. Real opportunities are provided to develop relationship roles in different areas such as work, education, and recreation.

Theme three: Person centred approaches and planning

Relative importance (1-7): ______________

BRIEF DESCRIPTION: The service knows its service users very well and responds to their strengths and preferences in a highly individual way. Programmes are planned based on each service user's needs and aspirations.

Theme four: Service environment, culture, and atmosphere

Relative importance (1-7): ______________

BRIEF DESCRIPTION: The service is provided in a comfortable, welcoming, friendly, and home-like atmosphere. Service users are treated with consideration and respect. The service is accessible for all stakeholders.

Theme five: Community based practices

Relative importance (1-7): ______________

BRIEF DESCRIPTION: Many service practices are based in the community. The service has developed linkages and networks with the community that promote independent living for service users.

Theme six: Development of skills ***Relative importance (1-7):*** ______________

BRIEF DESCRIPTION: The service focuses on the development of individual skills and abilities that facilitate community integration. These include encouraging and developing social skills, occupational skills, skills to access community resources, and skills to minimise risk. The service works to increase knowledge in the community about people with acquired brain injury.

Theme seven: Support for service users

Relative importance (1-7): ______________

BRIEF DESCRIPTION: The service promotes a range of support people to enable service users to live in the community. Staff employed by the service have skills and personal qualities that are appropriate for working with service users.

Part two

Ranking of Sub-Themes from highest importance to lowest importance based on the numbers in the brackets in the tables

Theme one: Working together

BRIEF DESCRIPTION: The service involves and works with a range of relevant stakeholders including family, friends of service users, staff, community resources, and advocacy groups in order to enhance community integration.

Sub-themes	***Relative importance (1-4)***
The service works closely with family and friends of service users.	
The service staff work as a team.	
The service accesses and works collaboratively with community services.	
The service works cooperatively with advocacy groups.	

Theme two: Relationships

BRIEF DESCRIPTION: The service is aware of and understands the importance of relationships. It works to support and develop existing and new relationships. Real opportunities are provided to develop relationship roles in different areas such as work, education, and recreation.

Sub-themes	***Relative importance (1-3)***
The service is aware and understands the importance of a range of relationships in the lives of service users.	
The service develops and supports existing and new relationships.	
The service works to provide real opportunities for relationship roles to develop in areas such as work, education, and recreation.	

Theme three: Person centred approaches and planning

BRIEF DESCRIPTION: The service knows its service users very well and responds to their strengths and preferences in a highly individual way. Programmes are planned based on each service user's needs and aspirations.

Sub-themes	***Relative importance (1-4)***
The service focuses on residents' strengths and abilities rather than disabilities.	
The service plans and provides programmes based on each individual service user.	
The service closely follows the needs, aspirations, and preferences of the service users.	

Theme four: Service environment, culture, and atmosphere

BRIEF DESCRIPTION: The service is provided in a comfortable, welcoming, friendly, and home-like atmosphere. Service users are treated with consideration and respect. The service is accessible for all stakeholders.

Sub-themes	***Relative importance (1-3)***
The service setting is comfortable and home-like.	
The service is accessible for people with acquired brain injury and other stakeholders.	
The service atmosphere is friendly, welcoming, and respectful.	

Theme five: Community based practices

BRIEF DESCRIPTION: Many service practices are based in the community. The service has developed linkages and networks with the community that promote independent living for service users.

Sub-themes	***Relative importance (1-3)***
The service practices are located in community settings.	
The service has well-developed linkages and networks with community resources.	
The service promotes independent living in the community.	

Theme six: Development of skills

BRIEF DESCRIPTION: The service focuses on the development of individual skills and abilities that facilitate community integration. These include encouraging and developing social skills, occupational skills, skills to access community resources, and skills to minimise risk. The service works to increase knowledge in the community about people with acquired brain injury.

Sub-themes	***Relative importance (1-6)***
The service encourages and provides opportunities for the development of *Social skills.*	
The service encourages and provides opportunities for the development of *Occupational skills.*	
The service encourages and provides opportunities for the development of *Skills to access community resources.*	
The service encourages and provides opportunities for the development of *Skills to minimise risk.*	
The service encourages and provides opportunities for the development of *Financial management skills.*	
The service enhances knowledge in the community about people with ABI.	

Theme seven: Support for service users

BRIEF DESCRIPTION: The service promotes a range of support people to enable service users to live in the community. Staff employed by the service have skills and personal qualities that are appropriate for working with service users.

Sub-themes	***Relative importance (1-3)***
The service promotes the development of occupation, health, education, and social engagement of service users through natural support such as volunteers, advocates, and peers.	

The service provides appropriate specialist support to promote community integration such as employment support, counselling and family interventions, and clinical services.	
The service employs staff who have a positive mix of skills, experiences, and personal qualities.	

Thank you for your assistance.

This study has been approved by the Curtin University of Technology Human Research Ethics Committee. If needed verification can be obtained either by writing to the Curtin University of Technology Human Research Ethics Committee, C/-office of Research and Development, Curtin University of Technology, GPO Box U1987, Perth WA 6845 or by telephoning (08) 92662784. hrec@curtin.edu.au

Appendix O

Cards used for interview

Working together
BRIEF DESCRIPTION: The service involves and works with a range of relevant stakeholders including family, friends of service users, staff, community resources, and advocacy groups in order to enhance community integration.

The service works closely with family and friends of service users.

The service staff work as a team.

The service accesses and works collaboratively with community services.

The service works cooperatively with advocacy groups.

Relationships
BRIEF DESCRIPTION: The service is aware of and understands the importance of relationships. It works to support and develop existing and new relationships. Real opportunities are provided to develop relationship roles in different areas such as work, education, and recreation.

The service is aware and understands the importance of a range of relationships in the lives of service users.

The service develops and supports existing and new relationships.

The service works to provide real opportunities for relationship roles to develop in areas such as work, education, and recreation.

Person centred approaches and planning
BRIEF DESCRIPTION: The service knows its service users very well and responds to their strengths and preferences in a highly individual way. Programmes are planned based on each service user’s needs and aspirations.

The service knows its service users very well.

The service focuses on residents’ strengths and abilities rather than disabilities.

The service plans and provides programmes based on each individual service user.

The service closely follows the needs, aspirations, and preferences of the service users.

Service environment, culture, and atmosphere

BRIEF DESCRIPTION: The service is provided in a comfortable, welcoming, friendly, and home-like atmosphere. Service users are treated with consideration and respect. The service is accessible for all stakeholders.

The service setting is comfortable and home-like.

The service is accessible for people with acquired brain injury and other stakeholders.

The service atmosphere is friendly, welcoming, and respectful.

Community based practices

BRIEF DESCRIPTION: Many service practices are based in the community. The service has developed linkages and networks with the community that promote independent living for service users.

The service practices are located in community settings.

The service has well-developed linkages and networks with community resources.

The service promotes independent living in the community.

Development of skills

BRIEF DESCRIPTION: The service focuses on the development of individual skills and abilities that facilitate community integration. These include encouraging and developing social skills, occupational skills, skills to access community resources, and skills to minimise risk. The service works to increase knowledge in the community about people with acquired brain injury.

The service encourages and provides opportunities for the development of Social skills.

The service encourages and provides opportunities for the development of Occupational skills.

The service encourages and provides opportunities for the development of Skills to access community resources.

The service encourages and provides opportunities for the development of Skills to minimise risk.

The service encourages and provides opportunities for the development of Financial management skills.

The service enhances knowledge in the community about people with ABI.

Support for service users
BRIEF DESCRIPTION: The service promotes a range of support people to enable service users to live in the community. Staff employed by the service have skills and personal qualities that are appropriate for working with service users.

The service promotes the development of occupation, health, education, and social engagement of service users through natural support such as volunteers, advocates, and peers.

The service provides appropriate specialist support to promote community integration such as employment support, counselling and family interventions, and clinical services.

The service employs staff who have a positive mix of skills, experiences, and personal qualities.

Appendix P

Phase two-Introductory letter to start the third stage

Evidence-based Evaluation of Programme Interventions to Achieve Positive Community Integration Outcomes for Adults with Acquired Brain Injury

Information for the working group's planning day

Details

The purpose of this day is to work on the framework arising from the ABI project with a view to developing an evaluation tool for community integration programmes for adults with acquired brain injury evaluation. The framework consists of a set of seven clusters which convey what participants in the research project believed to be the most important characteristics of community integration programmes for adults with ABI. Each cluster has a brief description, which is then broken down as a set of sub-clusters.

The day's work will focus on two areas:

- Development of *attributes*. We need to identify specific programme indicators (such as policies, procedures, and practices), that reflect each attribute. For example, for the first sub-cluster of cluster one (Working together), what aspects of a programme would indicate that it involves and works with a range of relevant stakeholders including family, friends of service users, staff, community resources, and advocacy groups in order to enhance community integration? The purpose of indicators is to guide evaluators in what to look for in weighing up a programme's performance on each attribute.

When these tasks have been completed, the first version of the tool will be in place, ready for trialling and fine-tuning.

It will be helpful if each of us can prepare by familiarising ourselves with the framework which is in the attached file and in particular to think about specific indicators for each of the attributes.

Thank you

Appendix Q

Phase two-Themes, descriptors, attributes, indicators and sources of evidence resulting from the third stage

Theme one: Person centred approaches and planning

BRIEF DESCRIPTION: The service knows its service users very well and responds to their strengths and preferences in a highly individual way. Programmes are planned based on each service user's needs and aspirations.

Attribute 1.1

The service plans and provides programmes based on each individual service user.

INDICATORS:

- Each service user has a structured plan that is individual and clearly linked to the identification of service user needs, strengths, and preferences.

- Plans and programmes have clear objectives and assessable outcomes that are consistent with the identified needs of the individual service user.

- The plan is developed collaboratively with staff, the service user, and other people who have a legitimate interest. People who are close to the service user will participate in planning processes if agreed by service users, particularly if the service user requires that participation because of limited capacity.

- The plan is documented and accessible to relevant stakeholders.

- The plan is monitored and reviewed regularly in a process that is transparent and accessible to the service user.

- If service programmes are provided for groups of service users, the rationales for this are clear and aligned with the needs of individual service users. Grouping practices are not determined by the needs of the system.

SOURCES OF EVIDENCE

1. **Do individual service users have a structured plan that is clearly linked to the identification of needs, strengths, and preferences?**
2. **Do plans have clear objectives and assessable outcomes?**
3. **Are plans developed collaboratively?**
4. **Does the service support the involvement of other people in the planning process?**
5. **How is the service plan documented and made accessible?**
6. **Is the service plan monitored and reviewed regularly?**
7. **Are service programmes provided for groups of service users? If so, what rationales are provided for grouping?**

Attribute 1.2

The service focuses on service users' strengths and abilities rather than their disabilities.

INDICATORS:

- The service has high and realistic expectations for service users. Service users are spoken about with respect and acknowledgment of their achievements.

- The regular assessment processes used by the service include the identification of service users' abilities, strengths, and capacities, as well as disabilities.

- There is clear understanding of the importance and benefits of recognising and acting on the strengths of service users. This includes the positive impact on their self esteem and reputation. Achievements are recognised and celebrated.

- The service takes time to understand service users.

SOURCES OF EVIDENCE

1. **What expectations about service users are held by the service?**
2. **How does the service see the capacities of service users? What balance is there between strengths and impairments?**
3. **How do assessment processes identify service users' abilities?**
4. **How much time does the service take to understand service users in depth?**

Attribute 1.3

The service closely follows the needs, aspirations, and preferences of the service user.

INDICATORS:

- Documents that describe the service policies and practices clearly identify the priority of addressing the needs, aspirations, and preferences of individual service users.

- The service setting reflects as much as possible the preferences, choices, and identity of individual service users, particularly those settings in which service users spend considerable time such as residential settings. The service willingly adapts its setting, routines, activities, and processes in order more clearly to reflect the needs and preferences of service users.

- Regular feedback on the service is sought in appropriate ways from service users and people close to them. The service is responsive to this feedback and acts upon it.
- There is evidence that the service expects service users' needs and aspirations to change and responds with flexibility.

SOURCES OF EVIDENCE

1. **Do service policies and practices documents give priority to the needs, aspirations, and preferences of individual service users?**
2. **How does the service setting reflect the preferences, choices, and identity of individual service users?**
3. **Does the service seek regular feedback? Does the service act upon the feedback?**
4. **How does the service respond to changing needs and aspirations of service users?**

Attribute 1.4

The service knows its service users very well.

INDICATORS:

- Service policies and practices reflect the focus on the whole person and also close personal knowledge of service users.

- Service staff know relevant and important factual information about service users.

- Service staff know and understand the relevant life experiences of service users. They know the person as well as "about" the person.

- As appropriate in the rehabilitation setting, staff know the needs, preferences, and aspirations of service users and act upon them in the service context.

SOURCES OF EVIDENCE

1. **Do service policies emphasise the importance of a focus on the whole person?**
2. **What information is known about service users and how is this information maintained and conveyed?**
3. **Do service staff know service users both factually and according to their life experiences?**
4. **How do the needs, preferences, and aspirations of service users influence the responses of the service staff?**

Theme two: Working together

BRIEF DESCRIPTION: The service involves and works with a range of relevant stakeholders including the service user, family, friends of service users, staff, community resources, and advocacy groups in order to enhance community integration. The service works to increase knowledge in the community about people with acquired brain injury.

Attribute 2.1

The service works closely with the service user, family, and friends.

INDICATORS:

- The service has documented policies and processes in place that establish the importance and priority of working together with service users, family, and friends. The service aims for cooperation and partnership between stakeholders from the beginning of the programme.

- The involvement of this group of stakeholders is obvious, clear, and tailored to their particular roles.

- They have appropriate access to information regarding the service and its programmes within the bounds of privacy and confidentiality. The requests of the service user are followed in this regard.

- The service communicates regularly and effectively with these stakeholders, using a variety of means.

- Where necessary, the service works to re-engage family and friends in the rehabilitation process.

- The service works constructively with the different perspectives of stakeholders, reconciling them where possible, and giving priority to the service user’s perspective.

SOURCES OF EVIDENCE

1. **How do service documents that describe policies and processes address the importance and priority of working together with the stakeholder groups?**

2. **How does the involvement in the service of different stakeholders such as family and friends reflect their particular roles in the lives of stakeholders? Is this confirmed by interviews and observation?**

3. **What information about the service is available and to whom?**

4. **How does the service communicate with its key stakeholders?**

5. **How does the service work to re-engage family and friends in the rehabilitation process?**

6. **How does the service address the differing perspectives of stakeholders? Is priority given to service users’ perspectives?**

Attribute 2.2

The service staff work as a team.

INDICATORS:

- Service staff work across disciplines appropriately, according to defined and documented agreed goals for service users.

- The programmes are driven by goals with clear and realistic timelines for service users and are not constrained by disciplinary orientations.

- Teams meet regularly in a climate of openness, cooperation, and rigour.

- Teams are inclusive of all appropriate staff groups including management.

- All team members are involved in important decisions regarding programmes.

- Teams contribute to service changes and developments.

- Team processes, assessments, and decisions are documented and accessible to all team members. Reports are prepared jointly by team members.

SOURCES OF EVIDENCE

1. **Are service goals for service users documented with clear goals, activities, and timelines?**
2. **How is the goal-setting process achieved? How are team meetings carried out? How is the decision-making process managed?**
3. **How do various disciplines operate within the team process? Are goals determined in a shared manner?**
4. **How is management involved in team processes?**
5. **How do teams contribute to wider service changes and developments?**
6. **How are reports from teams developed? To what extent are they accessible within and outside the service?**

Attribute 2.3

The service accesses, and works collaboratively with, community services.

INDICATORS:

- The service has a clear idea of the role of community in rehabilitation and of its own role within the community.

- The service has identified relevant community services and has established cooperative relationships with those services. There is an extensive network of community services.

- A bridge is provided by the service between clients and relevant community services that enables service users to access those services appropriately. The community services reflect the needs and preferences of service users.

- The service communicates appropriately with community services about service users.

- Some joint initiatives occur between the service and the community.

SOURCES OF EVIDENCE

1. **How does the service describe and justify its approach to working with community services?**

2. **What relevant community services have been identified and what is the nature of the relationships developed with them by the service?**
3. **How does the service connect service users with community services?**
4. **How does the service communicate with community services about service users?**
5. **What joint activities occur between the service and community services?**

Attribute 2.4

The service works cooperatively with advocacy groups.

INDICATORS:

- The service is aware of various advocacy groups, their roles, and the issues they address, including individual advocacy, systemic advocacy, and self-advocacy.

- Ongoing communication occurs between the service and relevant advocacy groups within a spirit of cooperation.

- The service is supportive of service user access to, and involvement with, advocacy activities.

- The service actively seeks advocacy support for some service users.

SOURCES OF EVIDENCE

1. **With which advocacy groups does the service have relationships? What kinds of relationships occur and how does communication happen between the service and these groups?**
2. **Does the service have an understanding of the different purposes and roles of advocacy?**
3. **How does the service support the involvement of service users in advocacy activities?**

Attribute 2.5

The service enhances knowledge in the community about people with ABI.

INDICATORS:

- The service uses a variety of means to inform family, friends, and other interested people about acquired brain injury.

- The service has identified relevant community groups and organisations. Neighbours, people living in proximity to the service, and relevant local services are aware of the service and its role in the rehabilitation of people with acquired brain injury.

- The service works with media to enhance knowledge in the community about acquired brain injury.

- The service sensitively conveys the particular needs of people with acquired brain injury whilst also ensuring a positive image is maintained.

SOURCES OF EVIDENCE

1. **How does the service inform people about acquired brain injury?**
2. **Are people and agencies in the surrounding neighbourhood aware of the service and its roles? Does the service engage in awareness-raising activities in the locality?**
3. **How does the service use the media to increase knowledge about acquired brain injury?**
4. **What images are conveyed by the service in its community education activities? Is the service aware of the importance of positive images?**

Theme three: Relationships

BRIEF DESCRIPTION: The service is aware of and understands the importance of relationships. It works to support and develop existing and new relationships. Real opportunities are provided to develop relationship roles in different areas such as work, education, and recreation.

Attribute 3.1

The service is aware and understands the importance of a range of relationships in the lives of service users.

INDICATORS:

- The importance of relationships in the lives of service users is clearly understood by the service and is embedded within the service policies and programmes. The role of relationships as part of the process of rehabilitation and living in the community is clearly understood.

- The service encourages and supports a wide range of relationships between service users and other people.

- Staff members are aware of the importance of relationships for service users. Staff may be provided with training relevant to relationship support and development. Training may include understanding and responding to the risks and vulnerabilities of some service users.

- Positive relationships between staff and service users are encouraged.

SOURCES OF EVIDENCE

1. **How do the service policies and practices address the importance of relationships?**
2. **Do service users have a range of relationships? How does the service encourage and support these?**
3. **What training and preparation do service staff receive about the importance of relationships for service users?**

Attribute 3.2
The service facilitates and supports existing and new relationships.

INDICATORS:

- The service staff members know and are sensitive to the relationship history of service users and work to maintain previous and existing relationships. They acknowledge the importance of supporting service user relationships as an important aspect of their roles.

- The service assesses and documents relationship issues and changes for the service users.

- Communication and spending time together is encouraged between service users and friends and family. The service works to rebuild relationships when appropriate.

- The service facilitates relationships between service users.

- Opportunities and practical support are provided for the development of new relationships. Common interests between service users and other people are encouraged as a basis for the development of relationships. New roles in the community, family, and friendship network are encouraged.

- Service users are provided with advice and counselling regarding relationship issues. The service provides support in the event of difficult relationships. If necessary, independent advice and support is provided.

SOURCES OF EVIDENCE

1. **What do the service staff members know about the relationship history of service users? Is attention paid to supporting previous and existing relationshps? How do staff see their roles in supporting relationships?**
2. **What assessment and documentation of relationship issues and changes for the service users occurs within the service?**
3. **Does the service encourage and support service users, friends and family spending itme together?**
4. **Does the service facilitate relationships between service users?**
5. **How does the service encourage the development of new relationships for service users?**
6. **Does the service provide advice and counselling regarding relationship issues?**

Attribute 3.3

The service works to provide real opportunities for relationships to develop in areas such as work, education, and recreation.

INDICATORS:

- The service acknowledges the important connections between the range of valued roles associated with lifestyle activities such as work, education, and recreation, and the development and maintenance of relationships.

- The needs, preferences, and history of service users in lifestyle activities are well known and used constructively to facilitate relationships. The service provides support, advice, and encouragement so that service users can participate in lifestyle activities. If necessary, this support may be long-term and may include education/training.

- The service will work cooperatively with other agencies such as employers or educational settings to facilitate relationships. It will be careful not to be too intrusive and be mindful of issues of privacy and confidentiality. It will seek information and feedback from the other agencies regarding any relevant issues. The service will incorporate this information into its plans.

SOURCES OF EVIDENCE

1. **How does the service use lifestyle activities such as work, education, and recreation to develop and maintain relationships?**
2. **How does the service use knowledge about needs, preferences, and the history of service users to promote lifestyle activities and facilitate relationships?**
3. **Does the service work cooperatively with other agencies such as employers or educational settings to facilitate relationships?**
4. **Does the service respect privacy and confidentiality?**

Theme four: Service setting and atmosphere

BRIEF DESCRIPTION: The service is provided in a comfortable, welcoming, and friendly manner. Service users are treated with consideration and respect. The service is accessible for all stakeholders.

Attribute 4.1

The service is accessible for service users and other stakeholders

INDICATORS:

- Accessibility refers to a wide range of characteristics of the service, each of which can be used by service users and other stakeholders as appropriate. The service monitors issues of accessibility and ensures access is maintained.

- The service setting is physically accessible for all people.

- Areas within the service setting are freely accessible unless there is an appropriate rationale for limiting access.

- Service users have appropriate access to the tools, equipment, telephone, media, etc in the service setting.

- Visitors to the service setting have easy access with public transport, parking, pathways, etc.

SOURCES OF EVIDENCE

1. **Which aspects of the service are accessible and which are not?**
2. **Is the service aware of accessibility difficulties?**
3. **How does the service respond to accessibility difficulties?**

Attribute 4.2

The service atmosphere is friendly, comfortable, welcoming, and respectful

INDICATORS:

- There is a friendly, respectful relationship between service users and staff.

- Visitors are made to feel welcome.

- Staff members are encouraged to promote a friendly and welcoming atmosphere, and the service monitors this.

- Service policy and practices reflect understanding and sensitivity to cultural issues.

- The service seeks service users' feedback about the atmosphere provided in the service.

SOURCES OF EVIDENCE

1. **What is observed and experienced about the service atmosphere in:**
    a. **Service user to service user interactions;**
    b. **Service user to staff interactions;**
    c. **Staff to staff interactions;**
    d. **Visitors to service users interactions; and**
    e. **Visitors to staff interactions.**
2. **How does the service encourage and monitor staff members to promote a friendly and welcoming atmosphere in the service?**
3. **How does the service policy and practices reflect understanding and sensitivity to cultural issues?**
4. **Does the service seek service users' feedback about the atmosphere provided in the service?**

Attribute 4.3

The service setting is appropriate to the service purpose

INDICATORS:

- The service setting should be identified and observed.

- The service purpose is clearly identified and is determined by the needs of service users and the stated purpose of the service. It could include aspects of rehabilitation, providing a home, employment, recreation, and education.

- The appropriateness of the setting is determined by the extent to which the setting fits with the service purpose. For example, a home or residential setting has the essential characteristics of a home or residential setting.

SOURCES OF EVIDENCE

1. **What is the service setting?**
2. **What is the stated service purpose? How is the purpose related to the needs of service users?**
3. **Which aspects of the service setting fit with the service purpose?**

Theme five: Development of skills

BRIEF DESCRIPTION: The service focuses on the development of individual skills and abilities that facilitate community integration. These include encouraging and developing social skills, occupational skills, skills to access community resources, and skills to minimise risk.

Attribute 5.1

The service provides opportunities for the development of skills that are relevant to the needs of service users that contribute to community integration.

INDICATORS:

- Service practices in skills development are based on person-centred plans that identify specific skills for each service user. The plans incorporate clear goals and programmes to develop skills. Outcomes are monitored and fed back into the planning and programmes.

- Specific skill areas that contribute to community integration are identified, articulated, and incorporated into planning and programmes.

- Skill areas may include:
  - ✓ Occupational skills which lead to employment, contribute to leisure and recreation, support specific interests of service users, etc.
  - ✓ Skills that facilitate community access.
  - ✓ Skills to deal with risk in the community.
  - ✓ Financial management skills.
  - ✓ Social skill.
  - ✓ Others

SOURCES OF EVIDENCE

1. **How do service plans incorporate the development of specific skills in service users?**
2. **Do service plans incorporate clear goals and programmes aimed to develop skills?**

3. **What specific skill areas are incorporated into service programmes?**

Theme six: Support for service users

BRIEF DESCRIPTION: The service promotes the involvement of a range of support people and assistive technology to enable service users to live in the community. Staff employed by the service have skills and personal qualities that are appropriate for working with service users.

Attribute 6.1

The service ensures that staff have an appropriate mix of skills, experiences, and personal qualities.

INDICATORS:

- The service has a documented strategy in recruitment of staff that ensures an appropriate mix of specialist skills that are relevant to the service purpose and the needs of service users.

- Criteria for staff selection reflect relevant training and experience.

- Criteria for staff selection reflect appropriate qualities desired in staff including those that are consistent with the objective of community integration for service users.

- Staff performance is regularly evaluated through a clear policy of assessment and management of staff.

- The service policy identifies staff training needs and relevant training opportunities are provided.

- The number and mix of staff in the service are adequate to the service purpose.

SOURCES OF EVIDENCE

1. **What is the mix of specialist skills in the service staff?**
2. **Does the service have a clear policy for maintaining an appropriate mix of staff skills?**
3. **What are the service criteria for staff selection?**
4. **How does the service regularly evaluate staff performance?**
5. **How does the service policy identify, and provide staff training needs and relevant training opportunities?**

Attribute 6.2

The service provides appropriate specialist support including assistive technology to promote community integration such as employment support, counselling and family intervention, and clinical service.

INDICATORS:

- Service user plans identify the specific specialist support required by each service user.

- Specialist support is provided directly by the service or mediated by referral to other services. The service maintains an ongoing interest in that mediated support.

SOURCES OF EVIDENCE

1. **What specialist support is provided by the service? Is this clearly related to the needs of service users? Is specialist support incorporated into service plans?**
2. **Does the service mediate services? Does the service monitor mediated services?**

Attribute 6.3

The service promotes the development of service users through natural support such as volunteers, advocates, and peers.

INDICATORS:

- The service understands the important role of natural support for service users in enhancing community integration.

- Service user plans include consideration of the involvement of natural support and the service encourages and facilitates this involvement.

- The natural support is provided based on service users needs and desires

SOURCES OF EVIDENCE

1. **How is the importance of the role of natural support for service users in enhancing community integration reflected in service policies and practices?**
2. **How are natural supports included in service user plans?**
3. **How are the needs and wishes of services users linked to the use of natural support?**

Theme seven: Community based practices

BRIEF DESCRIPTION: Many service practices are based in typical community settings. The service has developed linkages and networks with the community that promote independent living for service users.

Attribute 7.1

Service practices are located in typical community settings

INDICATORS:

- The service understands the importance of locating appropriate service practices in typical community settings as a strategy to enhance community integration.

- The service identifies specific activities and opportunities in the community.

- Service users are supported to participate in typical community settings and this is reflected in documented service plans for individual service users.

SOURCES OF EVIDENCE

1. **How does the service show the importance of locating service practices in community settings?**
2. **What specific activities and opportunities in the community have been identified by the service?**
3. **How are service users supported to participate in typical community settings? Is this reflected in documented service plans for individual service users?**

Attribute 7.2

The service has well-developed linkages and networks with community resources

INDICATORS:

- The service has examined and evaluated mainstream community resources that can be useful for service users in the rehabilitation process.

- The service has actively developed linkages with those resources and this is reflected in successful working relationships.

SOURCES OF EVIDENCE

1. **What mainstream community resources have been identified and evaluated by the service?**
2. **What linkages and successful working relationships with community resources have been developed?**

Appendix R

Programme Assessment of Community Integration Attributes (PACIA)

The Programme Assessment of Community Integration Attributes (PACIA)

Themes, Attributes, and Source of Evidence

THEMES

Theme one: Person centred approaches and planning
BRIEF DESCRIPTION: The service knows its service users very well and responds to their strengths and preferences in a highly individual way. Programmes are planned based on each service user's needs and aspirations.

Theme two: Relationships
BRIEF DESCRIPTION: The service is aware of and understands the importance of relationships. It works to support and develop existing and new relationships. Real opportunities are provided to develop relationship roles in different areas such as work, education, and recreation.

Theme three: Working together
BRIEF DESCRIPTION: The service involves and works with a range of relevant stakeholders including the service user, family, friends of service users, staff, community resources, and advocacy groups in order to enhance community integration. The service works to increase knowledge in the community about people with acquired brain injury.

Theme four: Development of skills
BRIEF DESCRIPTION: The service focuses on the development of individual skills and abilities that facilitate community integration. These include encouraging and developing social skills, occupational skills, skills to access community resources, and skills to minimise risk.

Theme five: Community based practices
BRIEF DESCRIPTION: Many service practices are based in typical community settings. The service has developed linkages and networks with the community that promote independent living for service users.

Theme six: Support for service users
BRIEF DESCRIPTION: The service promotes the involvement of a range of support people and assistive technology to enable service users to live in the community. Staff employed by the service have skills and personal qualities that are appropriate for working with service users.

Theme seven: Service setting and atmosphere
BRIEF DESCRIPTION: The service is provided in a comfortable, welcoming, and friendly manner. Service users are treated with consideration and respect. The service is accessible for all stakeholders.

THEMES, ATTRIBUTES, and Source of Evidence

Theme one: Person centred approaches and planning

BRIEF DESCRIPTION: The service knows its service users very well and responds to their strengths and preferences in a highly individual way. Programmes are planned based on each service user's needs and aspirations.

Attribute 1.1

The service knows its service users very well.

INDICATORS:

- Service policies and practices reflect the focus on the whole person and also close personal knowledge of service users.

- Service staff know relevant and important factual information about service users.

- Service staff know and understand the relevant life experiences of service users. They know the person as well as "about" the person.

- As appropriate in the rehabilitation setting, staff know the needs, preferences, and aspirations of service users and act upon them in the service context.

SOURCES OF EVIDENCE

1. **Do service policies emphasise the importance of a focus on the whole person?**
2. **What information is known about service users and how is this information maintained and conveyed?**
3. **Do service staff know service users both factually and according to their life experiences?**
4. **How do the needs, preferences, and aspirations of service users influence the responses of the service staff?**

Attribute 1.2

The service closely follows the needs, aspirations, and preferences of the service user.

INDICATORS:

- Documents that describe the service policies and practices clearly identify the priority of addressing the needs, aspirations, and preferences of individual service users.

- The service setting reflects as much as possible the preferences, choices, and identity of individual service users, particularly those settings in which service users spend considerable time such as residential settings. The service willingly adapts its setting, routines, activities, and processes in order more clearly to reflect the needs and preferences of service users.

- Regular feedback on the service is sought in appropriate ways from service users and people close to them. The service is responsive to this feedback and acts upon it.

- There is evidence that the service expects service users' needs and aspirations to change and responds with flexibility.

SOURCES OF EVIDENCE

1. **Do service policies and practices documents give priority to the needs, aspirations, and preferences of individual service users?**
2. **How does the service setting reflect the preferences, choices, and identity of individual service users?**
3. **Does the service seek regular feedback? Does the service act upon the feedback?**
4. **How does the service respond to changing needs and aspirations of service users?**

Attribute 1.3

The service focuses on service users' strengths and abilities rather than their disabilities.

INDICATORS:

- The service has high and realistic expectations for service users. Service users are spoken about with respect and acknowledgment of their achievements.

- The regular assessment processes used by the service include the identification of service users' abilities, strengths, and capacities, as well as disabilities.

- There is clear understanding of the importance and benefits of recognising and acting on the strengths of service users. This includes the positive impact on their self esteem and reputation. Achievements are recognised and celebrated.

- The service takes time to understand service users.

SOURCES OF EVIDENCE

1. **What expectations about service users are held by the service?**
2. **How does the service see the capacities of service users? What balance is there between strengths and impairments?**
3. **How do assessment processes identify service users' abilities?**
4. **How much time does the service take to understand service users in depth?**

Attribute 1.4

The service plans and provides programmes based on each individual service user.

INDICATORS:

- Each service user has a structured plan that is individual and clearly linked to the identification of service user needs, strengths, and preferences.
- Plans and programmes have clear objectives and assessable outcomes that are consistent with the identified needs of the individual service user.
- The plan is developed collaboratively with staff, the service user, and other people who have a legitimate interest. People who are close to the service user will participate in planning processes if agreed by service users, particularly if the service user requires that participation because of limited capacity.
- The plan is documented and accessible to relevant stakeholders.
- The plan is monitored and reviewed regularly in a process that is transparent and accessible to the service user.
- If service programmes are provided for groups of service users, the rationales for this are clear and aligned with the needs of individual service users. Grouping practices are not determined by the needs of the system.

SOURCES OF EVIDENCE

1. **Do individual service users have a structured plan that is clearly linked to the identification of needs, strengths, and preferences?**
2. **Do plans have clear objectives and assessable outcomes?**
3. **Are plans developed collaboratively?**
4. **Does the service support the involvement of other people in the planning process?**
5. **How is the service plan documented and made accessible?**
6. **Is the service plan monitored and reviewed regularly?**
7. **Are service programmes provided for groups of service users? If so, what rationales are provided for grouping?**

Theme two: Relationships

BRIEF DESCRIPTION: The service is aware of and understands the importance of relationships. It works to support and develop existing and new relationships. Real opportunities are provided to develop relationship roles in different areas such as work, education, and recreation.

Attribute 2.1

The service is aware and understands the importance of a range of relationships in the lives of service users.

INDICATORS:

- The importance of relationships in the lives of service users is clearly understood by the service and is embedded within the service policies and programmes. The role of relationships as part of the process of rehabilitation and living in the community is clearly understood.

- The service encourages and supports a wide range of relationships between service users and other people.

- Staff members are aware of the importance of relationships for service users. Staff may be provided with training relevant to relationship support and development. Training may include understanding and responding to the risks and vulnerabilities of some service users.

- Positive relationships between staff and service users are encouraged.

SOURCES OF EVIDENCE

1. **How do the service policies and practices address the importance of relationships?**
2. **Do service users have a range of relationships? How does the service encourage and support these?**
3. **What training and preparation do service staff receive about the importance of relationships for service users?**

Attribute 2.2

The service works to provide real opportunities for relationships to develop in areas such as work, education, and recreation.

INDICATORS:

- The service acknowledges the important connections between the range of valued roles associated with lifestyle activities such as work, education, and recreation, and the development and maintenance of relationships.

- The needs, preferences, and history of service users in lifestyle activities are well known and used constructively to facilitate relationships. The service provides support, advice, and encouragement so that service users can participate in lifestyle activities. If necessary, this support may be long-term and may include education/training.

- The service will work cooperatively with other agencies such as employers or educational settings to facilitate relationships. It will be careful not to be too intrusive and be mindful of issues of privacy and confidentiality. It will seek information and feedback from the other agencies regarding any relevant issues. The service will incorporate this information into its plans.

SOURCES OF EVIDENCE

1. **How does the service use lifestyle activities such as work, education, and recreation to develop and maintain relationships?**

2. **How does the service use knowledge about needs, preferences, and the history of service users to promote lifestyle activities and facilitate relationships?**
3. **Does the service work cooperatively with other agencies such as employers or educational settings to facilitate relationships?**
4. **Does the service respect privacy and confidentiality?**

Attribute 2.3

The service facilitates and supports existing and new relationships.

INDICATORS:

- The service staff members know and are sensitive to the relationship history of service users and work to maintain previous and existing relationships. They acknowledge the importance of supporting service user relationships as an important aspect of their roles.

- The service assesses and documents relationship issues and changes for the service users.

- Communication and spending time together is encouraged between service users and friends and family. The service works to rebuild relationships when appropriate.

- The service facilitates relationships between service users.

- Opportunities and practical support are provided for the development of new relationships. Common interests between service users and other people are encouraged as a basis for the development of relationships. New roles in the community, family, and friendship network are encouraged.

- Service users are provided with advice and counselling regarding relationship issues. The service provides support in the event of difficult relationships. If necessary, independent advice and support is provided.

SOURCES OF EVIDENCE

1. **What do the service staff members know about the relationship history of service users? Is attention paid to supporting previous and existing relationships? How do staff see their roles in supporting relationships?**
2. **What assessment and documentation of relationship issues and changes for the service users occurs within the service?**
3. **Does the service encourage and support service users, friends and family spending time together?**
4. **Does the service facilitate relationships between service users?**

5. **How does the service encourage the development of new relationships for service users?**
6. **Does the service provide advice and counselling regarding relationship issues?**

Theme three: Working together

BRIEF DESCRIPTION: The service involves and works with a range of relevant stakeholders including the service user, family, friends of service users, staff, community resources, and advocacy groups in order to enhance community integration. The service works to increase knowledge in the community about people with acquired brain injury.

Attribute 3.1

The service works closely with the service user, family, and friends.

INDICATORS:

- The service has documented policies and processes in place that establish the importance and priority of working together with service users, family, and friends. The service aims for cooperation and partnership between stakeholders from the beginning of the programme.

- The involvement of this group of stakeholders is obvious, clear, and tailored to their particular roles.

- They have appropriate access to information regarding the service and its programmes within the bounds of privacy and confidentiality. The requests of the service user are followed in this regard.

- The service communicates regularly and effectively with these stakeholders, using a variety of means.

- Where necessary, the service works to re-engage family and friends in the rehabilitation process.

- The service works constructively with the different perspectives of stakeholders, reconciling them where possible, and giving priority to the service user's perspective.

SOURCES OF EVIDENCE

1. **How do service documents that describe policies and processes address the importance and priority of working together with the stakeholder groups?**
2. **How does the involvement in the service of different stakeholders such as family and friends reflect their particular roles in the lives of stakeholders? Is this confirmed by interviews and observation?**
3. **What information about the service is available and to whom?**
4. **How does the service communicate with its key stakeholders?**
5. **How does the service work to re-engage family and friends in the rehabilitation process?**
6. **How does the service address the differing perspectives of stakeholders? Is priority given to service users' perspectives?**

Attribute 3.2

The service staff work as a team.

INDICATORS:

- Service staff work across disciplines appropriately, according to defined and documented agreed goals for service users.

- The programmes are driven by goals with clear and realistic timelines for service users and are not constrained by disciplinary orientations.

- Teams meet regularly in a climate of openness, cooperation, and rigour.

- Teams are inclusive of all appropriate staff groups including management.

- All team members are involved in important decisions regarding programmes.

- Teams contribute to service changes and developments.

- Team processes, assessments, and decisions are documented and accessible to all team members. Reports are prepared jointly by team members.

SOURCES OF EVIDENCE

1. **Are service goals for service users documented with clear goals, activities, and timelines?**
2. **How is the goal-setting process achieved? How are team meetings carried out? How is the decision-making process managed?**
3. **How do various disciplines operate within the team process? Are goals determined in a shared manner?**
4. **How is management involved in team processes?**
5. **How do teams contribute to wider service changes and developments?**
6. **How are reports from teams developed? To what extent are they accessible within and outside the service?**

Attribute 3.3

The service accesses, and works collaboratively with, community services.

INDICATORS:

- The service has a clear idea of the role of community in rehabilitation and of its own role within the community.

- The service has identified relevant community services and has established cooperative relationships with those services. There is an extensive network of community services.

- A bridge is provided by the service between clients and relevant community services that enables service users to access those services appropriately. The community services reflect the needs and preferences of service users.

- The service communicates appropriately with community services about service users.

- Some joint initiatives occur between the service and the community.

SOURCES OF EVIDENCE

1. **How does the service describe and justify its approach to working with community services?**
2. **What relevant community services have been identified and what is the nature of the relationships developed with them by the service?**
3. **How does the service connect service users with community services?**
4. **How does the service communicate with community services about service users?**
5. **What joint activities occur between the service and community services?**

Attribute 3.4

The service works cooperatively with advocacy groups.

INDICATORS:

- The service is aware of various advocacy groups, their roles, and the issues they address, including individual advocacy, systemic advocacy, and self-advocacy.

- Ongoing communication occurs between the service and relevant advocacy groups within a spirit of cooperation.

- The service is supportive of service user access to, and involvement with, advocacy activities.

- The service actively seeks advocacy support for some service users.

SOURCES OF EVIDENCE

1. **With which advocacy groups does the service have relationships? What kinds of relationships occur and how does communication happen between the service and these groups?**
2. **Does the service have an understanding of the different purposes and roles of advocacy?**
3. **How does the service support the involvement of service users in advocacy activities?**

Attribute 3.5

The service enhances knowledge in the community about people with ABI.

INDICATORS:

- The service uses a variety of means to inform family, friends, and other interested people about acquired brain injury.

- The service has identified relevant community groups and organisations. Neighbours, people living in proximity to the service, and relevant local services are aware of the service and its role in the rehabilitation of people with acquired brain injury.

- The service works with media to enhance knowledge in the community about acquired brain injury.

- The service sensitively conveys the particular needs of people with acquired brain injury whilst also ensuring a positive image is maintained.

SOURCES OF EVIDENCE

1. **How does the service inform people about acquired brain injury?**
2. **Are people and agencies in the surrounding neighbourhood aware of the service and its roles? Does the service engage in awareness-raising activities in the locality?**
3. **How does the service use the media to increase knowledge about acquired brain injury?**
4. **What images are conveyed by the service in its community education activities? Is the service aware of the importance of positive images?**

Theme four: Development of skills

BRIEF DESCRIPTION: The service focuses on the development of individual skills and abilities that facilitate community integration. These include encouraging and developing social skills, occupational skills, skills to access community resources, and skills to minimise risk.

Attribute 4.1

The service provides opportunities for the development of skills that are relevant to the needs of service users that contribute to community integration.

INDICATORS:

- Service practices in skills development are based on person-centred plans that identify specific skills for each service user. The plans incorporate clear goals and programmes to develop skills. Outcomes are monitored and fed back into the planning and programmes.

- Specific skill areas that contribute to community integration are identified, articulated, and incorporated into planning and programmes.

- Skill areas may include:
    - ✓ Occupational skills which lead to employment, contribute to leisure and recreation, support specific interests of service users, etc.
    - ✓ Skills that facilitate community access.
    - ✓ Skills to deal with risk in the community.
    - ✓ Financial management skills.
    - ✓ Social skill.
    - ✓ Others

SOURCES OF EVIDENCE

1. **How do service plans incorporate the development of specific skills in service users?**
2. **Do service plans incorporate clear goals and programmes aimed to develop skills?**
3. **What specific skill areas are incorporated into service programmes?**

Theme five: Community based practices

BRIEF DESCRIPTION: Many service practices are based in typical community settings. The service has developed linkages and networks with the community that promote independent living for service users.

Attribute 5.1

The service has well-developed linkages and networks with community resources

INDICATORS:

- The service has examined and evaluated mainstream community resources that can be useful for service users in the rehabilitation process.

- The service has actively developed linkages with those resources and this is reflected in successful working relationships.

SOURCES OF EVIDENCE

1. **What mainstream community resources have been identified and evaluated by the service?**

What linkages and successful working relationships with community resources have been developed?

Attribute 5.2

Service practices are located in typical community settings

INDICATORS:

- The service understands the importance of locating appropriate service practices in typical community settings as a strategy to enhance community integration.

- The service identifies specific activities and opportunities in the community.

- Service users are supported to participate in typical community settings and this is reflected in documented service plans for individual service users.

SOURCES OF EVIDENCE

1. **How does the service show the importance of locating service practices in community settings?**
2. **What specific activities and opportunities in the community have been identified by the service?**
3. **How are service users supported to participate in typical community settings? Is this reflected in documented service plans for individual service users?**

Theme six: Support for service users

BRIEF DESCRIPTION: The service promotes the involvement of a range of support people and assistive technology to enable service users to live in the community. Staff employed by the service have skills and personal qualities that are appropriate for working with service users.

Attribute 6.1

The service promotes the development of service users through natural support such as volunteers, advocates, and peers.

INDICATORS:

- The service understands the important role of natural support for service users in enhancing community integration.

- Service user plans include consideration of the involvement of natural support and the service encourages and facilitates this involvement.

- The natural support is provided based on service users needs and desires

SOURCES OF EVIDENCE

1. **How is the importance of the role of natural support for service users in enhancing community integration reflected in service policies and practices?**
2. **How are natural supports included in service user plans?**
3. **How are the needs and wishes of services users linked to the use of natural support?**

Attribute 6.2

The service ensures that staff have an appropriate mix of skills, experiences, and personal qualities.

INDICATORS:

- The service has a documented strategy in recruitment of staff that ensures an appropriate mix of specialist skills that are relevant to the service purpose and the needs of service users.
- Criteria for staff selection reflect relevant training and experience.

- Criteria for staff selection reflect appropriate qualities desired in staff including those that are consistent with the objective of community integration for service users.

- Staff performance is regularly evaluated through a clear policy of assessment and management of staff.

- The service policy identifies staff training needs and relevant training opportunities are provided.

- The number and mix of staff in the service are adequate to the service purpose.

SOURCES OF EVIDENCE

1. **What is the mix of specialist skills in the service staff?**
2. **Does the service have a clear policy for maintaining an appropriate mix of staff skills?**
3. **What are the service criteria for staff selection?**
4. **How does the service regularly evaluate staff performance?**
5. **How does the service policy identify, and provide staff training needs and relevant training opportunities?**

Attribute 6.3

The service provides appropriate specialist support including assistive technology to promote community integration such as employment support, counselling and family intervention, and clinical service.

INDICATORS:

- Service user plans identify the specific specialist support required by each service user.

- Specialist support is provided directly by the service or mediated by referral to other services. The service maintains an ongoing interest in that mediated support.

SOURCES OF EVIDENCE

1. **What specialist support is provided by the service? Is this clearly related to the needs of service users? Is specialist support incorporated into service plans?**
2. **Does the service mediate services? Does the service monitor mediated services?**

Theme seven: Service setting and atmosphere

BRIEF DESCRIPTION: The service is provided in a comfortable, welcoming, and friendly manner. Service users are treated with consideration and respect. The service is accessible for all stakeholders.

Attribute 7.1

The service atmosphere is friendly, comfortable, welcoming, and respectful

INDICATORS:

- There is a friendly, respectful relationship between service users and staff.

- Visitors are made to feel welcome.

- Staff members are encouraged to promote a friendly and welcoming atmosphere, and the service monitors this.

- Service policy and practices reflect understanding and sensitivity to cultural issues.

- The service seeks service users' feedback about the atmosphere provided in the service.

SOURCES OF EVIDENCE

1. **What is observed and experienced about the service atmosphere in:**
    a. **Service user to service user interactions;**
    b. **Service user to staff interactions;**
    c. **Staff to staff interactions;**
    d. **Visitors to service users interactions; and**
    e. **Visitors to staff interactions.**
2. **How does the service encourage and monitor staff members to promote a friendly and welcoming atmosphere in the service?**
3. **How does the service policy and practices reflect understanding and sensitivity to cultural issues?**
4. **Does the service seek service users' feedback about the atmosphere provided in the service?**

Attribute 7.2

The service is accessible for service users and other stakeholders

INDICATORS:

- Accessibility refers to a wide range of characteristics of the service, each of which can be used by service users and other stakeholders as appropriate. The service monitors issues of accessibility and ensures access is maintained.

- The service setting is physically accessible for all people.

- Areas within the service setting are freely accessible unless there is an appropriate rationale for limiting access.

- Service users have appropriate access to the tools, equipment, telephone, media, etc in the service setting.

- Visitors to the service setting have easy access with public transport, parking, pathways, etc.

SOURCES OF EVIDENCE

1. **Which aspects of the service are accessible and which are not?**
2. **Is the service aware of accessibility difficulties?**
3. **How does the service respond to accessiblility difficulties?**

Attribute 7.3

The service setting is appropriate to the service purpose

INDICATORS:

- The service setting should be identified and observed.

- The service purpose is clearly identified and is determined by the needs of service users and the stated purpose of the service. It could include aspects of rehabilitation, providing a home, employment, recreation, and education.

- The appropriateness of the setting is determined by the extent to which the setting fits with the service purpose. For example, a home or residential setting has the essential characteristics of a home or residential setting.

SOURCES OF EVIDENCE

1. **What is the service setting?**
2. **What is the stated service purpose? How is the purpose related to the needs of service users?**
3. **Which aspects of the service setting fit with the service purpose?**

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Name of the rater: ……………………

Name of the site/service ……………... Date of evaluation …………

Programme Assessment of Community Integration Attributes (PACIA)

Attribute Scoring Sheet

Rating instructions:
Rating levels range from 1 (minimum score which shows the lowest quality) to 5 (maximum score which shows the highest quality).
For each attribute, please circle the appropriate number.

PERSON-CENTRED APPROACHES AND PLANNING

1.1	The service knows its service users very well.	1	2	3	4	5
1.2	The service closely follows the needs, aspirations, and preferences of the service user.	1	2	3	4	5
1.3	The service focuses on service users' strengths and abilities rather than their disabilities.	1	2	3	4	5
1.4	The service plans and provides programmes based on each individual service user.	1	2	3	4	5

RELATIONSHIPS

2.1	The service is aware and understands the importance of a range of relationships in the lives of service users.	1	2	3	4	5
2.2	The service works to provide real opportunities for relationships to develop in areas such as work, education, and recreation.	1	2	3	4	5
2.3	The service facilitates and supports existing and new relationships.	1	2	3	4	5

WORKING TOGETHER

3.1	The service works closely with the service user, family and friends.	1	2	3	4	5
3.2	The service staff work as a team.	1	2	3	4	5

3.3 The service accesses, and works collaboratively with, community.	1	2	3	4	5
3.4 The service works cooperatively with advocacy groups.	1	2	3	4	5
3.5 The service enhances knowledge in the community about people with ABI.	1	2	3	4	5

DEVELOPMENT OF SKILLS

4.1 The service provides opportunities for the development of skills that are relevant to the needs of service users that contribute to community integration.	1	2	3	4	5

COMMUNITY BASED PRACTICES

5.1 The service has well-developed linkages and networks with community resources.	1	2	3	4	5
5.2 Service practices are located in typical community settings.	1	2	3	4	5

SUPPORT FOR SERVICE USERS

6.1 The service promotes the development of service users through natural support such as volunteers, advocates, and peers.	1	2	3	4	5
6.2 The service ensures that staff have an appropriate mix of skills, experiences, and personal qualities.	1	2	3	4	5
6.3 The service provides appropriate specialist support including assistive technology to promote community integration such as employment support, counselling and family intervention, and clinical service.	1	2	3	4	5

SERVICE SETTING AND ATMOSPHERE

7.1 The service atmosphere is friendly, comfortable, welcoming, and respectful.	1	2	3	4	5
7.2 The service is accessible for service users and other stakeholders.	1	2	3	4	5
7.3 The service setting is appropriate to the service purpose.	1	2	3	4	5

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Name of the rater: ……………………

Name of the site/service ……………... Date of evaluation …………

Programme Assessment of Community Integration Attributes (PACIA)

Individual and Conciliated Attribute Scoring Sheet

Rating instructions:
Rating levels range from **1** (minimum score which shows the lowest quality) to **5** (maximum score which shows the highest quality).
For each attribute, please **circle the appropriate number for the individual and cross it for the conciliated opinion.**

1.1	1	2	3	4	5
1.2	1	2	3	4	5
1.3	1	2	3	4	5
1.4	1	2	3	4	5
2.1	1	2	3	4	5
2.2	1	2	3	4	5
2.3	1	2	3	4	5
3.1	1	2	3	4	5
3.2	1	2	3	4	5
3.3	1	2	3	4	5
3.4	1	2	3	4	5
3.5	1	2	3	4	5
4.1	1	2	3	4	5
5.1	1	2	3	4	5
5.2	1	2	3	4	5
6.1	1	2	3	4	5
6.2	1	2	3	4	5
6.3	1	2	3	4	5
7.1	1	2	3	4	5
7.2	1	2	3	4	5
7.3	1	2	3	4	5

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Appendix S

Framework for interview with managers

Framework for interview with managers

Part one: Introducing raters, and explanation about project, and evaluation process.

Part two: Introducing service to raters by service manager.

Part three: Specific broad questions regarding attributes in the themes by the team leader as follow:

Theme one: Person centred approaches and planning

1.1 How do management and staff get to know each service user?

1.2 How do each person's needs, aspirations and preferences become known, and responded to? Please more examples to better clarification.

1.3 How do service user's strengths and abilities become known? How are these utilised?

1.4 What planning occurs re each service user? In what ways are services tailored for each service user?

Theme two: Relationships

2.1 What do you see as the important relationships in the lives of your service users?

2.2 What is the service role and approach to opportunities for relationship development through work, education, recreation? Please give some examples.

2.3 What is the services role or effort for service users with few or no relationships?

Theme three: Working together

3.1 Are service users, their family, and friends are involve with providing the service? How?

3.2 How staff are fit as a team and how do they collaborate together?

3.3 In what ways does the service work with the community e.g. individuals, groups, settings, organisations?

3.4 In what way advocacy organisations engaged with service users?

3.5 Does the service have a role in increasing knowledge of people with ABI in the community? How and for what purpose/s?

Theme four: Development of skills

4.1 What skills are important to service user's re integration? What does the service do in this area?

Theme five: Community based practices

5.1 What community resources do you network or interact with?

5.2 What is the range of settings in which service provision occurs?

Theme six: Support for service users

6.1 In what ways does the service engage with, or develop, service user's natural supports such as volunteers, advocates, peers?

6.2 What skills, experience and personal qualities are sought in staff? What opportunities for development are provided? (Specific learning re integration)

6.3 What specialist supports is provided? For example:

-assistive technology

-employment support

-counselling

-family intervention

-clinical support

Theme seven: Service setting and atmosphere

7.1 How the service atmosphere is suitable for service users and relevant?

7.2 How accessible is the setting to service users and relevant? (Getting to and from)

7.3 How appropriate is this setting to the purpose of the service?

Part four: Team members' questions from manager

Appendix T

PACIA feedback booklet

PACIA feedback form

Guideline

1. To what extent was the guidelines informative and prepared you for the training?
2. What other information should be added to the guideline for a better understanding of the PACIA?
3. What parts of the guidelines are not clear?
4. What changes to the guideline are needed to make it more useful?
5. What other considerations do you have (e.g. content, order of information) about the guidelines?

Training section

6. To what extent was the training informative?
7. What other information should be added to the training for a better understanding of the PACIA?
8. What parts of the training were not clear?
9. What changes to the training are needed to make it more useful?
10. What other information should be added to the training for a better understanding of how to use the PACIA?
11. What other considerations do you have (e.g. time, length, content, presentation format) about the training?

Evaluation tool

12. What parts of the instructions for using the PACIA were not clear/ difficult to understand?
13. What other information should be added to the PACIA for a better understanding of how to use it?
14. What other items could be added to the PACIA?
15. What other questions could be needed to help you rate the items?

16. Please answer the questions related to the PACIA useability in the following table.

PACIA scale	How understandable was the theme?	How understandable were the attributes?	How understandable were the indicators?	How understandable were the questions in the sources of evidence?	How easy to find related information to rate the item?
1.1					
1.2					
1.3					
1.4					

PACIA scale	How understandable was the theme?	How understandable were the attributes?	How understandable were the indicators?	How understandable were the questions in the sources of evidence?	How easy to find related information to rate the item?
2.1					
2.2					
2.3					

PACIA scale	How understandable was the theme?	How understandable were the attributes?	How understandable were the indicators?	How understandable were the questions in the sources of evidence?	How easy to find related information to rate the item?
3.1					
3.2					
3.3					
3.4					
3.5					

PACIA scale	How understandable was the theme?	How understandable were the attributes?	How understandable were the indicators?	How understandable were the questions in the sources of evidence?	How easy to find related information to rate the item?
4.1					

PACIA scale	How understandable was the theme?	How understandable were the attributes?	How understandable were the indicators?	How understandable were the questions in the sources of evidence?	How easy to find related information to rate the item?
5.1					
5.2					

PACIA scale	How understandable was the theme?	How understandable were the attributes?	How understandable were the indicators?	How understandable were the questions in the sources of evidence?	How easy to find related information to rate the item?
6.1					
6.2					
6.3					

PACIA scale	How understandable was the theme?	How understandable were the attributes?	How understandable were the indicators?	How understandable were the questions in the sources of evidence?	How easy to find related information to rate the item?
7.1					
7.2					
7.3					

Appendix U

Guidelines for Service providers

Curtin Health Innovation Research Institute
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Centre for Research into Disability and Society

The Programme Assessment of Community Integration Attributes (PACIA)

Guidelines for Service providers

July 2009

Curtin Health Innovation Research Institute
School of Occupational Therapy and Social Work
Centre for Research into Disability and Society

Service Manager/Coordinator Information Sheet for the Programme Assessment of Community Integration Attributes (PACIA) Evaluation

Evidence-based Evaluation of Programme Interventions to Achieve Positive Community Integration Outcomes for Adults with Acquired Brain Injury

What is the purpose of the evaluation?
The aim of this study is to develop an instrument to evaluate the fidelity of community integration programmes for adults with acquired brain injury (ABI).

What is the research about?
This research has developed a framework for describing community integration for adults with ABI who are in the post acute phase. This framework was then used to construct an instrument to evaluate programmes that have some focus on community integration outcomes. The evaluation will help us refine the instrument so it is valid and reliable.

How will the research be carried out?
This research was carried out in two phases. In Phase One, a survey was conducted in three rounds. Respondents in both phases were people who had a direct interest in acquired brain injury including researchers, practitioners, policy makers, and consumers. In the first round, the respondents addressed broad questions including their concept and definition of successful community integration. The data was analysed and the outcomes formed the next round’s questions aiming for more clarity to further develop the definition. In Phase Two, the characteristics of programmes that achieve positive outcomes in community integration for people with acquired brain injury were identified, and this information used to develop the evaluation instrument. This Phase was conducted in four rounds. The results of the study made Programme Assessment Community Integration Attributes (PACIA), an assessment tool to evaluation community integration programmes.

What will research participants be asked to do?

If you agree to participate, five raters will come to evaluate the service programme through reading documents, interview with staff and residents, and observe the service.

What will happen to the private information and information from the groups?

Complete confidentiality will be ensured in any publications or presentations that arise from this research and no service, or personal details will be published. No names will be included on the interviews that you or other staff or residents will be asked to complete. At completion of study, all written information about the service will be returned to the service or destroyed.

What is the tool to be used?

The tool, Programme Assessment of Community Integration Attributes (PACIA), includes seven themes, and twenty one attributes. These are resulted from the two phases of the project by searching in the literature, doing interview and survey with professionals, people with ABI, and their relevant.

Who do I contact if I have any question or want further information?

You are welcomed to contact:

Researcher: Shahriar Parvaneh	Project Supervisor: Professor Errol Cocks
Tel: (08) 9266 1789	Tel: (08) 9266 3659
Email:	Email
shahriar.parvaneh@postgrad.curtin.edu.au	E.Cocks@curtin.edu.au

Thank you for your time and assistance.

This study has been approved by the Curtin University Human Research Ethics Committee (Approval Number HR 61/2007). If needed, verification can be obtained either by writing to the Curtin University Human Research Ethics Committee, C/- Office of Research and Development, Curtin University of Technology, GPO Box U1987, Perth 6845 or by telephoning (08) 9266 2784 or by emailing hrec@curtin.edu.au.

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The Programme Assessment of Community Integration Attributes (PACIA)

THEMES

Theme one: Person centred approaches and planning

BRIEF DESCRIPTION: The service knows its service users very well and responds to their strengths and preferences in a highly individual way. Programmes are planned based on each service user's needs and aspirations.

Theme two: Relationships

BRIEF DESCRIPTION: The service is aware of and understands the importance of relationships. It works to support and develop existing and new relationships. Real opportunities are provided to develop relationship roles in different areas such as work, education, and recreation.

Theme three: Working together

BRIEF DESCRIPTION: The service involves and works with a range of relevant stakeholders including the service user, family, friends of service users, staff, community resources, and advocacy groups in order to enhance community integration. The service works to increase knowledge in the community about people with acquired brain injury.

Theme four: Development of skills

BRIEF DESCRIPTION: The service focuses on the development of individual skills and abilities that facilitate community integration. These include encouraging and developing social skills, occupational skills, skills to access community resources, and skills to minimise risk.

Theme five: Community based practices

BRIEF DESCRIPTION: Many service practices are based in typical community settings. The service has developed linkages and networks with the community that promote independent living for service users.

Theme six: Support for service users

BRIEF DESCRIPTION: The service promotes the involvement of a range of support people and assistive technology to enable service users to live in the community. Staff employed by the service have skills and personal qualities that are appropriate for working with service users.

Theme seven: Service setting and atmosphere

BRIEF DESCRIPTION: The service is provided in a comfortable, welcoming, and friendly manner. Service users are treated with consideration and respect. The service is accessible for all stakeholders.

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Service Manager/Coordinator Consent Form for the Programme Assessment of Community Integration Attributes (PACIA) Evaluation

I have read the information on the attached letter. Any questions I have asked have been answered to my satisfaction and any programme material will be anonymous. I agree to service staff and residents in the service participating in the evaluation project.

I agree that raters can have access to relevant documents, observe the programme processes, and ask questions or interview staff and residents if they are agreeable.

I understand that all information provided will be treated as confidential, and no information that identifies clients will be taken from the site. Client-related documents may be cited, without the need to view identifying information.

I agree that research gathered for this study may be published provided names or any other information that may identify the service, service users, or staff are not used.

Name of the Service/Site: ____________________________

Name: ______________________ Position: _________________

Signature: ______________ Date: ______________

Telephone: _____________ Email: __________________________________

If you have any questions, you are welcome to contact us.

Researcher: Shahriar Parvaneh	Project Supervisor: Professor Errol Cocks
Tel: (08) 9266 1789	Tel: (08) 9266 3659
Email:	Email
shahriar.parvaneh@postgrad.curtin.edu.au	E.Cocks@curtin.edu.au

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Appendix V

Information Sheet for Raters

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The Programme Assessment of Community Integration Attributes (PACIA)

Information Sheet for Raters

July 2009

Curtin Health Innovation Research Institute
School of Occupational Therapy and Social Work
Centre for Research into Disability and Society

Information sheet for Raters

What is the purpose of the evaluations?

The aim of the research project is to develop an instrument to evaluate fidelity of community integration programmes for adults with acquired brain injury (ABI). These evaluations are intended to examine aspects of the validity of the instrument.

What is the tool to be used?

The tool, Programme Assessment of Community Integration Attributes (PACIA), includes seven themes, twenty attributes, and a number of indicators. The tool was developed in a research project. The participants in the study were professionals, people with acquired brain injury, and their families or carers. The professionals were researchers, practitioners and policy makers. First, the research developed a framework to define community integration and second, identified themes, attributes, and indicators based on the participants' opinions and the literature regarding community integration.

What services will be evaluated?

The tool will evaluate three diverse post-acute ABI programmes in WA.

How will the evaluations be carried out? (Sequence of activities).

1. Training of Raters on the instrument and the evaluation process in a half day workshop.

2. Gathering information.
   In each programme assessment, all Team Members individually will gather data relevant to rating twenty one attributes of the tool. Data will be gathered through reading programme documents, observing the programme, and interviewing residents, staff, and possibly representatives of relevant external agencies.

3. Individual ratings.
   The Raters individually assign a level to each attribute based on gathering extensive evidence (both positive and negative) for the assigned ratings.
4. Conciliated ratings.
   In a conciliation process involving all Raters, conciliated levels will be assigned to each attribute. This will be based on the contributions of Raters regarding their

observations, judgements, and recommendations. In order to strengthen and/or expand the team's analyses during the conciliation process the Team Leader may assign responsibilities to individual Team Members for special concentration on certain rating attributes.

The roles of the Team Leader and the Team Members

In the evaluation process, the Team Leader manages the evaluation schedule, carries out some interviews, facilitates the rating process, and allocates the Team Members to perform the following tasks:

1. Read programme documents that describe policies and practices, such as service missions and programmes, individual client records/reports, and other documents received on site.

2. Spend time with service users, family, friends, and service providers in a relatively informal manner. Also, formally interviewing some key stakeholders including the person/s who manage the programme and service provider/s. In the formal interview, the Team Leader will ask all questions, and Team Members will be responsible for note taking. Team Members will have an opportunity to ask questions towards the end of the interview.

3. Direct observation of the programme including the service setting and service practices.

The Team Leader may assign specific Team Members to visit assessment–related services which have some prominent role in the direct experience of the clients in the service. Some examples are work sites, residential sites, recreational sites, generic, and possibly ordinary community resources that are used by the service.

Observation of the programme is intended to be relatively informal and may involve casual conversations or social interactions such as a sharing a meal or a coffee. Team Members are visitors to programme sites and must not become part of the programme.

What is the time frame?
The evaluation process will be carried out over six days across two weeks as the following table.

Activity	Week One (August 3-5) from 8.30-5.00	Venue
Training and planning	Day one (03/08/09)	Research Centre Meeting Room
Service programme evaluation	Days one and two (03&04/08/09)	Service
Rating/Conciliation	Day three (05/04/09)	Research Centre Meeting Room

Activity	Week Two (August 10-12)	Venue
Service programme evaluation	Day one (10/08/09)	Service
Rating/Conciliation	Day two (11/08/09)	Research Centre Meeting Room
Service programme evaluation	Day two and three (11&12/08/09)	Service
Rating/Conciliation	Day three (12/08/09)	Building 401,Room 256

If you have any question or want further information, please contact:

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Thank you for your time and assistance

Appendix W

Confidentiality Agreement for Raters

Curtin
University of Technology

Curtin Health Innovation Research Institute
School of Occupational Therapy and Social Work
Centre for Research into Disability and Society

Confidentiality Agreement for the Programme Assessment of Community Integration Attributes (PACIA) Evaluation

In connection with the upcoming assessment I will participate in, I will have access to a great deal of written and verbal information, much of which may be of a confidential or sensitive nature. Because of this I will strictly adhere to the following:

1. All information obtain with regard to the clients, staff, management, board of directors, overall programme and general administration of the services visited, will be treated in total confidence.

2. This information will not be discussed with anyone, except the other members of the assessment team.

3. No verbal or written reference to the services visited will take place unless all identifying names, addresses, etc. are omitted.

4. Any notes or summaries on the services visited which I have kept will be returned to the team leader at the conciliation of the evaluation.

Name of the PACIA Team Member: ____________________________

Signature ___________________________ Date ______________

Please return this form to the Team Leader.

This study has been approved by the Curtin University Human Research Ethics Committee (Approval Number HR 61/2007). If needed, verification can be obtained either by writing to the Curtin University Human Research Ethics Committee, C/- Office of Research and Development, Curtin University of Technology, GPO Box U1987, Perth 6845 or by telephoning (08) 9266 2784 or by emailing hrec@curtin.edu.au .

Based on: Wolfensberger, W. (1983). Guidelines for evaluators during a PASS, PASSING, or similar assessment of human service quality. Toronto: The Canadian National Institute on Mental Retardation.

Appendix X

PACIA content validity survey form

Dear Colleague,

Thank you for continuing participation in our project. We greatly appreciate the important contribution you have made so far.

In our previous ranking we reviewed the themes, attributes and you ranked them individually based on their priorities. We analysed the results and considered your comments. Therefore we prepared the final draft of the framework. Based on your opinions and feedback, an updated version of the survey is attached.

We now need your help to review the survey and to score the attributes again to find your opinion about how essential is each attribute to evaluate community integration programmes for people with acquired brain injury. We would be very grateful if you could return the completed survey to us as soon as convince for you. This would give us enough time to final analyse the data and get ready for the next step. Sorry for the short notice. We may call to remind you.

Please complete the survey below, and then send it to us.

Instructions to complete the survey

Please allocate a number to indicate your opinion of each Attribute based on:

0= Not necessary 1= Useful, but not essential 2= Essential

Attributes	*Importance (0-2)*
1.1 The service knows its service users very well.	
1.2 The service closely follows the needs, aspirations, and preferences of the service user.	

1.3 The service focuses on service users’ strengths and abilities rather than their disabilities.	
1.4 The service plans and provides programmes based on each individual service user.	
2.1 The service is aware and understands the importance of a range of relationships in the lives of service users.	
2.2 The service works to provide real opportunities for relationships to develop in areas such as work, education, and recreation.	
2.3 The service facilitates and supports existing and new relationships.	
3.1 The service works closely with the service user, family, and friends.	
3.2 The service staff work as a team.	
3.3 The service accesses, and works collaboratively with, community services.	
3.4 The service works cooperatively with advocacy groups.	
3.5 The service enhances knowledge in the community about people with ABI.	

4.1 The service provides opportunities for the development of skills that are relevant to the needs of service users that contribute to community integration.	
5.1 The service has well-developed linkages and networks with community resources.	
5.2 Service practices are located in typical community settings.	
6.1 The service promotes the development of service users through natural support such as volunteers, advocates, and peers.	
6.2 The service ensures that staff have an appropriate mix of skills, experiences, and personal qualities.	
6.3 The service provides appropriate specialist support including assistive technology to promote community integration such as employment support, counselling and family intervention, and clinical service.	
7.1 The service atmosphere is friendly, comfortable, welcoming, and respectful.	
7.2 The service is accessible for service users and other stakeholders.	
7.3 The service setting is appropriate to the service purpose.	

We appreciate that you are putting considerable time into the project. Thanks again.

If you have any questions, you are welcomed to contact us:

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