DClinPsy Portfolio

Volume 1 of 2

A portfolio submitted in partial fulfilment of the requirements of the University of Hertfordshire for the degree of DClinPsy including a thesis entitled:

Self-stigmatization and ageism amongst older people accessing mental health services

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Compare and contrast the construction of 'psychopathology' in Adult and Older Adult Mental Health

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Compare and contrast the construction of 'psychopathology' in Adult and Older Adult Mental Health

Introduction

This essay will aim to divide the title into relevant parts, before synthesizing the information in an attempt to fully appreciate the task at hand.

A definition of what is meant by 'psychopathology' will be provided, before the notion of a 'construction' is outlined and explored. The applicability of these two concepts within the domains of adult and older adult mental health will be examined, with prevalence rates discussed. Additional factors of pertinence in diagnosis are outlined, with the argument culminating in ageism being seen as a consequence of society's constructions.

What is 'psychopathology'?

The Oxford Dictionary, Thesaurus, and Wordpower Guide (2001, pp.1035) defines psychopathology as 'the scientific study of mental disorders'. For the purposes of this essay the terms mental disorders, mental illness, mental problems, psychiatric illness, psychiatric disorders, and psychiatric problems, will all be used interchangeably, referring to the notion of 'mental disorders.'

References to mental illness can be found throughout history within different cultures (Stirling & Hellewell, 1999). Consequently, different classification systems have been developed over time in order to quantify psychopathology, for example, the International Classification of Diseases (currently version 10), and the Diagnostic Statistical Manual of Mental Disorders (DSM) (currently on its fourth edition, revised). A formal means of identifying and diagnosing 'abnormal' behaviour is needed to establish best practice and inform treatment decisions for those experiencing psychological difficulties.

The DSM-IV-TR is the current classification system used in the UK. It defines a mental disorder as '…a manifestation of a behavioural, psychological, or biological dysfunction in the individual.' (American Psychiatric Association, 2000, pp.xxxi)

Constructing psychopathology

Psychopathology can be construed in different ways depending on how it is 'constructed' by the individual, or even by the society in which we live. George Kelly argued that clients do not use conventional medical model diagnoses in interpreting their experiences, but rather they classify their psychological problems depending on how they make sense of their own world (Winter, 1992). Burr (2003, pp.4) suggested that it is '…through the daily interactions between people in the course of social life that our versions of knowledge become fabricated.' This social constructionist theme is used throughout this essay as a basis for how we construe our surroundings, and construct opinions, values, and ideals. Consequently, the way we individually, or collectively as a society, view and interpret the world will shape the way we ultimately view mental illness.

Mental Health Services

The UK National Health Service (NHS) divides up our mental health services into age groups, including Adult Mental Health, which covers adults of working age, and Older Adult Mental Health, which generally treats adults aged 65 years plus. As there is segregation between people who might be presenting with the same problems, based solely on age, this essay will look at the similarities and differences that appear in these two age groups when looking at the way psychopathology is constructed.

Psychiatric diagnosis

The case of whether diagnosing mental illness is beneficial or not to the client is a central theme throughout this essay. Arguments are presented for both positive and negative implications, with some clinical examples provided. However, it is felt that on the whole attaching a medically based label as a consequence of someone's presentation has more negative connotations than positive. This is due to the variation apparent between different people, different cultures, and even different diagnosing Psychiatrists, based on how they view and create the notion of mental illness; in a sense their 'construction of psychopathology.'

Benefits of a diagnosis

Receiving a diagnosis can allow an individual/family to prepare for the future with knowledge of the likely prognosis of the disorder, and the various options available to

them. It can help individuals make informed choices, and in my clinical experience can facilitate a better understanding of the illness, and provide a mode of communication with professionals.

As a clinician I have worked with individuals and families for whom receiving a diagnosis was a relief, which supports research carried out by Dinos, Stevens, Serfaty, Weich and King (2004). Finally receiving a diagnosis brought to an end the constant search for answers. Instead, they were able to accept the illness for what it was, adjusting their lives accordingly, based on the information that was available. Ogden *et al*. (2003) found that patients who received a medical label (rather than a lay label) felt that their problem had been taken more seriously, and that this label would allow them to take the necessary time off work, as well as outlining a definite course of the illness.

In the case of Charles Bonnet syndrome (the presence of hallucinations in the absence of any mental health disorder) a diagnosis provides the sufferer with evidence that they do not have a mental illness, and offers an explanation as to the cause (Dlugón, 2000). In this scenario a diagnosis is greatly welcomed because it allays fears of having a mental illness, and in fact delivers evidence that their experiences can be fully explained.

The basis of a psychiatric diagnosis

An apparent problem though is that medical and psychiatric diagnoses differ in how they are formulated. Medical diagnoses are based on the presence of underlying physiological, tangible processes. In contrast, psychiatric diagnoses are based on the presenting symptoms and descriptions used. As a result the diagnosing Psychiatrist bases his/her decision on their previous clinical experience and the constructs they have of the presenting symptoms and what they mean (Johnstone, 2000). Thus, the system used is a very subjective one and it is not uncommon to review a patient's file and find various diagnoses across the years from different medical professionals, rather than an initial diagnosis being consistently used. Szasz (1991, 1995) suggested that diagnoses are not the same as diseases because whereas a disease can exist even if it has not yet been discovered, a diagnosis is a social construct that changes based on the social and cultural norms of that time (cited in Dammann, 1997).

The fact that diagnostic decisions are based on professional subjectivity with no actual physical evidence suggests that there are a number of contributing factors which are potentially ignored. Individuality is crucial when thinking of diagnosis, as no two people with the same mental illness will present in entirely the same way as a consequence of environmental factors, societal, and cultural factors, amongst others. Johnstone (2000) suggested that we try to understand mental illness in a systemic way. Instead of regarding the illness as solely part of a person, we should consider the whole system in which it is located (e.g. family, friends, and colleagues), and how some of these interactions may impact on the mental illness.

Societal influences

It is also important to appreciate how society influences the way mental illness is viewed, and the resultant diagnoses made. The concept of schizophrenia is an example of this. In Western cultures hearing voices is generally considered evidence of psychiatric illness, namely schizophrenia. However, the same voices might be considered in spiritual, mystical, psychoanalytical or paranormal terms in other societies and cultures (Johnstone, 2000). The Hearing Voices Movement is a body of people who hear voices but do not pathologize them as a mental illness. Instead, they consider them an important part of their lives, and function well with them in society. Therefore, it can be considered that the way people construe their experiences, the way they make sense of their daily lives, leads them to interpret things in one way or another. This notion applies not only to those who are hearing voices, experiencing psychiatric symptoms, and so on, but also to the diagnosing Psychiatrist, and to the people we encounter in our everyday lives.

Society is very influential with regards to the formation of constructions. If the language used in society is a very medically oriented one, as is the case in Western culture, then it is natural that these terms are adopted into everyday language. Exposure to psychology and notions of mental illness is ever increasing, with reality TV shows such as Big Brother and Little Angels providing insight into psychological interpretations of behaviour. Contemporary cinema is also rich with films containing psychological undertones, for example Psycho (1960), The Shining (1980), and Silence of the Lambs (1991), with literature, news, and entertainment media also

having a role in portraying, mainly negative images of, mental distress. Consequently, it appears that the majority of the general public has as at least some awareness of psychological ideas. As a result it is felt that as our language and awareness of psychological ideas has developed, so the more readily we view ourselves, and each other, in pathologizing ways. It appears that we are all too ready to bracket ourselves into the same categories, rather than differentiating between individuals based on their experiences, and their presenting symptoms. The implications of this become apparent when considering the differences that might appear between ages across the lifespan.

Is there a difference in prevalence amongst older adults?

When considering the potential differences between adults of working age, and those aged over 65, the diagnostic criteria used, and the statistical norms on which assessment tests are based must be looked at. It is commonly believed that most psychiatric disorders are less prevalent in older adults (Jeste, Blazer & First, 2005). However, the studies that have provided this evidence are subject to a number of methodological flaws, including improper definitions and diagnostic criteria for older adults (Jeste *et al.,* 1999, cited in Jeste *et al.*, 2005). Fisher, Zeiss & Carstensen (1993) highlighted a lack of standardised assessment instruments which have been normed on older adults. This has implications when considering the reliability, validity and cut-off scores of assessment tools as the norms were developed with younger adults, yet are now being applied to older populations.

Diagnostic flaws

As research develops, and new assessment techniques are designed, so the sensitivity of these tests to pick up symptoms improves. However, this means that to date there has been no consistent way of assessing symptoms across the lifespan. Therefore, it is likely that the current prevalence rates will not accurately reflect the true incidence of mental illness amongst the elderly. Consequently, even if mental illness presents differently in older adults it will not necessarily be identified accurately as these individuals might fall below the current diagnostic thresholds (Jeste *et al.,* 2005).

Factors affecting diagnosis

Diagnosing mental illness in later life is complicated by co-morbidity. It is common to find someone in later life presenting with more than one problem, be that medical or

psychiatric in nature. Therefore, it can be hard to differentiate between the presenting symptoms and make an accurate diagnosis because they all overlap. This is another instance when the decision is based on the Doctor's professional judgement and their personal constructs of the symptoms present.

A limitation with the majority of the research conducted to date on incidence rates is that those subjects aged 65 years and over are grouped into one age category, whereas adults of working age are separated into three or four smaller age groups. The result is a simplistic view which does not allow for differentiation between diagnoses within the older adult age group, due to the relationship between aging and psychopathology being distorted (Fisher *et al.*, 1993). There has also been a lot of variance in the reported prevalence rates in epidemiological studies, with the presence of psychopathology ranging from 6-37% depending on the specific old age category used (Feinson & Thoits, 1985, cited in Fisher *et al.*, 1993).

When contemplating the differences in psychopathology across adulthood cohort differences must be taken into account. Not only might there be differences in how mental illnesses present based on the age of the person, but there might also be differences based on how that individual has lived their entire life. The current older adult population in the UK is one which has experienced a number of potentially traumatizing events throughout their lives (Bonwick & Morris, 1996, cited in Woods, 1999). In 1993, for example, approximately one million older adults had a diagnosis of Post Traumatic Stress Disorder (PTSD) who had served in World War II (WWII) and Korea (Department of Veteran Affairs, 1993, cited in Scogin, Floyd & Forde, 2000). For those who were born after WWII there is an increased risk of depressive illness (Hagnell *et al.,* 1982, cited in Anthony & Aboraya, 1992), with this being a cohort effect of the time in which this generation of older adults were raised, rather than the fact that these individuals are now elderly.

Based on this evidence, it appears that age itself is not necessarily a contributing factor to prevalence rates of mental illness, but rather it is the individual's life experiences, the influence of the society in which they were raised, and are currently living, that has a lasting effect. Lebowitz and Niederehe (1992) stated that the

physical health of an individual and other biological factors generally have more of an influence on mental health than a person's chronological age.

As suggested then, other factors impact on the individual aside from their age, which can lead to psychological problems. One such factor has been found to be social status, with depression and schizophrenia, for example, having a higher prevalence rate in working class backgrounds (Barbigian, 1985), and anorexia nervosa (Cohen & Hart, 1988) and manic depression (Giggs & Cooper, 1987) being more prevalent amongst those of middle class backgrounds (all cited in Gomm, 1996).

These findings lead to the opinion that mental illness prevalence rates amongst adults and older adults cannot be accurately outlined. Instead, the constructions of mental illness which are used or imposed onto people within society are the focus of this essay, as these affect the perceived incidence rates across the lifespan.

Ageism and mental illness

Comfort (1977) defined ageism as '…the notion that people…become people of distinct or inferior kind by virtue of having lived a specific number of years.' (cited in Nolan, 1996, pp. 4). Our society is one in which growing old is often viewed negatively, with people all too ready to regard problems experienced in later life, such as depression, as a natural consequence of the ageing process, rather than looking for an underlying cause (Laidlaw, 2001, cited in Lee, Volans & Gregory, 2003). Even mental health professionals have been found to be ageist toward the elderly. Ford and Sbordone (1980) reported that Psychiatrists tended to regard older adults as 'less ideal for their practices than younger people with identical symptoms' (pp. 571). In addition, the profession of Clinical Psychology has difficulty recruiting individuals to work within the field of Older Adults, possibly due to the notion that psychotherapy with this age group is less effective (Lee *et al.,* 2003).

This negative attitude toward mental illness in old age in some circumstances could result in older adults themselves tolerating a greater severity of problems than younger adults before presenting themselves to mental health services. This could very well lead to mental illness in older adults going under diagnosed. Segal, Coolidge, Mincic, and O'Reily (2005) found that older adults were more likely to

view mental illness in a negative way, seeing it as embarrassing and a sign of having poor social skills, when compared to younger adults. The greater the negative attitude about mental illness the less likely that person was to seek psychological help. The stigma attached to mental illness is very much evident within older adults themselves as certain people within the 'old' old age range have been noted as equating mental illness with personal failure (Lebowitz & Niederehe, 1992). Therefore, this negative attitude is a self-perpetuating cycle, with both young and old adopting a pessimistic view of later life.

Reasons for viewing old age negatively include the ensuing physical and psychological problems sometimes experienced, for example, mobility difficulties and memory concerns. However, the difficulties faced by older adults tend to be grouped together under the heading 'growing old', without necessarily considering the real underlying cause of the difficulties, and the possibility of treatment. In the case of depression a commonly heard belief in everyday discourse is 'of course they're depressed, they're old'. This reasoning is deemed a solid explanation of the symptoms seen, without actually looking to understand the reasons for the depression and ways to manage and treat it. This Western societal view is one which has been constructed through our experiences, through what we have learnt from the environments in which we have lived. In other cultures the view of the elderly can be very different, with the elderly in Japan for example, remaining integrated and respected in the community (Powell, 1982, cited in Nolan, 1996).

It appears that the elderly are often discriminated against when it comes to services offered, or how worthwhile they might be. Balcombe and Saweirs (2000) have found a consensus across Britain that older people are often regarded as of 'less social worth' than younger adults (pp.44). The same authors suggested the 'fair innings' argument, where older people are considered by the general public to have 'had their time' with resources being better directed at younger people, who have more to live for (2000, pp.44). A common stereotype held against the elderly, still frequently heard today, is that 'you can't teach an old dog new tricks' (Birren, 1964, cited in Nolan, 1996).

The age discrimination that is apparent towards the elderly can be thought of as constructed by our Western society. These constructions inevitably influence the value we give to working with older adults, especially those with mental health problems. My experience of working in the NHS is that services for older adults tend to be less well resourced, and given less prominence than those offered to younger adults. This supports the research outlining ageism apparent both in general society, and also amongst health care professionals.

Comparisons across the adult life-span

As the current diagnostic criteria used has no specific norms for older adults it is hard to decipher exactly if there is any variation in symptoms of mental illness across the lifespan, as current findings will essentially be inaccurate. However, exploring the symptoms evident in both age ranges in three commonly referred to psychiatric diagnoses reveals some interesting data.

Mood disorders

It has been found that a diagnosis of major depression in older adults is much more likely to be accompanied by co-morbidity with general medical conditions (Sullivan *et al.,* 1997) and other psychiatric problems (Lyketsos *et al.,* 1997) (both cited in Jeste *et al.*, 2005). However, when considering the range of depressive symptoms seen in mood disorders there are reportedly no major differences between older and younger adults (Berkman *et al.,* 1986; Ross & Mirowsky, 1984; both cited in Jeste *et al.*, 2005). Following on from this Blazer *et al.* (1987) found that symptoms of moderate to severe depression were similar in middle-aged, and older adults, if there were no comorbid conditions present (cited in Jeste *et al.,* 2005).

Schizophrenia

Schizophrenia is typically diagnosed during late adolescence/early adulthood. Although in a small number of people, symptoms present themselves for the first time in middle age, or later life (Howard *et al.,* 2000, cited in Jeste *et al.,* 2005). The notion that there might be two very distinct types of schizophrenia, namely early-onset and late-onset, is problematic with regards to differentiating between the two as both similarities and differences between the two 'types' have been documented (Jeste *et al.,* 2005). Therefore, at present there is no clear consensus as to symptom similarities in schizophrenia between working-aged adults, and those in later life.

Anxiety Disorders

Due to the physical and psychosocial changes experienced by older adults as part of the aging process it is difficult to differentiate between phobias and nonpathological avoidance (Jeste *et al.,* 2005). For example, in my clinical experience I have worked with an 87 year old woman who had become afraid to leave her house alone. What can be difficult to decipher in cases such as these is if the fear is due to a phobia, or if in this case the woman's increasing frailty and resultant vulnerability has resulted in a natural avoidance of situations where she has to venture outside without support. Consequently, epidemiological studies that suggest a lower prevalence rate of anxiety in the elderly (Blazer *et al.*, 1991; Flint 1994; Regier *et al.*, 1988; all cited in Jeste *et al.,* 2005) might be incorrect due to the diagnostic criteria not being sensitive enough for older populations (Palmer *et al.,* 1997, cited in Jeste *et al.*, 2005).

Is there cause to treat older adults with mental illness differently?

The information outlined above suggests that at present there is no evidence clearly demonstrating that 'older' adults present with psychiatric disorders remarkably differently to 'younger' adults. The fact that the older adult population are treated differently in terms of the treatment options offered to them in mental health services is therefore questionable. As a result, the conclusion reached is that these decisions are actually based on the constructions held about older adults with mental health difficulties. Lee *et al.* (2003) found that trainee Clinical Psychologists perceived older adults to be more resistant to treatment, or unable to change. They also found a commonly held belief was that change is pointless, with the elderly having little time to benefit, as 'ultimately they die…' (pp.87). With these views being held by some of the future Clinical Psychologists in this country, and similar views evident within the general population, the likelihood is that prejudice towards older adults will continue in the immediate future.

It is apparent that the constructions we hold for adults with mental health difficulties and older adults with the same concerns are different. Resultantly, there is a bias in the services offered to individuals with mental ill health depending on their age. As has already been stated mental illness in later life might go undiagnosed due to some older adults not presenting themselves to services. Another scenario, supported by

Mackenzie, Gekoski, and Knox (1999), is a lack of referrals for older adults to mental health services. Therefore, those individuals and their families, who are entitled to help, services and treatment, are being overlooked and denied this access because of an age-bias that is apparent in dealing with mental health problems in Western society.

The need for psychiatric diagnosis across the adult life-span

At present the labelling system is such that older adults are generally viewed negatively, with the majority of difficulties experienced seemingly attributed to the ageing process alone. Therefore, possible underlying pathological psychological causes are not considered. For these to be acknowledged it appears that a psychiatric diagnosis is warranted, with Fee (2000) stating that for a mental illness to be recognised as 'real' it has to be medicalized. This would then allow the individual access to the relevant services which might help them in coping with, and overcoming, the presenting problems.

However, a diagnosis alone does not mean that the older adult will necessarily receive the same treatment a younger adult might. Many professionals have been found to adopt a pessimistic stance toward the elderly's ability to change, or make progress, and therefore avoid working with older adults and their problems (Lebowitz & Niederehe, 1992). Consequently, even though it appears that an older adult needs a psychiatric diagnosis to have a chance of receiving the necessary treatment and support to which they are entitled when suffering with psychological difficulties, this does not mean that they will receive adequate services.

This is in contrast to adults of working age who, in my experience, tend to be referred to mental health services more freely, often resulting in long waiting lists. I am of the opinion that adults of working age are too readily assigned a psychiatric diagnosis. The result of which leads to more negative consequences than positive, for example: unemployment, insurance implications, and negative stigmatism. Our constructions of the world again come into play here with the label 'mad' often heard in society to describe someone of adult working age who presents with symptoms which are not deemed 'normal' by society. In contrast, someone who is in later life and presents in a similar fashion might be referred to as 'just old'.

Conclusion

An exploration of 'psychopathology' has revealed that as individuals and a society in general we hold constructs which ultimately shape our perceptions of others, and in the case of this essay, those suffering with a 'mental illness'. Constructs are indeed very powerful things because they influence how we treat people without us having any concrete evidence on which to base our views. Therefore, the study of psychopathology is adversely affected by the constructions we hold.

Western societal influences

An example of a construct used in Western society is that of schizophrenia, which dictates that someone who admits to hearing voices is generally regarded as suffering with auditory hallucinations. As a result of this we perceive this person to be in need of mental health services, and a psychiatric diagnosis is assigned to the individual. In other societies/cultures however, hearing voices is held in great esteem as evidence of higher powers.

Due to the ever-increasing exposure the public has to images of mental distress, and to psychological ideas, we are becoming a nation all too ready to pathologize our experiences, and attach labels to ourselves. This is very much in keeping with the dominant medical model of our NHS. However, when it comes to mental ill health there appears to be a discrepancy between adults of working age, and those who are aged 65 years and over. Not only is there ageism towards the elderly, in that later life is generally viewed as a negative experience, one equated with diminishing roles and decreasing physical/mental health. But additionally, in some quarters there is an ageist attitude toward working with those older adults who present with symptoms indicative of psychological difficulties.

Psychiatric diagnosis

Therefore, it appears that society is less likely to psychopathologize the symptoms displayed by older adults, instead viewing the difficulties suffered as a natural consequence of ageing. However, even when a psychiatric diagnosis is made (which in itself carries stigmatizing connotations), the older adult is still not guaranteed to be offered the necessary mental health support, or psychological treatment. This appears

to be in direct contrast to the experiences of adults of working age who it seems are ever-increasingly referred to mental health services.

Diagnostic criteria

The DSM-IV-TR is the main diagnostic criteria used in our society for diagnosing psychiatric disorders, yet there is no adequate normed data for older adults. This means that the diagnosis of psychiatric symptoms and conditions in older adults is problematic because even if symptoms vary with increasing age the measures used do not account for this and would not accurately identify them. As a result, many older adults suffering with mental illness might go undiagnosed, to the detriment of their health as they are not given access to services which might offer them help. Consequently, it is felt that in order for older adults to be better served in terms of mental health concerns the current diagnostic criteria needs to establish normed data for this age group. This will then ensure that the needs of the whole UK population are better met, taking into account individuality, and variation in symptoms, across the adult life-span.

Tackling ageism

As has been outlined above there is a discrepancy between different cultures with regards to the value they place on their elderly. This variation can be attributed to the constructions that particular societies hold towards older generations, and is based on the experiences, and the views that those people are subjected to. At present the National Service Framework (NSF) for older people (Department of Health, 2001) is trying to eradicate ageism as outlined in Standard One of the document ('root out age discrimination'). It is apparent that five years on ageism is still present, yet with the NHS recognising the problem and taking steps to address it the message should filter down throughout those working with the elderly, and hopefully reach the general population.

As society becomes more attuned to working with older adults and understanding later life, so constructions held will gradually change. Clinical Psychology as a profession can help change the public's perception of old age by ensuring adequate services are available and offered to older adults. Further research can also be undertaken and disseminated, highlighting the effectiveness of psychological

treatments with the elderly. This will demonstrate to the wider population that mental illness in old age is not something which should be tolerated, and essentially is no different to work carried out with younger adults. As a result, it can be envisaged that over time the concept of psychopathology will be better understood. This will hopefully lead to all adults, no matter what their age, being treated with respect, and more in keeping with the evidence base, instead of society's lay constructions.

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Essay 2

Discuss the use of systemic and psychodynamic approaches for people with learning disabilities. What are the potential dilemmas and challenges faced by a clinical psychologist when using these two approaches with learning disabled people, and how can they be addressed?

Year 2

Student 05108137

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Discuss the use of systemic and psychodynamic approaches for people with learning disabilities. What are the potential dilemmas and challenges faced by a clinical psychologist when using these two approaches with learning disabled people, and how can they be addressed?

In 1904 Sigmund Freud suggested that people with a cognitive deficit would be unable to benefit from psychotherapy (Fidell, 2000), and this seems to have remained a common belief until recent years. In 2003, Arthur acknowledged that the emotional lives of people with learning disabilities (LD) have traditionally been paid scant attention. The reason for this, Arthur suggested, was due to institutionalization, where adults with LD were 'out of sight and out of mind' (Whitehouse, Tudway, Look & Kroese, 2006). Mundy commented in 1957 that it was often assumed that because of limited insight and poor verbal development psychotherapy with people with LD was not recommended. However, Mundy went on to draw on research by Saranson (1952), Cotzin (1948), Thorne (1948) and Fisher and Wolfson (1953) to demonstrate the effectiveness, both with individuals and groups, of psychotherapy with this client group (Sinason, 1992).

The Department of Health's (DoH) white paper 'Valuing People' (2001) laid out the key principles that we should all strive for in the lives of people with LD. These were rights, independence, choice, and inclusion. This paper aimed to ensure that people with LD have the same right to access mainstream health services as the rest of the population. These values lead on from the standards outlined for all working aged adults by the National Service Framework for Mental Health (MHNSF) (1999). Standard Two of this document stated that any service user who contacts their primary health care team with a common mental health problem should be offered effective treatment, and specialist services if need be. Therefore, there is no reason why a person with LD should not receive the same mental health care as any other adult of working age.

The British Psychological Society's (BPS) briefing paper on services for people with learning disabilities (2006) outlines what should be expected from the core psychological services. This paper puts forward that one aspect of direct work with this client group includes individual, family, or group therapy, from a therapeutic

approach that is suited to meet their individual needs. Hence, it can be surmised from the DoH and our own governing body that as a profession we should be offering a range of therapeutic services to any client who presents to services, whether they have a LD or not. In fact, the BPS, in their Good Practice Guidelines for trainee Clinical Psychologists working with clients with a learning disability (2006), state that upon finishing training a trainee Clinical Psychologist should have developed an ability to adapt psychological interventions to meet the needs of the client and their carers. Thus, we should be applying a range of psychotherapeutic approaches to clients with a LD.

This essay will discuss two of the core psychotherapeutic approaches to interventions offered by Clinical Psychologists within the NHS, systemic and psychodynamic approaches, and their application within the field of LD. Historically, behavioural methods have been used most frequently with this client group (Hodges, 2003). However, in recent years there has been a growing awareness of the application of alternative interventions, such as cognitive-behavioural therapy, person-centred, and psychodynamic methods (Willner, 2005). This essay will argue that the use of systemic and psychodynamic approaches are wholly applicable to people with LD and, that by not offering these services people with LD are actually being denied their right to access services available to the general population. There are certainly issues to be raised concerning the potential challenges and dilemmas Clinical Psychologists face when undertaking these approaches with this client group, however, possible solutions to these issues will be presented. The essay will conclude with a summary of the argument, a confirmation of the position this essay takes based on the evidence presented and, will include personal reflections from the author on the process of writing this essay.

David Brandon in 1989 wrote that 'Counselling with people with learning difficulties…can help devalued and marginalised people feel much more human, valued and worthwhile' (cited in Hodges, 2003). This was written when normalization (Wolfensberger, 1972, 1983, cited in Baum & Lynggaard, 2006) was affecting the way society approached work with people with LD. The ethos of this movement was that people with LD should be allowed the chance to live as 'normal' a life as possible, within the local community. A result of normalization was the development

of a range of client-focused therapies that had previously been unavailable to people with LD.

The systemic approach

One of these therapies is the systemic approach, which is often referred to as family therapy because of the focus on relationships, 'to the self, to others, to wider culture, across time (past, present, future), and across contexts' (Davies-Smith, 2006). Bateson and colleagues (1959) offered a theoretical framework for family therapy by combining ideas from communications theory, systems theory, and cybernetics (Davies-Smith, 2006). The underlying principle of the systemic approach is that the distress experienced by the individual is no longer seen as being 'the product of their psychology' (Vetere & Dallos, 2003, p.7), but instead the problem lies within the system of which the individual is a part. Therefore, the emphasis is on exploring the relationships between members of that system and the lines of communication that take place.

Baum *et al.* (2001) identified the neglect of systemic issues in work with LD clients, and therefore, a lack of outcome research. However, they have found the systemic approach to be very useful in understanding and responding to the difficulties faced by adults with LD and their families. Baum (2006) reports the growth of interest in applying systemic approaches to this client group and their families, within the past decade. However, she also comments that therapy outcomes still need to be developed, and appropriate ways of evaluating this approach are yet to be established.

Specific aspects of systemic approach

Traditionally the systemic approach explores family scripts across generations, looking for emerging historical themes. However, when working therapeutically with people with learning disabilities the content is best understood when it is within the 'here and now' domain (Fidell, 2000). It is common for families to come to services having lived with the current situation for many years, a lot longer than is typical in other client groups. Consequently, the problems faced by the client and his/her family might very well be ingrained and therefore, working on solutions to the problems encountered on an immediate level is often the best option (Fidell, 2000).

The pace of therapy will be slower in this client group and it is important to make adaptations to the approach to ensure engagement of the person with LD is maximised. This can be achieved through specific techniques to make the therapeutic process more concrete (Goldberg *et al.* 1995, cited in Baum & Lynggaard, 2006). Fidell (1996, cited in Baum & Lynggard, 2006) described "circular showing", based on the common systemic technique of circular questioning, which uses role plays, drawings, symbols, and visual aids to simplify the way relationship questions are posed to people with LD. This allows the individual to be included in the interaction, as the cognitive demands of the conversations have been reduced.

Baum and Lynggaard (2006) suggest that the systemic approach may offer a number of advantages over individually focused interventions. One advantage is the ability to help families cope with life-cycle transitions. Life-cycle transitions within families where someone has a LD are usually out of alignment with those presented within the life-cycle framework (Carter & McGoldrick, 1989, cited in Baum & Lynggaard, 2006). For example, stage seven of the framework is the 'launching' of children, where offspring leave the family home. This is likely to be different in families with an individual with LD, and may not happen at all. When a time of transition emerges, it can often affect the homeostasis of the family due to the demand of a change in how the family interacts, and the family's previous routines/behaviours are disturbed. Systemic therapy/family therapy considers the family life-cycle as an integral part of its approach and, therefore, these difficulties can be appropriately addressed within this model of therapy. A second advantage is the consideration of the wider care system (Fidell, 2000, cited in Baum & Lynggaard, 2006). Mitchell and Sloper (2000, cited in Baum and Lynggaard, 2006) outline the usefulness of the systemic approach in negotiating the complex system of relationships and communication pathways between different parts of a client's care package, which can often be confusing for family members. The parties involved at any one time might include day services, voluntary sector services, a social worker, a GP, a psychiatrist, and a number of health care professionals. Therefore, the systemic approach does not have to solely work with family members, but can also invite different parts of the system into the therapy room in order to help facilitate the therapeutic process and aid understanding amongst all concerned.

Sometimes it might become apparent that the family of the client with a LD themselves have psychological problems, which are affecting the individual (Council Report, 2004). These might include a feeling of guilt by one, or both, of the parents for having a child with a disability. There might be issues with sibling jealousy, or envy, of the attention given to the individual with LD, which might result in the parents having to cope with a lot more besides the needs of the client. A systemic approach would allow each member of the family to have their turn to speak and to try to move the family on together, helping them understand each other better and problem-solve solutions together.

However, the application of systemic principles to this client group does not have to be confined to the therapy room. Jenkins and Parry (2006) have developed 'Network Training' (NT), which involves working with the support network in a systemic manner, usually over the course of a day. The authors comment on the pertinence of applying systemic principles, both theoretical and practical, to clinical work with the LD population. They feel that when the system of a client is brought together that systemic issues often arise. The ethos of NT allows multiple perspectives to be recognised and valued, and the facilitator takes a stance of openness and curiosity. NT is influenced by the Milan school of family therapy, utilizing techniques such as hypothesising, circularity and neutrality. This enables a narrative to be developed about the system and how it is functioning. Additionally, solution-focused discussions allow the client's abilities to be identified and built upon, rather than their disabilities being the focus. Within my clinical practice, I myself have seen the benefits of applying systemic principles to this client group in this manner, having been part of the service where this model was developed. The change in narrative concerning a client and their 'problem' can be quite profound following a day of thinking systemically about the client and their system. I have found that carers and family members usually leave the session with a renewed sense of hopefulness and enthusiasm to explore all possible angles in moving the situation forward.

Challenges/Dilemmas and ways to overcome them

However, as useful as this approach is there are also some challenges that can arise when adopting this way of working. Gathering together all those who made up the client's system often proved difficult. However, with enough notice and planning,

care staff managers and day centre staff were usually able to supply the majority of the team who worked with the client. For those who were unable to attend, a summary of the main points discussed during the training was provided to each part of the system, so that the information could be shared with the relevant people.

Another challenge that often materialised was trying to affect change on the negative language used regarding the client, often through a lack of understanding, for example, as to the reason for challenging behaviour. This is a challenge faced not just within NT but also within systemic work as a whole. Sometimes families/carers might use language that is quite negatively laden towards the person with LD. This can sometimes result in the client being made a scapegoat, and a blaming, problem-saturated narrative is often heard (Baum & Lynggaard, 2006). Within sessions, the therapist may be faced with a dilemma, unknowingly colluding with, and reinforcing, the negative perception of the client, or work towards empowering the person with LD (Fidell, 2000). In working to change the narrative held about the client the therapist can work towards highlighting the person with LD's strengths, abilities and their resources within the 'system's' thinking.

It is also important to give the client an equal voice within sessions. This in itself poses a challenge as the client might not be able to fully articulate themselves verbally. Sinason (1992, cited in Baum & Lynggaard, 2006, p.61) highlighted the fact that people with LD are '…often accomplished in communicating their issues through metaphor and story', which is one way of engaging clients to obtain their 'voice'. Another way of supporting the client to be a part of the conversation is to make use of Vygotsky's (1978) 'scaffolding' (Baum & Lynggaard, 2006). This enables a picture to be built up over time of the client's answers to questions, which are broken up into smaller segments. For those clients who do not have verbal speech and have very severe LD Iveson (1990, cited in Baum & Lynggaard, 2006) suggested asking a series of questions that invite people within the system to take on the role of speaking for the person with LD from what they imagine to be their perspective. Iveson believes that creating a position in this way may allow a new understanding to be developed and possible opportunities for action to be created.

The nature of LD is that the difficulties faced are long-term, and for that reason, ending therapy can be difficult for the client and their families/carers. There is some argument that because of the lifelong nature of LD that systemic work should be open-ended, more along the lines of a GP surgery model (Fidell, 2000). However, that debate is not one this essay can cover. In terms of overcoming the potential difficulty faced by the therapist in ending therapy, defining indicators of success at the beginning of therapy would encourage the system to be reflective about their own progress and may help in empowering therapists and families to bring the therapeutic relationship to a successful end.

Although there are certain issues which pose a challenge to therapists when using systemic approaches with this client group, this essay has presented strategies to overcome these potential difficulties. Based on the literature available, the opinion of this essay is that systemic approaches offer a useful method of engaging clients and their system in order to work collaboratively in achieving goals set as a collective.

The psychodynamic approach

Within the literature on psychodynamic approaches with LD clients, there is also reference to psychoanalytical work. For the purposes of this essay, these two approaches will be referred to as one as they have the same underlying principles. Therefore, both will be referred to where relevant for the purposes of arguing the case for using them with this client group.

The psychodynamic approach is the oldest approach to trying to understand the causes of human suffering, and to attempt to alleviate this anguish (Seager, 2007). Freud is regarded as the founder of the psychoanalytic theory in the late 1870s (Psychodynamics, 2007), with an emphasis on the inner drives and motivations people have, which take form in our behaviour. Simpson and Miller (2004) comment that most psychoanalytic psychotherapists today regard their role as one of making contact with their clients' emotional experience at an immediate level within the session. This is achieved through observation of the clients' behaviour, including their speech and by paying attention to the feelings evoked within themselves by their clients (counter-transference).

In 1979 Neville Symington, a Clinical Psychologist and psychoanalyst at the Tavistock Clinic, London, treated a man with mild LD. He is regarded as one of the first psychoanalysts to use this approach with clients with LD. Symington commented that 'since handicapped patients had conscious and unconscious processes at work that could be enriching or debilitating, they might need access to psychoanalytical treatment just like the rest of the population' (Sinason, 1992, p. 6). Following Symington's work at the Tavistock Clinic, a specialist service specialising in applying psychodynamic methods to people with LD has developed. A survey by Nagel and Leiper (1999) showed that 41% psychologists working in the UK felt that they had some proficiency in applying psychoanalytic approaches to their work with people with LD (Hernadez-Halton *et al*., 2000), which demonstrates the growth of using this approach with this client group.

As well as Clinical Psychologists adopting psychodynamic approaches, therapies such as art therapy, drama therapy and music therapy all have psychodynamic principles underlying their work. The emphasis in these therapies is on the unconscious processes that are played out within the therapeutic relationship and through alternative means, such as expression through art, dramatic expression, and musical experiences (Council Report, 2004).

Specific aspects of the psychodynamic approach

Many of the alterations needed when applying this approach with people with LD are similar to those discussed within the systemic approach. For example, the therapist might need to simplify their language, and they would need to take into consideration the client's developmental level, thus, being flexible with their sessions and using non-verbal materials where necessary.

Additionally, the use of transference (the projection of the client's feelings onto the therapist) and countertransference needs attention when working psychodynamically with this client group. Johnson *et al.* (2003) highlighted the need for boundaries to be established at the beginning of therapy, with clarification of the therapeutic relationship important. Hernadez-Halton *et al*. (2000) also felt transference was significant within this work, and they were mindful of giving transference interpretations to sensitive clients. Instead, they might decide to use the feelings they

notice within therapy, but without making them explicit to the client (Whitehouse, Tudway, Look & Kroese, 2006). Hodges (2003) develops this point further by suggesting that due to the impairment in verbal communication many clients with LD have, the process of transference can take on greater importance. The unconscious communication that takes place within the therapy room can tell the therapist a significant amount, without the need for words. Therefore, making use of other aspects of communication, such as drawing, eye contact, and gestures is important.

Lee and Nashat (2004) feel that the issues for people with LD are very similar to those of people without LD in psychoanalytic psychotherapy. However, they point out that people with LD have often suffered negative emotional experiences throughout their lives, such as abuse, social stigmatization, and impoverished social networks. They also comment on how an individual with LD can be frozen by the label 'learning disabled' into feeling inferior to others and being dependent on them. This can increase the risk of the client becoming dependent on the therapist, and the therapeutic relationship no longer being three-dimensional, i.e. there is no room between them to allow space to think, explore issues, and be creative, which is an important aspect of psychodynamic psychotherapy.

An important issue within psychodynamic work with people with LD is the issue of whether the client feels contained. Bion (1962) emphasised the importance of the mother in providing the infant with a containing environment. This allows the infant to project all their distressing feelings into the mother, so that she can process them and return them in a more digestible form. Bion commented that people with LD might not have had this containment (Hodges & Sheppard, 2004), which can lead to an impairment in the emotional and cognitive development of the infant (Miller, 2004). Bion's notion of an infant feeling contained, from which they are then able to grow developmentally has similarities, in my opinion, to Bowlby's (1979) concept of a 'secure base'. Bowlby emphasised the importance of the early mother-baby relationship in his theory of attachment. Having a positive relationship with its main carer gives an infant the security to explore its world, and therefore to develop (Hodges & Sheppard, 2004). This can potentially have implications in the therapeutic relationship if the client does not have that internal container, or secure base, from which to explore and develop. It is possible therefore, that the therapist must provide

this containment, in order for the client to make progress, within the therapeutic relationship. However, this in itself could create a potential challenge when therapy concludes as the client is losing their secure base, and a (possible) close attachment figure. Therefore, as described above, Johnson *et al.* (2003) have identified the need to establish boundaries regarding the therapeutic relationship at the outset of therapy. The therapist might also want to ensure that the client has a support network around them, such as family or carers, in order to provide the long-term containment needed, once it has been established initially within therapy.

Outcome research

The outcome studies for psychodynamic psychotherapy with people with LD that have been published have predominantly been single-case studies (Hodges, 2003). However, there have been some studies demonstrating positive outcomes following psychodynamic psychotherapy. Beail and Warden (1996) found a significant decrease in psychological symptoms and an increase in self-esteem at the end of therapy and at three months follow-up, when psychodynamic psychotherapy was used with people with mild to moderate LD. Bichard, Sinason and Usiskin (1996) undertook a three-year study of eight adults with LD who received long-term psychoanalytic psychotherapy. They found that seven of the eight had improved, and carer interviews reported a decrease in client symptoms. Beail (1998) studied 25 men with LD and behavioural problems who engaged in psychodynamic therapy. At the end of treatment, and at a six-month follow-up, a significant decrease in aggressive behaviour was reported (Hodges, 2003). Therefore, even though there are limited outcome studies in the literature regarding psychodynamic psychotherapy with this client group, the studies that have been carried out suggest that positive gains are made.

Challenges/Dilemmas and ways to overcome them

When working psychodynamically with this client group the therapist is often faced with the challenge of what Sinason (1992) refers to as the 'secondary handicap'. This is when the person with LD adopts a 'defensive stupidity', which is a defensive use or abuse of their disability, which can in itself be more powerful than the original handicap. This defensive position is created out of the feelings and beliefs the individuals have as well as the reactions of others to them (Hernadez-Halton, *et al.*

2000). A quote from Sinason (1992) which captures this secondary handicap within a therapy session is: “the feelings he evoked in me at that moment made me realise that the twisted postures he took up were a terrible self-made caricature of his original handicap, so he could not be seen as he truly was” (p.119). This secondary handicap can pose difficulties when assessing this client group for psychotherapy in knowing how much is the original LD an how much is secondary to that. Sinason (1992) comments that sometimes dealing with the reality of disability can be too much to bear and that is when the secondary handicap emerges. The therapist must acknowledge the limitations faced in life, their own, as well as those of the client with LD. It is often the case that people with LD receive other people’s projected feelings of limitation, rejection and other negative thoughts.

Therefore, Bion’s (1962) ideas of containment are particularly relevant in addressing this challenge within therapy. In order to overcome this secondary handicap the therapist must be willing to tolerate the client’s unbearable thoughts and feelings, and hold them for the client. If the therapist is unable to do this, then the client is vulnerable to experiencing greater distress and anxiety (Simpson & Miller, 2004). The therapist must draw upon their feelings of countertransference in order to identify the client’s unconscious feelings and projection. If the therapist is then able to demonstrate to their client that they are aware of their anxieties and negative feelings, it allows the client the capacity to process their own emotional experiences and to begin to establish a true sense of self (Lee & Hashat, 2004). However, what is very important for the therapist is that they are self-reflective and in touch with their own feelings, especially towards their clients. This will ensure that the therapist is able to identify the countertransference, rather than mistaking it for what they themselves bring to the room with their feelings, prejudices, experiences etcetera.

Within psychodynamic psychotherapy, therapist interpretations of what their client gives them, in terms of words, body language, transference and countertransference, play a significant part. Rycroft (1968, cited in Simpson & Miller, 2004) described interpretations as aiming to ‘increase self-awareness and therefore facilitate integration by making the person conscious of the processes within himself that were previously unconscious’ (p.27). However, when working with clients with LD caution must be exercised as to whether the interpretations are shared or not, depending on the

client's cognitive capabilities. Simpson and Miller (2004) used their feelings of countertransference to decide whether an interpretation was helpful or necessary. Therefore, there is a heavy reliance on countertransference feelings in all aspects of psychodynamic psychotherapy.

Another area where countertransference plays an important role in overcoming a challenge within therapy is when tackling the negative internal voice that a person with LD can sometimes have. The cognitive impairment acquired through having LD is not the only aspect that affects an individual's growth and development (Miller, 2004). The internal voice, referred to as the ego-destructive superego within psychodynamic work, is a constant reminder to the person with LD, at an unconscious level, that they are not the child their parents wished for. This can lead to exclusion from all relationships, as the individual internalizes this reminder and projects it into all other relationships. Within therapy, the therapist might become aware of this projection through uncomfortable countertransference feelings. An awareness of these feelings allows the therapist to monitor the relationship and help the client see what is happening. If the therapeutic relationship develops then the client can modify the internal belief they hold and not allow it to project onto further relationships.

An important issue that a therapist must address in psychodynamic psychotherapy is the process of ending therapy. It is likely that throughout life a person with LD has experienced loss and rejection. The ending of therapy could be seen as an additional loss or rejection on the part of the client. Historically, people with LD were not thought of being able to form close emotional attachments (Oswin, 1981, 1991, Yanok & Beifus, 1993; Mattison & Pistrang, 2004, cited in Simpson & Miller). However, work by Mattison and Pistrang (2000, Mattison & Pistrang, 2004) provided evidence that clients with LD were able to form close attachments to their keyworkers. It is possible therefore, that clients with LD will form a close attachment to their therapist, with whom they share a unique, often deeply emotional experience. Consequently, sensitively planned endings to therapy are vital to ensure that the client is able to continue to trust others and form new relationships. Mattison & Pistrang further suggest that endings can ultimately empower clients; that with preparation and support clients are able to adjust to the loss and develop new coping skills for future relationships.

Conclusion

This essay has presented the case for using systemic and psychodynamic approaches to therapy with clients with LD. In line with the normalization movement, and the 'Valuing People' document, people with LD should have the same opportunities as the rest of the population. This means that whatever therapies are available to those within mainstream mental health services should also be accessible by people with LD. This essay has outlined that although the literature is small it does demonstrate the positive gains that can be made using systemic and psychodynamic approaches.

There are additional points and issues that could have been raised; however, the capacity of this essay did not allow an all-encompassing review of these two approaches. It is the belief of this essay though that the possibilities for growth and development within the client, and their families/carers, far outweigh the need to overcome challenges and dilemmas faced by adopting these ways of working with this client group. In fact, as has been outlined above, the challenges faced by the therapist actually offer an opportunity to strengthen the therapeutic relationship, and might aid the client in their lives away from the therapy room.

Through writing this essay, I personally have gained impetus to be more creative in my practice, not only with people with LD, but also with other client groups. I have also become more aware of listening to my feelings (countertransference) within therapy with this client group at an immediate level, rather than it being an intermittent after-thought, and using this in sessions where it feels appropriate. With the writing of this essay I feel I have gained a lot of knowledge that I might not have otherwise developed, especially with Sinason's (1992) concept of 'secondary handicap', and was actually able to offer that as an opinion in a recent multi-disciplinary case discussion.

Within my own clinical practice, I have used systemic principles with my involvement in NT and do try to adopt systemic ways of working when working with a client and a carer/family member within the room. However, to date, thinking psychodynamically about this client group is something I have been interested in doing, but have not had enough knowledge. This essay has given me an insight into

the potential for working more at an unconscious level with this client group, and the avenues to explore further should I decide a psychodynamic perspective is suited to a particular client's case.

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SMALL SCALE SERVICE RELATED PROJECT

Satisfaction of carers with services offered by a Community Mental Health Team

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ABSTRACT

This project investigates whether carers are being given the service deemed necessary by Government guidelines, within a Community Mental Health Team (CMHT) in North Hertfordshire. The carer contacts were made between June - September 2006. A questionnaire was designed which addressed carers' experiences of the Carers' Assessment (CA) they had received, and their overall satisfaction with the CMHT. Thirteen interviews were conducted and four mailed questionnaires completed, with 19 participants in total (two questionnaires filled out by two people each).

The overall general theme of the findings was one of satisfaction, with 84% of participants reporting feeling either very satisfied (42%) or satisfied (42%) with their overall experience of the CMHT and the CA. This was supported by the qualitative data which again had an overall emergent theme of satisfaction with the services offered, the support received and the experience of the CA. This finding corroborates research conducted by the Social Services Inspectorate in 1995 which found that carers' were generally satisfied with both the process and the outcome of an assessment when it was carried out.

The data from this study can be used to ensure the CMHT is meeting the requirements of carers in line with Government guidelines, which on the whole at present it appears to be doing. However, a few issues were raised which the team might look to address, such as a lack of communication amongst health professionals involved in a case, and that not all participants felt their physical (23%) and mental health needs (12%) were addressed in the CA. Clinical Governance is something that all NHS staff are bound to, and as this project will be shared with the team it can be used as a way of ensuring clinical practice is continually monitored and improved.

INTRODUCTION

It has been reported that at any one time approximately one adult of working age in every six is suffering with some form of mental illness (Mental Health National Service Framework, (MHNSF) 1999). The majority of these people are cared for by their G.P. and the primary care team in their area. However, sometimes specialist advice/input is sought and so generally nine people out of every 100 cared for by their G.P. will be referred on to specialist services (MHNSF, 1999). One of these specialist services is a local community mental health team (CMHT). CMHTs provide the core of local specialist mental health services, and are multi-disciplinary in nature.

The team involved in this project

The CMHT involved in this research project was made up of Consultant Psychiatrists, Senior House Officers, one Clinical Psychologist, one Carers Lead, and a number of Community Psychiatric Nurses and Social Workers.

Standards of practice

The standard of practice carried out within a CMHT is set by the National Service Framework (NSF) for Mental Health (MHNSF). NSFs are developed by the Government to set standards for key issues within our public health system, the National Health Service (NHS), and also outline how these standards are to be met. The 1999 MHNSF acknowledged the role that informal carers play in the lives of those living with a mental illness, and identified that caring for an individual is a very demanding role. Standard Six of the MHNSF 'Caring about carers', is dedicated to ensuring the needs of carers themselves are addressed, in order to enable them to continue doing the valuable work that they are doing by supporting a relative or friend who has a mental illness.

It was Sir Roy Griffiths in 1988 that first highlighted the importance of the role carers play. He also acknowledged that carers have their own needs, some of which are induced by the personal tasks of caring for a loved one, or friend. Sir Griffiths went on in his Government report (Griffiths, 1988) to identify that failing to adequately support informal carers leads not only to a reduction in their own quality of life, and that of the relative or friend that they care for, but that it might also lead to the caring relationship deteriorating, and therefore requiring additional help from services.

Government Acts and documents

It was the Carers (Recognition and Services) Act 1995 that was seen as a major step in taking into account the needs of carers, and the support needed by them. Prior to this Act it was felt that providing support for carers was something very much left to chance ('A matter of chance for carers?' 1998). The Carers Act 1995 stipulated that a carer who provides or intends to provide a significant amount of regular care for a relative or friend was entitled to request an assessment to be carried out by the local authority (LA). This assessment would assess the carer's '…ability to provide and to continue to provide care for the relevant person…' (Carers (Recognition and Services) Act 1995).

However, the MHNSF highlighted that the implementation of this Act was patchy, that assessments were not always being carried out. It was identified that there was variation in the carers' assessments amongst '…individual social workers and care managers, between teams, between areas within authorities, and between authorities' (MHNSF, 1999, p.70). The MHNSF states how a Social Services Inspectorate (SSI) report found few authorities had actually employed the Carers (Recognition and Services) Act 1995 within their mental health services. Another SSI report highlighted how critical the carers of people with mental illness were, it highlighted the lack of consultation they received about care plans for service users, how the carers' own needs were not assessed, and how little support they received (MHNSF, 1999, p.70). However, the finding was that when the assessments were undertaken, generally the satisfaction levels were high amongst carers, both with the process and with the results.

An outcome of these SSI reports has been the development of 'Caring about carers' in the MHNSF (1999, p.69). This stipulates that 'all individuals who provide regular and substantial care for a person on Care Programme Approach should:

- have an assessment of their caring, physical and mental health needs, repeated on at least an annual basis, and
- have their own written care plan which is given to them and implemented in discussion with them'.

These are the standards that CMHTs are meant to meet in line with the Government's recommendations. To coincide with this aspect of the MHNSF the Government also produced the National Strategy for Carers – Caring about Carers (1999). The focus of this document was to recognise the vital role that carers play, and to produce a structure for all services to concentrate on improving their services to carers. There are three main aspects of this National Strategy which are:

- Information for carers – enabling the carers to take a more equal role in the provision of care to the person they are looking after, with the means to provide that care to the standard they desire, accomplished through wider and better sources of information about the help and services available to them,
- Support for carers – from their local communities, in the planning and development of services that they and the person they are caring for use and in the development of policies in the workplace which will assist them in combining work with caring, and
- Care for carers – so that they are able to make choices about how they live their lives, maintain their health and fitness and so that their role can be recognised by policy makers and the statutory sector

(Caring about carers - A national strategy for carers, 2006).

Developing services for carers and families of people with mental illness (2002) is a Department of Health document produced to help guide local mental health services to develop support services for carers of people with mental health problems. It is advised that the document is used alongside Standard Six of the MHNSF and the guidance of implementation of the Carers and Disabled Children Act 2000. Again, this guidance is designed to be used by providers of health and social care mental health services. The Carers (Recognition and Services) Act 1995 has been identified as being the first document to really address the need for carers to be supported in their roles. In addition, the Carers and Disabled Children Act 2000 adds weight to this initiative by giving the local authority power in being able to provide certain services to help the carer in their role and to meet their needs (Carers (Equal Opportunities) Act 2004, Explanatory notes).

The most recent parliamentary act relating to carers and supporting them in their roles is the Carers (Equal Opportunities) Act 2004. This Act makes three main changes to the law aimed at offering additional support to carers and helping to make sure that being a carer does not place them at a disadvantage. First is that LAs are required, in certain circumstances, to inform carers that they may be entitled to an assessment under the 1995 and 2000 Acts. Second, the LA must consider, in their assessment, whether the carer works, is currently pursuing any form of education, training or leisure activity, or wishes to take part in any of those things. Third, the Act supports the co-operation between LAs and other agencies in relation to the planning and arrangement of services that are pertinent to carers (Carers (Equal Opportunities) Act 2004, Explanatory notes).

Why the need to audit carers' experiences?

The 2001 Census reported that 5.2 million people in England and Wales identified themselves as being an informal carer for someone because of long-term physical or mental ill-health, disability or old age (Carers (Equal Opportunities) Act 2004 Explanatory Notes). Approximately 7 percent of these carers are looking after someone who has a mental health problem and is unable to care for themselves independently (Caring about carers, 1999). Therefore, if these carers are not adequately supported in their roles and their own needs taken care of, then the potential break down of these informal caring relationships would have a significant impact on the CMHTs across the country. The Government documents and Acts which have been produced are designed to produce efficient services for mental illness within the community, which means that paid staff are not over-worked and under-resourced, and that informal carers are well supported so that that they can continue doing the invaluable work that they do.

Audit questions

This research is aimed at assessing whether the CMHT being studied in this project is adopting the Government Standards set for supporting carers in their roles.

1) To what extent are carers being offered the carers' assessment they are entitled to?
2) To what degree does this assessment meet the requirements outlined by the Government Acts and papers mentioned earlier?

3) To what extent are carers satisfied with the support they have received from the CMHT?

METHOD

Design

After consultation with the Practice Governance Lead for Mental Health for the Trust, it was decided that ethical approval was not required for this project, and that it was classed as a clinical audit.

A questionnaire was designed (See Appendix A), to be used in a semi-structured interview setting with the participants. The topics included in the questionnaire are:

- Participant demographics
- The Carers' Assessment experience
- The care plan
- Ongoing support
- Satisfaction with the service and other comments

The questionnaire was also suitable to be sent to participants if face-to-face interviews could not be carried out.

Participants

A list of twenty-nine carers of service users of the CMHT was used, which was the current database kept by the Carers Lead in the team. This had names, addresses and telephone numbers (where applicable) for each of the carers currently involved in some way with the Carers Lead.

Two names were randomly taken from this list and contacted in order to be used as pilot participants to test out the interview schedule developed. Once the questionnaire had been revised following the pilot interviews the remaining twenty-seven people were contacted, and asked if they would like to take part in the research. Three people opted not to participate.

Thirteen interviews were carried out face to face, with one interview having two carers present. Three of the carers did not have telephones and so they were sent a

questionnaire through the post, with a stamped self-addressed return envelope. Attempts to contact the remaining ten carers by telephone were unsuccessful and therefore questionnaires were sent through the post for these people also. Four questionnaires were returned through the post, one having been completed by two carers. In total seventeen questionnaires were completed, of which two were completed by two carers.

Analysis

Descriptive statistics were carried out to analyse questions 1-12, and 14, with content analysis used to identify emergent themes reported by the carers in the open-ended questions 13 and 15 of the questionnaire.

RESULTS

SOCIO-DEMOGRAPHIC FEATURES OF THE PARTICIPANTS

AGE RANGE OF CARER	**FREQUENCY**	**PERCENTAGE**
20 – 29	1	5.3
30 – 39	2	10.6
40 – 49	4	21.1
50 – 59	4	21.1
60 – 69	6	31.7
70 – 79	1	5.3
80 +	1	5.3
TOTAL	**19**	**100**

Mean age of carer = 36

CLIENT'S RELATIONSHIP TO CARER	**FREQUENCY**	**PERCENTAGE**
Wife/partner	3	15.8
Husband/partner	4	21.1
Son	6	31.6
Daughter	2	10.5
Child	2	10.5
Other	2	10.5
TOTAL	**19**	**100**

SEX OF CARER	**FREQUENCY**	**PERCENTAGE**
Male	8	42.1
Female	11	57.9
TOTAL	**19**	**100**

TIME SINCE ASSESSMENT	FREQUENCY	PERCENTAGE	RE-ASSESSMENT (if applicable)
4 months	3	15.8	
5 months	3	15.8	
6 months	2	10.5	
7 months	1	5.3	1
8 months	1	5.3	
9 months	2	10.5	
10 months	1	5.3	
11 months	0	0.0	
12 months	3	15.8	
1 year +	3	15.8	1
TOTAL	**19**	**100**	

Mean amount of time since Carers' Assessment = 8 months

TIME TAKEN FOR CARERS ASSESSMENT TO BE CARRIED OUT (from client's first involvement with CMHT)	FREQUENCY	PERCENTAGE
0 months	1	5.3
1 month	1	5.3
2 months	2	10.5
3 months	0	0.0
4 months	0	0.0
5 months	1	5.3
6 months – 1 year	0	0.0
1 year – 18 months	0	0.0
18 months – 2 years	0	0.0
2 years +	12	63.2
Don't know	2	10.5
TOTAL	**19**	**100**

Mean amount of time between initial contact with CMHT and Carers' Assessment = 18 months

Question 7

Assessment Experience

Of the participants who participated in this project, 90% reported that they had received a Carers' Assessment.

7a:

Of those participants who did receive a Carers' Assessment (90% of total), 100% felt they were listened to during the assessment.

7b:

Again, of those participants who received a Carers' Assessment, 94% felt the assessment provided them with relevant information.

7c:

When asked if the assessment answered all the questions the carers might have had, 88% answered 'Yes', 6% felt it hadn't, and 6% didn't know.

7d:

Seventy-one percent of participants felt the assessment gave them confidence about their role as a carer, 18% didn't feel it did, and 12% didn't know.

7e:

In terms of the assessment meeting the carers' specific needs, 71% felt it had, 12% felt the assessment had not met their needs, and 18% didn't know.

7f:

All participants (100%) felt that they were provided with information regarding the services available to them.

7g:

The participants were asked if the assessment outlined the responsibilities of the CMHT. Ninety-four percent felt that it had, and 6% did not think so.

7h:

When asked if the assessment left some questions they had unanswered, 29% of carers felt that it had, 59% felt 'no' that all their questions had been answered, and 12% did not know.

7i:

All participants (100%) felt that their caring needs were assessed during the Carers' Assessment.

7j:

With regards to assessing their physical needs, 77% of participants felt that the assessment had done this. Twelve percent felt that it had not, and 12% did not know.

7k:

Eighty-eight percent of participants felt that their mental well-being had been assessed during the assessment. Six% did not think that it had, and 6% did not know.

Question 7 **Did the assessment…**	**Percent that answered 'Yes'**
a) make you feel listened to?	100
b) provide you with relevant information?	94
c) answer any questions you might have had?	88
d) give you confidence about your role?	71
e) meet your specific needs?	71
f) provide information on what services are available to you?	100
g) outline the responsibilities of the CMHT?	94
h) leave some questions unanswered?	29
i) assess your caring needs?	100
j) assess your physical needs?	77
k) assess your own needs for mental well-being?	88

Questions 8 – 11

Care Plan

Seventy-seven of those participants who received a Carers' Assessment stated that it was agreed that they would receive a copy of a care plan, following the assessment.

Of those participants who were meant to receive a copy 93% did, and 7% did not.

Seventy-one percent of those participants who were aware of a care plan felt that it had been carried out as intended, 7% did not think that it had, and 21% did not know.

In terms of the care plan being reviewed, 14% stated that it had, 71% said that it had not, and 14% did not know. Of those who were aware their care plan had been

reviewed, 50% stated that this happened annually, and the other 50% felt that it occurred as needed.

Question 12

When asked if as carers they received any ongoing support from the team, 65% answered 'Yes' they did, and 35% reported they did not.

Question 14

This question asked for the participants' overall level of satisfaction with their experiences of the CMHT, the Carers' Assessment, the care plan, and services offered. Overall, 84% of participants were either satisfied, or very satisfied (with equal numbers falling into both categories), and 16% reported that they were neither satisfied, nor dissatisfied.

Satisfaction level	Percent
Very satisfied	42
Satisfied	42
Neither satisfied nor dissatisfied	16
TOTAL	**100**

OPEN-ENDED QUESTIONS – QUALITATIVE ANALYSIS

The answers of each participant for questions 13 and 15 were analysed for emergent themes. These were then grouped together into relevant broader categories which had an overall theme. It is these broader themes which are outlined below.

Q13. What additional ongoing support would you find beneficial?

The main themes apparent in the answers to this question fell into three main themes.

1) No carer help required

The first theme to emerge, with 53% of the participants falling into this category, was "no carer help required". This theme had no smaller sub-categories, but a typical response was:

#6 - "No, I know the support is there."

2) Further input required

The second main theme was 'further input required' which 26% of the participants felt would be beneficial. Within this theme 20% stated that they would find an extra service, for the person they cared for, of benefit to them. For example participant P1 said:

"I would like my son to see a psychotherapist."

Other input which participants felt would help them was support with paperwork (10%), receiving information on how best to manage the person they cared for's illness (10%), and having a re-assessment of the Carer's Assessment carried out more regularly (10%).

3) Satisfaction

The third main theme was "satisfaction" which 26% of the participants mentioned. The two sub-categories within this theme were 'satisfaction knowing help is there if needed', which 60% of the participants within this sub-category commented on, and 'satisfaction with current services/circumstances, which 40%, of the satisfaction theme, felt.

Satisfaction with knowing help is there if needed:

#8 – "My sister has gone into care, but it is nice to know I can contact people if I need to."

#15 – "Having the team a phone call away is enough, but **** (Carers' Lead) still rings and writes regularly."

Satisfaction with current services/circumstances:

P2 – "Cognitive-behavioural therapy has just started; we're pleased to have that."

#9 – "I'm happy for the time being."

Question 13 summary table:

MAIN THEMES	PERCENTAGE	RANK ORDER
No carer help required	53	1
Further input desired	26	=2
Satisfaction	26	=2
TOTAL	**110 ***	

*** NB Total equals 110 as some participants fell into more than one category, and some participants are included in a category 'Don't know' which does not add to the qualitative analysis.**

Q15. Please…add any further comments you have about your experience of the CMHT, how satisfied you are with it and, whether you feel there are any areas for improvement.

This question elicited responses which appeared to fall into six separate main themes, with each theme having sub-themes within it.

1) Satisfaction

The largest theme, made up of 68% of participants is 'satisfaction'. The principal sub-theme to emerge, with roughly one-third of the satisfaction responses falling into this category, was 'satisfaction with the current services/situation'. An example of a response in this category is typified by:

P2 – "…Everyone at the moment is terrific. The Early Intervention Carer's Group is excellent…"

Just under a third of the satisfaction category is made up on responses expressing satisfaction with the Carers' Lead, for example:

#15 – "**** (Carers' Lead) makes you feel important."

Just under one-fifth of this theme stated satisfaction with the Carers' Assessment and the outcome of it.

#16 – "…we have been satisfied with the assessment carried out by **** (Carers' Lead)."

Again, just under a fifth of this theme commented on satisfaction with the CMHT.

#8 – "I was very impressed and thankful for the advice and time spent with me regarding caring for my sister…It helped me a lot, and I was under a lot of stress at the time. It was good to know there is so much help when you need it."

2) Dissatisfaction

The second main theme to emerge from the responses to this question was 'dissatisfaction', with 47% expressing an element of dissatisfaction. A quarter of this group were dissatisfied with the inconsistency of staff.

#3 – "There has been a constant changing of people in contact with our son. He has had eight Doctors over 10 years…"

One sixth of this group were dissatisfied with a previous lack of action. For example:

P1 – "I was dissatisfied with the team before **** (Carer's Lead) as I wasn't getting any support. No action was done if I phoned."

Another one-sixth of the participants within this theme commented on a dissatisfaction with the needs of the client and carer not being listened to.

P1 – "I'm unhappy with the Psychiatrist; he didn't listen to my needs, or those of my son."

A further one-sixth in this group spoke of dissatisfaction with the amount of time taken for help to happen.

#4 – "A friendship scheme was offered but there is still no sign six months on and this would be ideal for me wife."

A similar number of participants within this theme expressed dissatisfaction with the communication between Health Professionals/Teams.

#12 – "There is a lack of communication. There doesn't seem to be any co-ordination amongst all parties."

3) Staff involvement

The theme of staff involvement was apparent in the responses of 21% of participants. The two main sub-themes of staff involvement were 'staff turn-over' being problematic, and 'too many involved' (staff). Each sub-theme contained 50% of the participants from this main theme.

Examples of the responses given in this theme are:

P2 – "Staff turn-over hasn't helped over the years and I have a fear for the future."

#4 – "There seemed to be too many staff on the ward at the hospital. There was too much form-filling going on and not enough nursing."

4) Carers' feelings

A fourth main theme to emerge, with 16% of all participants expressing a response which falls into this category, is that of carers' feelings. Within this theme the sub-themes to emerge were:

i) Feeling isolated and in limbo as a carer
ii) Feeling guilty for utilizing services, knowing others are in worse circumstances
iii) Frustration at the outcome of meetings
iv) Having a greater concern for the person they care for than themselves as a carer

Typical responses which were contained within this theme are:

#12 – "I feel guilty for asking for things compared to the greater needs of others. I also feel frustrated that meetings don't always provide the answers required, or take the format I was expecting."

#17 – "I have more concerns about the care my wife received than my own carers' assessment. I felt I was 'left to it' at some times during ****'s worst days."

5) Services desired

Sixteen percent of participants gave responses which were combined to create a theme regarding the services the carers felt would have been beneficial. Three sub-themes were apparent, each containing a third of the participants within this main theme. These sub-themes were:

i) Having practical help for the client, which would help the client in-directly
ii) Being honest and open with carers and clients, which would aid their decision-making
iii) Providing a list of emergency telephone numbers.

6) Information received

The final main theme to emerge, which was made up of 11% of participants, regards the information received by the carers. The two sub-themes within this main category were:

i) Too much information was given at the Carers' Assessment
ii) The carer had some unanswered questions about the illness of the person they cared for.

Question 15 summary table:

MAIN THEMES	PERCENTAGE	RANK ORDER
Satisfaction	68	1
Dissatisfaction	47	2
Staff involvement	21	3
Carers' feelings	16	=4
Services desired	16	=4
Information received	11	6
TOTAL	**179***	

***NB Please note, the total equals more than 100% as a number of participants' responses fell into more than one theme.**

Summary of emergent themes

As can be clearly seen a theme which was consistent across both open-ended questions is one of satisfaction. For these carers they expressed satisfaction with the

service they were currently receiving, the input from the team, and also with the process of the Carers' Assessment.

DISCUSSION

Summary of results

The Carers Act (1995) first highlighted the importance of the role that carers play. Since then, there have been a number of Government documents concerning support for carers. These documents outline the responsibilities of health professionals in ensuring carers' needs are assessed, and addressed, to ensure they can continue to carry out their caring role to the best of their capabilities.

The aims of this audit were to look at the extent to which the guidelines produced by these Government documents are actually being implemented within one particular CMHT, and the extent to which the carers in this locality are satisfied with the services they both receive and are offered.

There were 29 names on the database of carers, who were all contacted either by telephone, or by a posted questionnaire. Thirteen face to face interviews were carried out, with four questionnaires returned by post, (17 questionnaires in total). However, due to two of the questionnaires being completed by two people, there were actually 19 interview schedule responses recorded. The basis of the interview schedule was the principles of the Government documents, in terms of what the Carers' Assessment should be addressing. There were also two open-ended questions which allowed the carers space to state their feelings with regards to how satisfied they were with the services they had received from the CMHT.

It was found that of those who took part in the study 90% had had a Carers' Assessment, with the remaining 10% not having been offered one. So, in response to Question 1 of the audit aims, not all carers are currently being offered the assessments they are entitled to within the team. In terms of the recommendations of 'Caring about carers' (MHNSF, 1999) with regards to assessing carers' needs, 100% of participants felt their caring needs were assessed, 88% felt their needs for mental well-being were assessed, and 77% felt their physical needs were assessed. Of those carers who had received a Carers' Assessment, 77% were told that they would receive a copy of the

care plan, with 93% of these actually receiving it. Seventy-one percent of the carers who were aware of a care plan felt that it had been carried out as intended, with 21% not knowing. Of those aware of the care plan, 14% felt it had been reviewed (50 % annually, 50% as and when needed), and 14% did not know. Therefore, with regard to Question 2, it appears that all participants' caring needs were being adequately assessed, but that some of the other aspects of the carers' lives which impact on their ability to care were not always being assessed as they should have been. Also, not all participants were aware that they should have received a care plan from their assessment. However, even being aware of one did not necessarily relate to receiving a copy. This is another area which does not match up with the guidelines outlined within the Government documents about Carers' Assessments and the support that they should expect.

When asked to rate their overall satisfaction with the CMHT (Question 3), the Carers' Assessment, the care plan, and services offered, 84% of participants were either very satisfied, or satisfied, with the remainder stating they were neither satisfied nor dissatisfied (16%). This supports the finding by a SSI report within the MHNSF (1999) that when carers' assessments were undertaken, the satisfaction levels were generally high, both with the process and with the results.

The participants' responses to the open-ended questions were categorised into main themes which were apparent for each of the two questions. The main theme for Question 13 was that 'no further help by the carer was required' (53% of participants), with the remaining two themes 'receiving further input', and 'satisfaction with current services' both having 26% of participants stating this. Question 15 was categorised into six themes. The three main themes were 'satisfaction' (68%), 'dissatisfaction' (47%) and issues of 'staff involvement' (21%). A dominant theme throughout all the qualitative data is one of satisfaction with current services, and experiences of the team. This finding again substantiates the findings stated in the SSI report in the MHNSF (1999, p.70).

When taking the data from these interviews as a whole the theme of satisfaction is emergent, both with the process of the Carers' Assessment, the results received from it, and with the experiences of the CMHT.

Methodological issues and limitations

It was originally intended to interview each carer in person; however some carers on the database were unable to be contacted by telephone. This was either because they did not have one, or because they could not be reached during office hours. As a result mailed questionnaires were used (with a stamped, self-addressed envelope), but the response rate to this was only 31%. A reminder letter was sent, a few weeks after the initial contact, however, it is possible that the reason for no response from the remaining 69% was opt-out.

It is also possible that the carers felt obliged to be generally positive about the CMHT and the Carers' Assessment, due to fear of recrimination from any negative answers. However, there was no indication of this during the interviews, and the confidential nature of their responses was outlined at the start of the interviews/questionnaires.

Implications for the service and further research

The findings from this project are important to feed back to the team, because they represent that Government guidelines are being addressed, and in the majority of cases being met well. In line with Clinical Governance (the accountability of NHS services to continually improve the quality of their services) the CMHT should always be looking to monitor the standard of their service, and to make improvements as necessary to maintain a high quality of care. This project can address that because the findings show that in some cases the assessment did not always address issues such as physical well-being, and mental well-being of carers. Specific areas for improvement could also be tackled, such as 'better communication between professionals/services' (for example #12), as a result of these carers' responses.

In addition, it would be of interest to interview those carers who had refused a Carers' Assessment, or had not been offered one initially. Finding out their views would help ensure the CMHT is endeavouring to meet the needs of all carers, and would highlight why some carers were not offered an assessment when Government guidelines states that all carers should.

In summary this study has provided an insight into the views of carers of mental health clients of a local CMHT. The author will be presenting the findings from this study to the CHMT where the data was gathered, and copies of this report will be given to the Practice Governance Lead for Mental Health for the Trust involved, the CMHT team manager and the Carers Lead. It is hoped that the information will be useful to the team in terms of how they are currently meeting carers' needs and also to facilitate possible future improvements in their service.

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APPENDICES Appendix A

ALL INFORMATION GIVEN WILL REMAIN CONFIDENTIAL

ABOUT YOU

1. What is your relationship to the person you care for?

(please tick box)

parent ☐ partner ☐ other ☐

child ☐ friend ☐

please specify……...

2. How old is the person/persons you care for? ……

3. Your age? ……

4. Your gender? male ☐ female ☐

5. Do you live with the person you care for?

yes ☐ no ☐

ASSESSMENT EXPERIENCE

6. When were you offered a carers' assessment?

a) Approximate date

……..

b) In relation to length of time following the mental health assessment of the person you care for

……..

7. Did the assessment…	**yes**	**no**
a) make you feel listened to?		
b) provide you with relevant information?		
c) answer any questions you might have had?		
d) give you confidence about your role as a carer?		
e) meet your specific needs?		
f) provide information on what services are available to you?		
g) outline the responsibilities of the community mental health team?		
h) leave some questions unanswered?		
i) assess your caring needs (in order to continue as a carer)?		
j) assess your physical needs (in order to continue as a carer)?		

k) assess your own needs for mental well-being?		

8. Following your assessment was it agreed that you would have a care plan for yourself, describing what help you would receive to carry on as a carer?

yes ☐ no ☐

9. If yes, did you receive your own copy of the care plan?

yes ☐ no ☐

10. Has the care plan been carried out as intended?

yes ☐ no ☐

11. Has the care plan been reviewed?

yes ☐ no ☐

11 b.) If yes, how often has it been reviewed?

……..

12. Do you receive any ongoing support as a carer from the community mental health team?

yes ☐ no ☐

13. What additional ongoing support would you find beneficial?

.....

.....

……..

14. Overall, how satisfied are you with your experience of the community mental health team's carers' assessment, care plan, and services offered to you?
(Please circle)

Very satisfied Satisfied Neither satisfied nor unsatisfied Unsatisfied Very unsatisfied

15. Please use the space below to add any further comments you have about your experience of the CMHT, how satisfied you are with it and, whether you feel there are any areas for improvement

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THANK YOU FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE.

Dear carer,

I am a trainee Clinical Psychologist currently working at CMHT. As part of my training I am required to undertake a project which is designed to help the service in which I work. I have chosen to carry out my research here in and am interested in carers as a group. I have liaised with (Carer's Lead) and am currently in the process of meeting with carers, or contacting them by post if I have been unable to speak to them, asking if they would be willing to take part in my project.

The aim of my project is to look at whether carer's needs are being met in line with the guidelines we as mental health professionals are given. I am also interested in finding out the level of satisfaction carers, such as yourself, have with the service provided to you by CMHT. All participants will remain anonymous, and all answers will be kept confidential.

It is my intention to feed back the general themes from my project to the Team here, so that they are aware of what they are doing well, and what areas they might be able to improve on.

I have enclosed the questionnaire I have designed, which should take less than 10 minutes to complete. I have also enclosed a stamped, self-addressed envelope for you to return your completed questionnaire in. I would very much appreciate your participation in this project as it is only by gathering the views of carers like yourself that our services can be best tailored to meet your, and ultimately the person(s)'s you care for, needs. Your participation would also help me immensely in allowing me to complete this project as part of my training.

Thank you for your time,

Yours faithfully,

Trainee Clinical Psychologist
University of Hertfordshire/ CMHT

LITERATURE REVIEW

Student 05108137

Self-stigmatizing ageism amongst older people using mental health services

Self-stigmatizing ageism amongst older people using mental health services

1. Introduction

This paper will review the current literature about stigma within mental illness, especially that which is adopted by the individuals themselves who have mental health problems. One form of stigma is that which is directed towards older people. There will be an exploration of ageism as a form of stigma, and its particular effects when it is internalized by the individual themselves. The lack of a consistent finding with regards to self-stigmatization and the dearth of stigma research with older mental health users will be also explored.

2. Stigma

Goffman (1963) referred to stigma as a discrediting attribute, which reduces an individual "from a whole and usual person to a tainted, discounted one" (cited in Major & O'Brien, 2005). Crocker (1998) suggested that stigmatization occurs when it is believed that an individual has (or is believed to have) something about them which represents a social identity which is seen as negative within a particular social context (cited in Major & O'Brien, 2005). Research by Allison (1998), Braddock and McPartland (1987), Clark *et al.* (1999), and Yinger (1994) has made links between stigma and its negative impact, such as poor mental health, physical illness, academic underachievement, infant mortality, low social status, poverty and reduced access to housing, education and jobs (cited in Major & O'Brien, 2005).

The majority of studies of stigma have focused on the attitudes and beliefs of the public towards people with mental illness (El-Badri & Mellsop, 2007). The term psychiatric stigmatization refers to incorrectly and inaccurately associating mental illness with something disgraceful or shameful. The term mental illness itself can be regarded as stigmatising, however, the terms mental illness and mental health problems have been used within this review because they are the predominant terms in use within the literature. Research findings suggest that difficulties such as lowered confidence, low self-esteem (Wright *et al*., 2000; cited in El-Badri & Mellsop, 2007), limited social networks (Link *et al.*, 1991; cited in El-Badri & Mellsop, 2007), and diminished quality of life (Rosenfield, 1997; cited in El-Badri & Mellsop, 2007) can all result from psychiatric stigmatization. A survey in 2000, by the Mental Health

Foundation, found that 70% of 556 participants reported either they or their family had experienced stigma and discrimination as a result of their mental illness (cited in Everett, 2006).

2.1 Self-stigma

However, stigma is not just limited to the attitudes and actions of others. Self-stigma is the internalization of negative stereotypes, which can result in people with mental illness and their families adopting attitudes of self-loathing and self-blame (Everett, 2003; cited in Everett, 2006). Self-stigma can result in people with mental illness beginning to expect poor treatment, devaluation and rejection from others.

These beliefs can then lead to feelings of helplessness and hopelessness (Everett, 2006). A number of research studies have found that many people with mental health problems are aware of the stigma towards their group (Corrigan & Rüsch, 2002). It has also been reported that some of these individuals will agree with the stigma (Hayward & Bright, 1997) and apply it against themselves, which results in lowered self-esteem and self-efficacy (Corrigan & Watson, 2002).

Hayward and Bright (1997) also suggest that there is a wealth of evidence demonstrating that those who have mental health problems have very similar stigmatizing views to those of the general public. This perhaps suggests that it is not just being stigmatized that results in self-stigmatization, but also that having these negative attitudes yourself, prior to the onset of mental illness, might result in applying these negative attitudes and beliefs inwards.

Sweeney and Kisely (2003) found the stigma of mental illness amongst older people to be particularly apparent, resulting in barriers to the management of mental health problems (cited in Thomas & Shute, 2006). Yet, Sartorius (2003) stated that stigma and discrimination against older people with mental illness is a seriously neglected problem (cited in Depla, *et al.*, 2005). This is particularly interesting in light of the fact that older adults not only have to contend with having a mental health problem, but they also face the additional negativity of others through ageism. de Mendonça Lima *et al.* (2003) comment on the shame attached to both mental illness and to old age which creates a double stigma for an increasing number of individuals. However,

reviewing the literature highlights an apparent lack of knowledge, understanding and even awareness of this phenomenon (Thomas & Shute, 2006). Of significance is that reducing the stigma of mental illness is now a policy priority across Britain. However, as of yet, none of these initiatives has focused on older adults (Age Concern England, 2007).

2.2 Ageism

Butler (1969) defined ageism as reflecting "a deep-seated uneasiness…a personal revulsion to and distaste for growing old…" (cited in Nemmers, 2004). Palmore (1990) described ageism as 'the ultimate prejudice or the last discrimination' and suggested that 'this form of prejudice is often quite subtle, takes many forms, and is prevalent in nearly every area of society' (cited in Nemmers, 2004). Ageism is commonly attributed to young people and middle-aged adults, however, it is also found amongst the elderly themselves. The Alliance for Aging Research (2003) suggested that ageism is unconsciously a part of the psychology of older people themselves, which can affect medical outcomes. Although it has now been four decades since Butler first coined the term ageism, research into its prevalence and impact on older people has only recently become a focus of interest (Nemmers, 2004). The National Service Framework for Older People (Department of Health, 2001) has its first standard as that of rooting out age discrimination in relation to access to NHS or social care services. However, this document in itself is not enough to tackle the widespread ageism within our society. Especially when there is evidence to suggest that older people themselves are contributing to the ageism within our society.

2.3 Stereotype effects

Levy (2001), one of the most prolific researchers in this field, highlighted that research suggests older people direct age stereotypes inwardly, having been culturally exposed to them for their whole lifetime. In a longitudinal study with participants aged 50 and over, Levy, Slade and Kasl (2002) found that positive self-perceptions of aging in 1975 resulted in better functional health from 1977 to 1995 (cited in Levy, 2003). Another longitudinal study by Levy, Slade, Kunkel and Kasl (2002) found that those older adults who had more positive self-perceptions of aging lived up to 7.5 years longer than those who had less positive self-perceptions of aging (cited in Levy, 2003).

Levy (2000) concluded from her study of aging stereotypes and cardiovascular stress amongst older adults, that negative aging stereotypes contributed towards adverse health outcomes in older people, by acting as direct stressors without their awareness. Levy (2003) also suggested that age self-stereotypes can influence an individual's cognitive process in an unconscious way. This results in elderly people attributing a declining cognitive process to aging rather than to any other cause, and by doing this they reinforce their negative self-stereotype of aging. This can lead to a "self-fulfilling prophecy", when an initially erroneous social belief leads to its own fulfilment (Merton, 1948; cited in Jussim *et al.,* 2000). These studies highlight the impact exposure to stereotypes can have on older individuals, both positively and negatively.

However, the exposure to negative age stereotypes has not consistently resulted in negative consequences for older people. A randomized controlled trial (RCT) study by Pinquart (2002) presented an experimental group of 60 older adults with negative information about competence in old age. It was found that rather than diminishing the older individuals' self-perceptions, these were in fact improved. What was found though was that the experimental group had lower general perceptions of other older adults as a result of their exposure to negative age stereotypes. This suggests that older adults might still hold ageist attitudes towards their peers, but that sometimes older adults might differentiate themselves from their peer group, and see themselves in a more positive light in comparison. Further research by Nosek *et al.* (2002; cited in Levy, 2003) supported the presence of ageism amongst older adults. They found that older people express attitudes towards their peers that are as negative as those expressed by the young toward the old. Levy (2003) stated that the more negative the stereotypes towards old age, the more resistance there would be to identifying with the old.

2.4 Why study ageism from a psychological perspective?

The implications of not wanting to identify with other older people because of stigmatizing attitudes, both from society and from personal beliefs, can have considerable negative consequences for the mental health of older adults. It has been consistently found that older adults greatly underutilize mental health services, even when the need is there (Hatfield, 1999; Qualls *et al.,* 2002; and Robb *et al.,* 2002;

cited in Segal *et al.,* 2005). Therefore, it is important to try and understand why older people who have mental health problems, fail to use the mental health services available to their maximum potential.

Seligman and Elder (1986) reported that internalised negative stereotypes of aging have been found to weaken self-efficacy amongst older people by bestowing them with a pessimistic view of their future development (cited in Crocker *et al.,* 2006). This pessimism might account for some of the underutilization of mental health services. For example, the U.S. Census Bureau estimated the number of older people living in the USA to be approximately 12.7% of the population. However, the proportion of mental health services used by the elderly was estimated to be approximately only 2% of private services, between 4-7% of community mental health services and approximately 9% of inpatient psychiatric care (Hatfield, 1999; cited in Robb *et al.,* 2002).

It is possible that this under-usage is due to older adults not wanting to admit that they need help. Birren and Renner (1979) suggested that older adults believe using mental health services is a sign of personal weakness (cited in Robb *et al.*, 2003). This theory is supported by Lebowitz and Niederehe who proposed that the stigma of mental illness was especially strong in the cohort of older adults in 1992 (cited in Robb *et al.,* 2003). Segal *et al.* (2005) add additional weight to this argument by proposing that many older adults hold these negative opinions towards mental illness and that the extreme stigma and shame that they experience about mental health problems results in them being unwilling to seek appropriate psychological help when they need it. However, there is little empirical evidence to date to confirm these arguments (Robb *et al.,* 2003). Additionally, Nelson (2005) highlighted that very little is known, from a research perspective, about how older adults perceive ageism.

3. Treatment Engagement

In a report from the United States Surgeon-General it was stated that nearly two-thirds of all people with diagnosable mental health problems do not seek treatment (Satcher, 1999), and that stigma surrounding mental illness is among the many barriers discouraging people from seeking treatment (Sussman *et al.,* 1987; Cooper-Patrick *et al.,* 1997; cited in Satcher, 1999). Corrigan (2004) and Corrigan and Penn (1999) add

that the most cited factor inhibiting individuals from seeking psychological help is the stigma attached to seeking treatment (cited in Vogel *et al.*, 2006). Vogel *et al.* (2007) state that is not just having a mental health problem that is a cause for stigma, but also seeking help for that problem. Perlick (2001) comments that self-stigma contributes to the denial of recovery because the messages of helplessness and hopelessness are believed by people with mental illness and they give up on themselves and their future (cited in Everett, 2006). Research has also demonstrated that behavioural goals can be impacted upon by the effects of self-stigma on self-esteem, psychological well-being and self-efficacy. The result being that self-stigma possibly undermines adherence to empirically validated services (Fenton *et al.,* 1997; Sirey, Bruce, Alexopoulos, Perlick & Friedman *et al.,* 2001; Sirey Bruce, Alexopoulos, Perlick & Raue *et al.,* 2001; cited in Corrigan, Watson & Barr, 2006).

In a research study in Australia (Barney *et al*., 2006), 1312 respondents ranging in age from 18-89 years completed questionnaires concerning their likelihood to seek various sources of professional help for depression and the role of stigma in whether they were likely to seek help or not. It was found that both greater perceived stigma and self-stigma had a negative impact on one's likelihood to seek help. Although this study included participants who had themselves experienced mental illness in the form of depression, the study used a vignette, rather than asking for personal experience from the participants.

Vogel *et al.* (2006) developed the Self-Stigma of Seeking Help Scale (SSOSH) because there had been no direct measure of self-stigma related to seeking psychological help. In their study they used a large number of college students at an American University and found that participants who reported greater self-stigma associated with seeking psychological help had less intention to seek treatment for psychological and interpersonal problems. However, this scale is based on prospective behaviour for a hypothetical situation, as no mental health problems were stated as being present amongst the participants. The authors acknowledge that the scale needs to be standardized on a more representative sample in terms of age, socio-demographic variables and clinical problems in order to increase its clinical utility.

Bayer and Peay (1997) highlighted the inconsistency within the literature as to what variables are important in determining help-seeking behaviour for psychological problems. In a study of 142 participants, age range 18-76, it was found that help-seeking intentions were related to specific positive beliefs about the value of the help. This result is line with Ajzen and Fishbein's theory of reasoned action (1975, 1980; cited in Bayer & Peay, 1997). In their study, Bayer and Peay found that 90% of participants had a positive attitude toward seeking help from a mental health professional. Of interest is that personal attitudes toward seeking help were found to be more important than the approval or disapproval of significant others in predicting help-seeking intentions. However, again, this sample was gathered from a community based general practice, rather than mental health service users and the authors did not indicate whether any of the participants had experienced mental health problems.

A survey study of 100 working aged adults under the care of community mental health services in New Zealand looked at stigma, discrimination and quality of life (El-Badri & Mellsop, 2007). Some participants in the study reported that they had tried to avoid or refuse help for mental health problems through fear of further stigmatization, with 80% of the participants worrying that others would view them in a negative light because of their mental illness.

In a study by Segal *et al.* (2005) a sample of 79 community-dwelling older adults (age range 60-95 years), and 96 undergraduate students (age range 17-26), were asked to complete three measures designed to assess their attitudes towards mental illness and a willingness to seek treatment if needed. The results showed that for both age groups an increase in negative attitudes toward mental illness was associated with a lowered willingness to seek psychological help. Of note is that this association was higher among the older adults. However, it should be noted that this study used individuals from the general population, rather than people who actually had mental health problems. Hadas and Midlarksky (2000) investigated predictors of and barriers to mental health service use, in one of the few studies to actually research help-seeking behaviour amongst older adults (cited in Segal *et al.,* 2005). A sample of 319 distressed older adults was used, who had been referred for psychological help. They found that a majority of the sample felt themselves responsible for causing their own problems and for solving them. Segal and colleagues (2005) add that although

negative attitudes towards mental illness would undoubtedly result in a lower uptake of seeking professional help, these constructs have been rarely studied together amongst older adults, and that most studies have not used standardised measures.

Sirey *et al.* (2001) carried out a study looking at perceived stigma as a predictor of treatment discontinuation amongst young and older adults with depression. Newly admitted patients to a psychiatric outpatient clinic were approached who had a diagnosis of major depression. The sample included 63 working aged adults, and 29 older adults, aged 65 years and older. The patients in the two age groups did not differ in the severity of their depression. The participants' perceived stigma was assessed at the beginning of the study and they were followed up three-months later to assess whether they were still accessing the service. It was found that in older patients greater perceived stigma was associated with a greater likelihood of treatment discontinuation. The adjusted odds ratio of a mean stigma score 3 points (half the standard deviation) above the mean stigma score showed that older adults were 1.7 times more likely to drop out, but young adults were 1.3 times less likely to drop out. Therefore, this study demonstrates that perceived stigma toward people with mental illness predicts early treatment dropout in older adults with major depression. No other study to date has demonstrated the impact of stigma on treatment participation and continuation, rather than uptake of services (Sirey *et al.,* 2001). However, this finding needs to be replicated with larger numbers of older adults (Sirey *et al.,* 2001) and with other mental health problems. It is also representing perceived stigma, and not the internalization of stigma by the service users, which is again an area of research which is lacking.

4. Service users' perspective of self-stigma

Corrigan and Rüsch (2002) point out that missing from the literature of treatment underutilization is a clear connection between experiencing stigma and not participating in treatment, which could potentially be due to the lack of this type of research being conducted. Cooper-Patrick *et al.* (1997) also draw attention to the fact that few studies have asked mental health service users their perspectives in trying to understand why certain patients drop out of treatment, or fail to take up a mental health referral.

The Epidemiologic Catchment Area Survey was a multi-site, epidemiological and health services research study in the USA that assessed prevalence and incidence of mental disorders, as well as use of mental health services (Jans *et al.*, 2004). Results from the Yale component of this research demonstrated that individuals with mental illness were more likely to avoid services if they were unreceptive to treatment (for example, agreeing that people with a mental or emotional problem should not seek help) (Corrigan & Rüsch, 2002).

Wahl (1999) comments that the relatively few studies that have gained data directly from users of mental health services about their experience of stigma provide evidence that these individuals do perceive themselves as stigmatized (e.g. Campbell & Schraiber, 1989; Mansouri & Dowell, 1989; Herman, 1993) in addition to experiencing further discrimination and reduced life satisfaction. However, this research is quite dated and focused on general impressions and expectations of stigma, rather looking at real-life experiences. This is possibly because it is difficult to recruit participants for this type of research, and also that researchers might perceive these positive results to be evidence enough. In a nationwide survey of 1,301 mental health service users in the USA, Wahl (1999) studied the experiences of stigma and discrimination. The participants ranged in age from 12-94 years; however, there was a predominance of women in the study and those who classed their ethnicity as 'White'. There were two parts to the study, completion of a consumer experience survey which was completed by all participants, and an interview for 100 respondents to the written survey who were randomly selected. The findings showed that 90% of interviewees felt a lasting impact of stigma experiences, 57% had decreased self-esteem or self-confidence due to stigma experiences, and 14% experienced an increased in problem emotions, again as a result of experiencing stigma. However, this study was again concentrating on perceived stigma experiences, rather than applying this stigma inwardly. It does though highlight the impact stigma can have on individuals' emotional well-being.

The lack of research from mental health users' perspectives, especially with older adults has been well documented within the literature. Yet, there is research which demonstrates that older adults with mental health problems are able to successfully give an account of their experiences in qualitative studies. Research has been carried

which has studied how older adults cope with dementia (Preston *et al.*, 2007), how older adults make sense of their dementia (Langdon *et al.*, 2007), and how living with early dementia is experienced (Harman & Clare, 2006).

4.1 Inconsistent reactions to stigma

However, there is literature which counters the argument of negative effects of aging-stereotypes experienced by older adults, that which demonstrates group identification. Corrigan and Watson (2002) propose that whether one experiences low or high self-esteem as a result of stigmatization from others depends on whether they perceive that negative response to be legitimate, thereby agreeing with the stereotype (see Appendix 1).

If the individual does not perceive the negative stereotype to be legitimate then their self-esteem will remain intact. If that person then identifies with the group being stigmatized (e.g., older adults, or mental health service users) then they will be indifferent to the stigma. However, if they have high group identification the individual will display righteous anger as a result of the stigma. Ossana *et al.* (1992) found in their research that high group identification helps individuals protect themselves from the negative impact of stigma, thereby maintaining their self-esteem (cited in Corrigan & Watson, 2002).

Additionally, the concept of psychological reactance has been suggested (Brehm, 1966), which is when rather than complying with the perceived threat of stigma and having a negative view of one's self, the individual actually rejects the negative evaluation towards them and positive perceptions of self emerge (cited in Corrigan & Kleindein, 2005). The rejection-identification model (Branscombe *et al.,* 1999; cited in Garstka *et al.*, 2004) suggests that perceptions of discrimination can increase group identification for individuals within low status group. Studies show that group members who identified more strongly with their group reported higher psychological well-being that those who did not (Bat Chava, 1994; Branscombe *et al.,* 1999; Phinney, 1990; Rowley *et al.,* 1998; Schmitt *et al.,* 2002; cited in Gartska *et al.,* 2004). In their research, Garstka and colleagues (2004) found that although perceived age discrimination was associated with decreased psychological well-being, that it was also associated with increased in-group identification, which in turn related to

increased psychological well-being. Older adults within the study reported significantly greater age group identification than younger adults.

However, Levy (2003) found that the more negative the aging stereotypes, the more resistance there would be to identifying with the old. With Marshall and McPherson (1994) stating that "most older people exempt themselves from the stereotypes" and strive to distance themselves from those they deem old (cited in Hurd, 1999). Additionally, Brewer (2001) and Tajfel (1981) both suggest that in-group preference, one of the strongest findings in social psychology, does not tend to apply amongst older adults (cited in Levy, 2003).

5. Inconsistency of reports in the literature

From the literature presented thus far it is apparent that there is no clear consensus as to the effect of stigma, whether that is towards mental illness or someone's age. Research suggests that stigma varies in degree, depending on the specific diagnosis and sociocultural group to which the target group belongs (e.g. Lau & Cheung, 1999; Lee *et al.*, 2005; cited in Mak *et al.*, 2007). Mak *et al.* (2007) carried out a meta-analysis on 49 studies, where the stigma was operationalized as internalized stigma across different stigmatized conditions. The meta-analysis studied the relations between stigma and various positive and negative indicators of mental health. The findings demonstrate that the relation between stigma and mental health across the studies had a medium correlational effect size, thereby indicating it is strong enough to be observed in everyday life. However, there was also found to be a publication bias in that the stigma–mental health relation was much stronger in peer-reviewed articles. This suggests that only those studies which show positive relationships between stigma and mental health are being published in peer reviewed journals. The authors of this meta-analysis suggest caution is exercised in interpreting their findings as the majority of the studies they reviewed did not have the constructs of stigma clearly defined, they did not explicitly focus of stigma and mental health, and they used convenience sampling and cross-sectional designs, meaning they had relatively weak internal validity.

6. Measures of stigma and stigmatisation

This inconsistency is not restricted to the results of the studies, however, but also to the methods used themselves. Hayward and Bright (1997) reviewed the literature concerning peoples' attitudes towards individuals with mental illness and found a number of measures had been used. Studies thus far have used:

1) attitude scales, which usually involve ratings of agreement/disagreement with statements about the mentally ill;
2) semantic differential studies, where participants are asked to rate the 'mentally ill' on various qualities, which may then be compared with those of the 'normal';
3) social distance scales, which are questionnaires asking a series of questions about how close, socially, participants would be willing to be with a mentally ill person;
4) vignette studies, which can measure the extent to which the public view various behaviour patterns as examples of 'mental illness';
5) behavioural studies, which are 'real life' studies and have far greater ecological validity.

Again, this review highlights the paucity of research that looks at stigma from an internalized perspective. King *et al.* (2007) acknowledge that various attempts have been made to measure attitudes to mental illness and stigma, but that these have focused on attitudes held by people in the community towards mental illness. They describe the few attempts that have been made to measure stigma held by the service users themselves. An instrument in the USA by Judge (1998; cited in King *et al., 2007*) focused on stigma associated with seeking psychotherapy. Link *et al.* (2001; cited in King *et al.,* 2007) developed a measure looking at the shame and withdrawal felt by people with mental illness. Thirdly, there was the Internalized Stigma of Mental Illness (ISMI) scale by Ritsher *et al.* (2003), which used the thoughts and opinions from focus groups of mental health service users in the USA. The ISMI is a 29 item questionnaire investigating internalized stigma. Although the authors found it to have good internal reliability, and concurrent validity, its test-retest reliability has been questioned (King *et al.,* 2007) due to only being tested with 16 people, and also because the total score seems to have been used for this analysis, rather than each item on the scale.

In 2007, King *et al.* developed The Stigma Scale with 193 users of mental health services in North London, ranging in age from 19-76. The content of the scale is similar to that of the ISMI; however, the larger sample size suggests that the Stigma Scale has better internal validity, with an internal consistency Cronbach's α score of 0.87 for the whole scale. It is also based on British mental health service users giving it additional ecological validity. Although American studies are relevant to understanding the effects of stigma within mental health service users, there are significant differences between the healthcare systems of the United States and Great Britain, such as private versus free national health service respectively. This could potentially result in different findings due to the differences in the systems, rather than the stigma experiences themselves.

7. Conclusions and suggestions for future research

This review has looked at the literature surrounding stigma amongst older adults and mental health service users. Stigma towards mental illness is very much on the agenda for the Government in terms of reducing it, with the National Institute for Mental Health in England (NIMHE) developing an Anti-Stigma and Health Disparities Programme in 2003, now called SHIFT (NIMHE, 2007). However, the majority of the work is still being carried out in USA and has tended to concentrate on perceptions of stigma, rather than how those stigma experiences affect the individual in terms of them incorporating these negative attitudes into their own belief system. The research participants are also predominantly from the general population, rather than mental health service users. Therefore, the responses from these participants are generally hypothetical, rather than being based on actual stigmatizing experiences.

Corrigan and Watson (2002) acknowledge that individuals with mental illness are also likely to be members of other groups which might experience stigma, such as the elderly. Stigma towards the elderly is referred to as ageism, 'a process of systematic stereotyping and discrimination against people because they are old', and has been regarded as the third 'ism' after sexism and racism (Butler, 1995; cited in Palmore 1999). Yet, those older adults who have mental health problems may suffer potentially additional stigmatization, a 'double-whammy' of stigma (de Mendonça Lima *et al.,* 2003), with Sartorius (2003) suggesting that this double stigmatization decreases access to health care. The underutilization of mental health services by the

elderly is a well documented fact (Hatfield, 1999; Qualls *et al.,* 2002; and Robb *et al.,*; cited in Segal *et al.,* 2005) and research has found an additional link between stigma and treatment drop out (Sirey *et al.,* 2001).

The current literature presents inconsistent findings as to the effect of negative age-stereotypes and stigma amongst older adults and those accessing mental health services, yet this is surely an area of research that needs addressing in order to maximise the potential of mental health services for older adults. Understanding older adults' internal belief systems with regards to their age might give a better understanding of the way that they use mental health services. Research has demonstrated that older adults are able to give a good account of their experiences of dementia (Preston *et al.*, 2007; Langdon *et al.,* 2007; Harman & Clare, 2006). Therefore, research into self-stigma amongst older adults currently accessing mental health services would give insight into potential ways older adults might better utilize these services.

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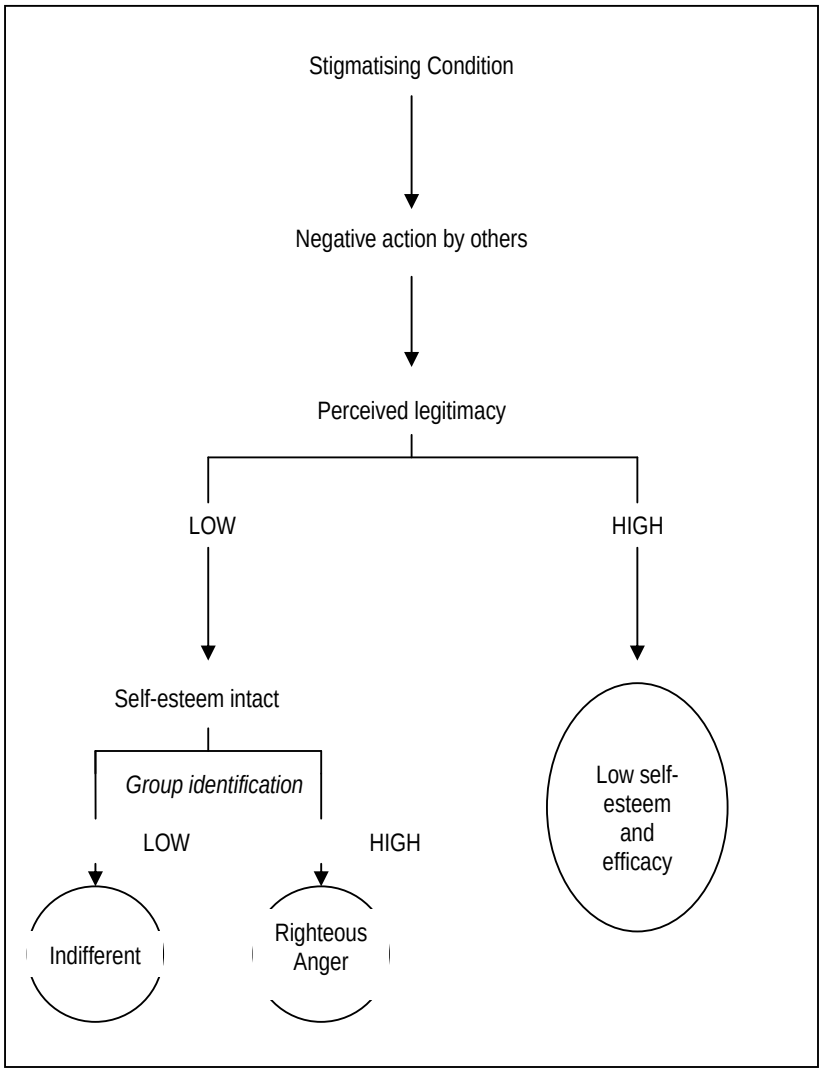
Appendix 1: Corrigan and Watson's (2002) model of how a person reacts to stigma towards the self



Appendix 2

Literature Review Search Strategy

THE INITIAL LITERATURE REVIEW STRATEGY

FIRST STEP

The author initially searched for review papers using the Annual Reviews database and the Cochrane database with the following terms:

- Ageism
- Ageism amongst older people
- Ageism and mental health
- Self-stigma
- Stigma and old age
- Prejudice and old age
- Stigma and older people
- Stigma and elderly people

The reading of review papers such as Major and O'Brien (2005) led to a further list of search terms being developed which would be used for a substantial search of relevant databases.

INITIAL SEARCH STRATEGY

1) An initial list of search terms and MeSH terms was developed which included[1],[2]:

- older people, old age, elderly
- mental health; mental illness, access to services, accessing services
- ageism, self-stereotypes, self-stigma, self-perceptions, self-discrimination, self-prejudice
- repertory grids, Interpretative Phenomenological Analysis, questionnaires

[1] *These search terms have been grouped into relevant categories to make viewing easier*

[2] *MeSH terminology ensures relevant information which may use different terminology for the same concept is retrieved*

2) Boolean operators, (AND, OR, NOT) were used to tell search engines which keywords should be included, or excluded from the search.

3) The search of the literature was limited to publication dates between 1997-2007 (August/September). However, particularly relevant research papers which were published prior to this and had been cited within the obtained literature were also sourced.

4) In order to reduce the amount of irrelevant search hits, only those publications which had been produced in English were included in the database searches.

5) From the initial searches the key terms and words which identified the most relevant articles were retained as search terms for the systematic review of the literature.

SYSTEMATIC SEARCH

The finalised list of search terms, which were used in different combinations (but always the same combinations in each database search), using Boolean terms was as follows. They have been grouped into relevant categories to make viewing easier:

- ageism, self-stereotypes; self-stigma, self-discrimination, stigma
- older people, old age
- mental health, mental illness, access to services, accessing services
- Interpretative Phenomenological Analysis, repertory grids, questionnaires

Database search

The databases used in the literature review were:

- Annual reviews
- ASSIA (Applied Social Sciences Index and Abstracts) (covers health, social sciences, sociology, psychology, education and politics)
- Cochrane Library
- HMIC (contains three health management bibliographic databases)
- IBSS (International Bibliography of the Social Sciences) (covers the core social sciences)

- National Research Register (a database of current and recently concluded research within the NHS. A number of researchers were contacted who were conducting/had completed relevant studies)
- PsycINFO (a database of psychological literature)
- PUBMED (provides citations from MEDLINE (a health database) and other life science journals)
- Sage Journals Online
- Scopus (covers health, social sciences, psychology and life sciences)
- Web of Science – Science Citation Index (SCI) and Social Sciences Citation Index (SSCI)

Reference searches

Relevant papers identified through the reference lists of the obtained articles were also sought in order to ensure a systematic review of the available literature was conducted.

Website searches

Internet search engines Google (www.google.com) and Google Scholar (www.scholar.google.com) were utilised to ensure all relevant material was searched, including home pages of key authors in the literature. Additionally, official documents and publications were sourced by searching the Department of Health website (www.doh.gov.uk) and linking to additional relevant publications, such as Age Concern – Improving services and support for older people with mental health problems (www.ageconcern.org.uk/AgeConcern/Documents/full_report.pdf).

Name searches

The names of the key authors, identified through the initial review of the literature, were searched for in the above databases and websites. This ensured that all publications and unpublished material was sourced, which was then cross-referenced to the material already obtained.

Citation alerts

Alerts were set up on the above databases for key search terms, to ensure that any new publications were checked for relevancy.

Self-stigmatization and ageism amongst older people accessing mental health services

Hayley Griffiths

Submitted in partial fulfilment of the requirements of the University of Hertfordshire for the degree of DClinPsy

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ABSTRACT

The aim of this novel piece of research was to explore experiences of self-stigma amongst a group of older people (aged 65+) currently using mental health services. In order to try and identify possible contributing factors to internalized stigma it was also decided to gather information on optimism and a baseline measure of distress. These scores were all compared with the individual's likeliness to continue to use the mental health services as it was hypothesized that higher levels of self-stigma would be linked with a lower likelihood to continue to use services.

Fourteen participants (age range 65-92) from three different geographical areas agreed to take part having been approached by a mental health professional known to them. Interviews were then arranged directly with each participant, with each interview being made up of three questionnaire measures to rate levels of distress, optimism and experiences of mental health stigma, a Likelihood to Continue to Use Services rating scale, and a repertory grid. The repertory grids had been specifically designed to explore the construct systems of the participants in relation to their age.

The main finding was that experiences of mental health stigma were minimal, but that participants showed some signs of internalizing ageist attitudes. However, neither of these variables was correlated with a likelihood to continue to use services, suggesting that it is factors other than mental health stigma and age stigma and self-stigmatization that impact on an older person's decision to continue to engage with mental health services or not. The small sample size also meant that power was lacking from the findings, indicating that further research needs to be carried out.

This study has opened up a research area which needs further ongoing investigation in order to fully explore the clinical implications of self-stigma in relation to age and mental health problems. Areas of potential future research are offered and briefly explored.

CHAPTER 1: INTRODUCTION

This chapter will introduce the topic of this thesis and the reasons for conducting this piece of research. The current and relevant literature will be described to help readers understand how the research questions have been formulated, and will identify the gaps that are apparent within this area of study. The chapter will conclude with the research questions and hypotheses being outlined.

1.1 STIGMA

In classical Greek the word 'stigma' means 'a mark made by a pointed instrument, a dot' (Soanes *et al.*, 2001, p. 1271). This original definition came to represent bodily signs, which drew attention to something deemed unusual or negative about the moral status of the bearer. The signs were cut or burnt into the skin, marking the person possessing the mark as a blemished person, someone to be avoided (Goffman, 1963). The mark that was left has led to 'stigma' being used metaphorically to refer to 'stained or soiled individuals who were in some way morally diminished' (Thornicroft, 2006, p. 170). Crocker, Major and Steele similarly describe a stigmatized person as someone who is regarded as 'devalued, spoiled, or flawed in the eyes of others' because they belong to a particular social category (cited in Dovidio, Major & Crocker, 2000, p.1).

One of the groups in society which is frequently stigmatized and has been throughout history is that of people who have mental health problems. The terms currently used to refer to the illnesses, difficulties, and problems that lead to people being referred to mental health services and receiving psychiatric diagnoses can be seen as stigmatizing in themselves as they locate the problem very much within the individual. However, these are the terms used within society and therefore they will be used throughout this thesis. In fact, Judi Chamberlin, in her foreword to Thornicroft's (2006) book 'Shunned: Discrimination against people with mental illness', speaks of the word 'stigma' itself being problematic, again because the location of the problem is seen as very much within the individual who is the recipient of the stigma. Hinshaw (2007) draws our attention to the use of language and how slang phrases for mental health problems, such as 'crazy, nuts, psycho', are frequently applied in a derogatory fashion to others, even by young children. It has also become common practice to hear

technical terms used within the field of "mental handicap" during the early twentieth century, such as 'idiot', 'imbecile', 'cretin', 'retard' and 'moron', used as insults (Wikipedia, 2008). These terms are so widely used in today's society that it is likely that the majority of people who use them do not even know their original definition. These terms rival ethnic, racial, and sexual slurs as sources of mockery, yet while modern society prevents the majority from using these insults; this is not the case with those concerning mental illness. It is evident, just by looking at language use, that stigmatization is present in our society from a very young age, remaining throughout the life-span.

1.2 STIGMA AND MENTAL ILLNESS

In 2000, a survey by the Mental Health Foundation reported that 70% of 556 participants described being victims of stigma and discrimination, either because of their own mental illness, or because they had a relative/friend who had mental health problems. Hinshaw (2007) commented on this stigmatization and stated that the negative impact it can have on the life course of people with mental illness is 'over and above the impairments and problems associated with the conditions themselves' (p.106). The negative consequences of stigmatization have been found to result in poor mental health, physical illness, infant mortality, academic underachievement, low social status, and poverty as well as reduced access to housing, education and jobs (Allison, 1998; Major & O'Brien, 2005). Further research has suggested that individuals with mental health problems who are stigmatized also suffer difficulties such as low self-esteem, limited social networks and lowered quality of life (El-Badri & Mellsop, 2007).

1.3 THE PROBLEM OF SELF-STIGMATIZATION

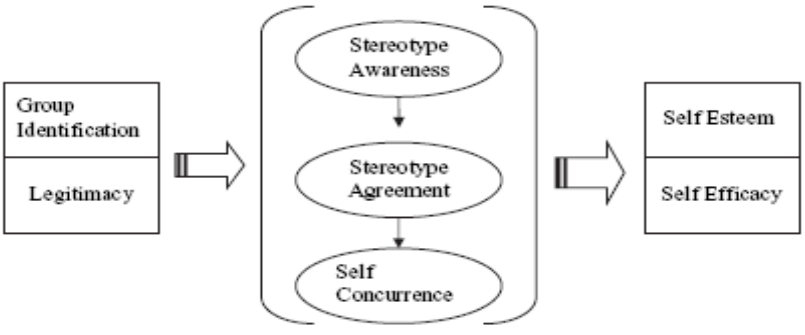

Fig. 1. Theoretical Model of Self-Stigma

Figure 1 is Corrigan and Watson's (2002) model of self-stigma, which is central to this research study. This model offers an explanation as to how having an awareness of a stereotype which is attached to the group to which one is perceived to belong can become internalized, which in turn can lead to negative consequences. A detailed explanation of this model will be given below when the consequences of stigmatization are explored.

Goffman (1963) suggested that the stigmatized individual might themselves endorse the belief that is being directed towards them in a stigmatizing way. Stigma is seen by many as a largely social construction (Dovidio, Major & Crocker, 2000), meaning that the beliefs we hold about others, and people in different social groups or categories from ourselves, are ingrained in us from society as a whole. This can result in people who are stigmatized actually believing these negative attitudes and internalizing them, and therefore applying them to themselves. In fact, Ritsher and Phelan (2004) felt that the negative consequences of stigma may arise through the 'internal perceptions, beliefs and emotions of the stigmatized person', over and above the 'effects of direct discrimination by others' (p.258). This distinction between direct discrimination and consequences of perceived stigma has been referred to previously as the difference between enacted and felt stigma. The terms enacted stigma and felt stigma were originally used in reference to stigma in relation to people with epilepsy (Scambler, 1984). Enacted stigma refers to discriminatory behaviour towards someone based solely on that person's social unacceptability. Felt stigma, on the other hand, concerns the shame the individual feels based on the attribute they possess for which they are discriminated against, for instance, someone might feel shame because they have a mental health problem. Additionally, felt stigma also refers to an overwhelming dread of enacted stigma. Scambler wrote that 'there can be little doubt…that felt stigma was in its own right a profound and lasting, if intermittent, source of unease, self-doubt and disruption in people's lives' (1984, p.217).

This concept has evolved into what is referred to as 'self-stigma', which is the internalization of negative stereotypes. This internalization can lead to people with mental health problems and their families adopting attitudes of self-loathing and self-blame which can ultimately affect their potential recovery (Everett, 2003). Additionally, self-stigma can result in people with mental health problems beginning

to expect poor treatment, devaluation and rejection from others. Consequently, having these beliefs can lead to feelings of helplessness and hopelessness (Everett, 2006).

A review of the research literature by Corrigan and Rüsch (2002) found that many people with mental health problems are aware of the stigma towards their group, which has been shown in some studies to result in a number of negative consequences. For instance, some of these individuals have been found to agree with the stigma (Hayward & Bright, 1997) and apply it against themselves, which results in lowered self-esteem and self-efficacy (Corrigan & Watson, 2002).

Hayward and Bright (1997) also suggest that there is a wealth of evidence demonstrating that those who have mental health problems have very similar stigmatizing views to those of the general public. In their review of the literature on stigma and mental health problems, the majority of which was carried out in the 1950s, 60s and 70s, they describe studies showing evidence of stigmatization towards mental illness within those who suffer with mental health problems. Swanson and Spitzer (1970) interviewed 670 patients selected from three psychiatric hospitals, with an age range of 15-82 years. The participants were asked questions to find out their attitudes towards ex-psychiatric patients. They found that the older participants (aged 50 and over) showed a tendency to be more stigmatizing towards mental health sufferers than those in younger groups, although all participants demonstrated negative attitudes towards the mental health sufferers described in the research interviews.

Therefore, it is possible that it is not just being stigmatized that results in self-stigmatization, but also that having these negative attitudes yourself, prior to the onset of mental illness, can result in applying these negative attitudes and beliefs inwardly. The aim of this thesis, then, is to attempt to conceptualize self-stigmatization in relation to older people and mental illness, and to try and measure it, as this appears to be a gap in the current literature.

1.4 ENGAGEMENT IN MENTAL HEALTH SERVICES

A possible consequence of internalizing these negative attitudes about mental illness is not seeking help for mental health problems encountered. This was highlighted by

the Surgeon-General in the United States of America (Satcher, 1999) when he reported that nearly two-thirds of all people with a diagnosable mental health problem do not seek treatment. Satcher (1999) also highlights research which has found that one of the many barriers to seeking treatment is the stigma surrounding mental illness. More recently, Corrigan (2004) reported that the reason most commonly given as preventing individuals from seeking psychological help is the stigma attached to actually seeking help. Therefore, having a mental health problem itself is not the only cause for stigma, as those who seek help for their mental illness also experience stigmatization (Vogel *et al.,* 2007).

The negative impact self-stigma can have on the process of recovery from mental health problems has been written about by Deborah Perlick (2001). She commented that because messages of helplessness and hopelessness are believed by people with mental health problems they give up on themselves and their future. Research has also demonstrated that self-stigma can affect self-esteem, psychological well-being and self-efficacy, which can have implications for adherence behaviour to empirically validated services (Fenton *et al.,* 1997; Sirey, Bruce, Alexopoulos, Perlick & Friedman *et al*., 2001; Sirey, Bruce, Alexopoulos, Perlick & Raue *et al.,* 2001). Barney *et al. (*2006) asked 1312 participants (age range 18-89) to complete questionnaires concerning their likelihood to seek professional help for depression, and the role stigma played in their decision making process. Both perceived mental health stigma and self-stigma were found to have a negative impact on their inclination to seek help. Additionally, Vogel *et al.* (2006) found amongst a large number of University students that those who reported greater self-stigma associated with seeking psychological help had less intention to seek treatment for psychological and interpersonal problems. Similarly, a survey study of 100 adults of working age who accessed mental health services in New Zealand looked at stigma, discrimination and quality of life (El-Badri & Mellsop, 2007). It was found that some of the participants reported trying to avoid or refuse help for mental health problems due to their fear of further stigmatization, and that 80% worried that others would view them negatively because of their mental illness.

1.5 STIGMATIZATION AND OLDER PEOPLE WITH MENTAL HEALTH PROBLEMS

This group of people is already faced with negative attitudes from society because of their age, let alone having a mental illness, which has been demonstrated above to bring its own stigmatizing behaviour from others. de Mendonça Lima *et al.* (2003) wrote about the shame attached to both mental illness and old age, creating a double stigma for an increasing number of individuals. However, a recent review of the literature (Griffiths, 2007) highlights an apparent lack of knowledge, understanding and even awareness of this phenomenon (Thomas & Shute, 2006). Interestingly, reducing the stigma of mental illness is now a policy priority across Britain. Yet, thus far, none of these initiatives has focused on older adults (Age Concern England, 2007).

1.51 Ageism

'Ageism' was a term first coined by American gerontologist Robert Butler in 1969 to refer to "a deep-seated uneasiness…a personal revulsion to and distaste for growing old…" (cited in Nemmers, 2004, p.13). More recently, Palmore (1999) described ageism as 'the ultimate prejudice' or 'the last discrimination' and suggested that this form of prejudice is seen across society, in many different, often subtle, forms (p.3). Ageism is commonly attributed to young people and middle-aged adults, but it is also found amongst the elderly themselves. The Alliance for Aging Research (2003) suggested that ageism is unconsciously a part of the psychology of older people, which can impact on medical outcomes. It is possible that this negative impact stems from older people internalizing ageism and becoming self-stigmatizing. Although it has now been four decades since Butler first wrote about ageism, research into its prevalence and impact on older people has only recently become a focus of interest (Nemmers, 2004). The National Service Framework for Older People (Department of Health, 2001) 'Standard One' is specifically focused on rooting out age discrimination in relation to access to NHS or social care services. However, this document alone is not sufficient to tackle the widespread ageism within our society, especially when there is evidence to suggest that older people themselves are contributing to this ageism.

In 2005, 'Everybody's Business' was introduced by Care Services Improvement Partnership (CSIP) with the aim to improve health and social care practice across health and social care, physical, mental health, mainstream and specialist services for

older people (CSIP, 2007). Their view of age equality is that an older people's mental health service should be open to anyone; it should be determined by need not age, making sure that no older person with mental health problems within the system is discriminated against (CSIP, 2007). Ensuring that services are not provided based on how old someone is, but rather on their need for a service, is one step towards an adequate service for older people with mental health problems. However, older people still need to access these services in order to benefit from them, and that is where self-stigmatization comes into the equation, in that older people's own internalization of ageist attitudes might be preventing them from using the services available.

1.52 Stereotyping and older people

The inward application of age stereotypes has been frequently demonstrated by Levy, who in 2001 highlighted the suggestion, presented by previous research, that older people direct age stereotypes inwardly having been exposed to them culturally throughout their lives. In a study of aging stereotypes and cardiovascular stress amongst older people, Levy *et al.* (2000) concluded that negative aging stereotypes contributed towards adverse health outcomes, by acting as direct stressors without the older adults having an awareness of this occurring. Levy (2003) also suggested that age self-stereotypes can influence an individual's cognitive process in an unconscious way. This results in elderly people attributing a declining cognitive process to aging rather than to any other cause, and by doing this they reinforce their negative self-stereotype of aging. This can lead to a self-fulfilling prophecy, which is when a belief is 'proved correct or comes true as a result of behaviour caused by its being expressed' (Soanes *et al.,* 2001, p. 1171). Levy's studies highlight the impact negative stereotypes can have on older people.

Research by Nosek *et al.* (2002) supported the presence of ageism amongst older adults. They set up a website which allowed people of all ages to log on and their attitudes toward, and stereotypes of, social groups were measured. The study used 600,000 responses to implicit attitude and stereotype tests which had been obtained during the first 19 months of the website being established. It was found that older adults expressed implicit attitudes which were similar to those expressed by younger age groups, favouring younger people over older generations.

However, exposure to negative age stereotypes has not consistently resulted in negative consequences for older people. A randomized controlled trial (RCT) study by Pinquart (2002) presented an experimental group of 60 older adults with negative information about competence in old age. It was found that rather than diminishing the older individuals' self-perceptions, these were in fact improved. What was found, though, was that the experimental group had generally more negative perceptions of other older adults as a result of their exposure to negative age stereotypes. Thus, this group of older people were more ageist about other older people following presentation of negative information about competence in old age, but not themselves. This finding suggests that older adults might still hold ageist attitudes towards their peers, but that they might differentiate themselves from their peer group, and see themselves more positively in comparison.

1.6 OLDER PEOPLE'S ENGAGEMENT WITH MENTAL HEALTH SERVICES

Stigmatizing behaviour towards mental health problems can have a significant negative effect on help-seeking behaviour, which can lead to an even greater impact on an individual's mental health. Additionally, ageism towards older people and the detrimental impact this can have has also been explored. The combination of these two factors then, old age and mental illness, surely lends itself to a 'double-whammy' of stigmatization, where someone potentially experiences twice the level of stigma. What impact then will this have on older people and their engagement with mental health services? This is one of the main questions this thesis will attempt to answer.

It has been consistently found that older adults greatly underutilize mental health services, even when the need is there *(*Hatfield*,* 1999*;* Qualls *et al.,* 2002*;* Robb *et al.,* 2002). The U.S. Census Bureau, in 1999, estimated the number of older people living in the USA to be approximately 12.7% of the population. However, the proportion of mental health services used by the elderly was estimated to be approximately only 2% of private services, between 4-7% of community mental health services and approximately 9% of inpatient psychiatric care (Hatfield, 1999).

In a study by Segal *et al.* (2005) a sample of 79 community-dwelling older adults and 96 undergraduate students were asked to complete three measures designed to assess

their attitudes towards mental health problems and a willingness to seek treatment if needed. The results showed that for both age groups an increase in negative attitudes toward mental illness was associated with a lowered willingness to seek psychological help. Of note is that this association was higher among the older adults. However, this study used individuals from the general population, rather than people who actually had mental health problems. The finding that older adults were more negative towards mental health problems and as a result were less likely to seek psychological help could be due to the variance in age of the two groups, with older adults in general being more negative towards mental illness (Segal *et al.,* 2005). However, that is only one possibility as there is no causal link between increasing age and more negative attitudes towards mental health problems. Another possibility might be cohort effects, with attitudes developing because of factors linked to the era that that group grew up in. Alternatively, the finding might be linked to older people having less understanding of mental health problems, or having less experience of people with mental health problems.

Hadas and Midlarsky (2000) investigated predictors of, and barriers to, mental health service use in one of the few studies to actually research help-seeking behaviour amongst older adults with mental health problems. The sample contained 319 distressed older adults who had been referred for psychological help. They found that a majority of the sample felt themselves responsible for causing their own problems and for solving them, without the help of services. Segal and colleagues (2005) add that although negative attitudes towards mental health problems would undoubtedly result in a lower uptake of seeking professional help, these constructs have been rarely studied together amongst older adults.

Segal *et al.* (2005) also propose that many older adults hold these negative societal attitudes towards mental illness and that the extreme stigma and shame that they experience because of mental health problems results in them being unwilling to seek appropriate psychological help when it is needed. However, there is little empirical evidence to date to confirm these arguments (Robb *et al.,* 2003). Additionally, Nelson (2005) highlighted that very little is known, from a research perspective, about how older adults perceive ageism. Again, this demonstrates the gap in the research that this thesis intends to try and address.

A significant piece of research relevant to this thesis is that by Sirey, Bruce, Alexopoulos, Perlick, Raue, *et al.* (2001), who carried out a study looking at perceived mental health stigma as a predictor of treatment discontinuation amongst young and older adults with depression. The sample included 63 working aged adults, and 29 older adults, aged 65 years and older. The patients in the two age groups did not differ in the severity of their depression. The participants' perceived mental health stigma was assessed at the beginning of the study and they were followed up three months later to assess whether they were still accessing the service. It was found that in older patients greater perceived mental health stigma was associated with a greater likelihood of treatment discontinuation. Thus, perceived stigma toward people with mental health problems is predictive of early treatment dropout in older adults with major depression. No other study to date has demonstrated the impact of mental health stigma on actual treatment participation and continuation, rather than the uptake of services (Sirey, Bruce, Alexopoulos, Perlick, Raue, *et al.,* 2001). However, the authors did acknowledge that this finding needs to be replicated with larger numbers of older adults and with other mental health problems. This study is also researching perceived stigma, and not self-stigmatization by the service users, which is again an area of research within this field which is lacking, hence the decision to undertake this thesis.

1.7 CONSEQUENCES OF STIGMATIZATION

However, Corrigan and Watson, with their model of self-stigma (2002) (see Figure 1) suggest that not all stigma results in internalization. Their theory of the process of self-stigma is that perceived discrimination does not equate to self-stigma necessarily, but rather it results in stigma (or stereotype) awareness. They suggest that stigma awareness is necessary for self-stigma but is not sufficient in isolation. Stereotype agreement arises when an individual supports the commonly held public stereotypes (e.g. people with mental illness are dangerous). For this stereotype to become self-stigmatizing the individual needs to agree with the stereotype, which is when the individual applies the culturally internalized beliefs to themselves ('I am dangerous because I have a mental illness'). As a result of this self-esteem and self-efficacy are diminished (Watson *et al.,* 2007). Corrigan and Watson (2002) also propose that the amount one self-stigmatizes as a result of stigmatization from others depends on

whether they perceive that negative response to be legitimate, thereby agreeing with the stereotype. If they do not perceive the negative stereotype to be legitimate then the individual's self-esteem will remain intact. If that person then identifies with the group being stigmatized (e.g., older adults, or mental health service users) then they will be indifferent to the stigma, again remaining protected from internalization of the negative attitudes.

Additionally, the theory of psychological reactance has been suggested by Brehm (1966, cited in Corrigan & Kleindein, 2005), and has been used as a way of explaining one particular reaction to stigma. When an individual perceives a threat of stigma they actually reject the negative attitudes expressed towards them, rather than complying with them and developing a negative opinion of themselves, which results in positive perceptions of the self emerging.

The rejection-identification model (Branscombe *et al.,* 1999) suggests that perceptions of discrimination can increase group identification for individuals within low status groups. Various research studies and reviews show that group members, from a number of different minority groups who identified more strongly with other members of their group reported higher psychological well-being than those who did not (e.g. Bat Chava, 1994; Branscombe *et al.,* 1999*;* Rowley *et al.,* 1998; Schmitt *et al.,* 2002). In more recent research, Garstka *et al.* (2004) found that although perceived age discrimination was associated with decreased psychological well-being, it was also associated with increased in-group identification, which in turn related to increased psychological well-being. Of particular interest is that the older adult participants within this study reported significantly greater age group identification than younger adults.

1.8 SERVICE USERS' PERSPECTIVES CONCERNING STIGMA

This chapter has so far presented findings that show the stigma attached to mental illness also extends to seeking help for these mental health problems. Furthermore, Sirey, Bruce, Alexopoulos, Perlick, Raue, *et al.* (2001) demonstrated within their study that treatment discontinuation was more pronounced in older adults with a mental illness (depression) than younger participants. This treatment dropout is possibly a result of the actual, or anticipated, stigmatization experienced. Another

possibility is that this stigmatization has become internalized and that these individuals are actually self-stigmatizing. This may result in them believing the negative perception of mental health problems, and age in the case of the older research participants, and therefore not seeking help, or if they do, not remaining in treatment.

However, Corrigan and Rüsch (2002) point out that what is missing from the literature of treatment underutilization is a clear connection between experiencing mental health stigma and not participating in treatment. This could potentially be due to the lack of this type of research being conducted. Cooper-Patrick *et al.* (1997) also draw attention to the fact that few studies have asked mental health service users their perspectives in trying to understand why certain patients drop out of treatment, or fail to take up a mental health referral. This is a gap in the research that this thesis aims to go some way towards filling.

The Epidemiologic Catchment Area Survey was a multi-site, epidemiological and health services research study in the USA that assessed prevalence and incidence of mental disorders, as well as use of mental health services (Jans *et al.,* 2004). Results from the Yale component of this research demonstrated that individuals with mental illness were more likely to avoid services if they were unreceptive to treatment (for example, agreeing that people with mental or emotional problems should not seek help) (Corrigan & Rüsch, 2002).

Wahl (1999) comments that the relatively few studies that have gained data directly from users of mental health services about their experience of stigma provide evidence that these individuals do perceive themselves as stigmatized as well as experiencing further discrimination and reduced life satisfaction. However, this research focused on general impressions and expectations of mental health stigma, rather than looking at real-life experiences. In a nationwide survey in the USA, Wahl (1999) studied the experiences of stigma and discrimination of 1,301 mental health service users, ranging in age from 12-94 years. There were two parts to the study, completion of a consumer experience survey, which was completed by all participants and an interview for 100 respondents to the written survey, who were randomly selected. The findings showed that 90% of interviewees felt a lasting impact of mental

health stigma experiences, 57% had decreased self-esteem or self-confidence due to mental health stigma experiences, and 14% experienced an increase in problem emotions, again as a result of experiencing mental health stigma. However, again this study concentrated on perceived stigma experiences, rather than the internalization of stigma. The study is useful though in highlighting the impact mental health stigma can have on individuals' emotional well-being.

There is a well documented lack of research from the perspective of mental health service users, especially amongst older adults. However, research has been carried out with older adults suffering with dementia that suggests this population are able to successfully give an account of their experiences in qualitative studies. Preston *et al.* (2007) have studied how older adults cope with dementia, with Langdon *et al.* (2007) exploring how older adults make sense of their dementia, and Harman and Clare (2006) looking at how living with early dementia is experienced. This evidence suggests that older adults suffering with other mental health problems should be able to successfully take part in a research project exploring their attitudes and beliefs.

Therefore, through measuring self-stigmatization amongst older people who are mental health service users, a greater understanding might be developed as to the processes involved in internalizing the perceived mental health stigma versus rejecting the stigma and actually having a higher level of self-esteem.

1.9 CONCLUSION

Reducing stigma about mental illness is very much on the agenda for the Government, with the National Institute for Mental Health in England (NIMHE) developing an Anti-Stigma and Health Disparities Programme in 2003, now called SHIFT (NIMHE, 2007). However, the majority of anti-stigma work is still being carried out in the USA and has predominantly concentrated on perceptions of mental health stigma, rather than how those stigma experiences come to be incorporated into individuals' belief systems. The research participants are also predominantly from the general population, rather than being mental health service users. Therefore, the responses from these participants are generally hypothetical, rather than being based on actual stigmatizing experiences.

The current literature presents inconsistent findings as to the effect of negative age-stereotypes and mental health stigma amongst older adults and those accessing mental health services, yet this is surely an area of research that needs addressing in order to maximise the potential of mental health services for older adults. Understanding older adults' internal belief systems with regards to their age might give a better understanding of the way that they use mental health services. Therefore, research into self-stigma of age amongst older adults currently accessing mental health services would give insight into potential ways older adults might better utilize these services.

1.10 RESEARCH QUESTIONS

This thesis is designed to address a number of questions relating to older people, mental illness service use, and ageism.

Questions

1) What attitudes do older people who are currently using mental health services have with regards to their own age?

The model of self-stigma presented above by Corrigan and Watson (2002) focuses on an individual's attitude in general to a perceived stigma. In the case of this research study the main stigmatization in question is old age. Therefore, an understanding of the attitudes this sample of older people hold about their own age, in that they are deemed to be 'old', would be an integral starting point for further exploration within this study.

2) Are these older people aware of any stigmatizing behaviour directed towards them because of their age and/or mental health problems?

This question would identify whether the participants did perceive any stigma from the society around them with regards to their age and their mental health problems. This element is the necessary precursor for Corrigan and Watson's (2002) model. According to their theory, the individual needs to perceive stigma directed towards them from society because of their age or mental health problem, otherwise they

would not have an awareness of there being a stereotype about old age or mental health problems.

3) Do older people self-stigmatize based on the negative attitudes present within society towards the elderly?

Corrigan and Watson's (2002) model suggests that a stereotype becomes self-stigmatizing when an individual agrees with a commonly held public stereotype and directs this belief toward themselves. This research, therefore, needs to determine whether this sample of older people endorses societal stereotypes about old age and mental health problems and in turn internalizes them, applying these stereotypes to themselves.

4) What is the relationship between these older adults' belief systems and their likelihood to continue to engage with mental health services?

It will be interesting to explore the likelihood that each participant will continue to use mental health services. The degree to which each participant anticipates their continued use of the services can then be compared with the beliefs that emerged through their interview to establish any links between belief systems and predicted future engagement behaviour.

Hypotheses

The hypotheses that this thesis aims to test, based on the literature presented, are:

1) The more the participant self-stigmatizes about their age the less likely they are to continue to engage with mental health services.

2) The more awareness the participant has of stigma towards their age and/or mental health problem, the more they will self-stigmatize.

3) The more stigmatization the participant has experienced the less optimistic they will be about their future.

4) Those participants who are more optimistic will be more likely to distance themselves from the label of 'old'.

CHAPTER 2: METHODOLOGY

This chapter will outline the methodology used to undertake this research project, and to analyse the data collected. The methods used will be described, with the reason for their selection being explained in relation to how they can answer the research questions and hypotheses of this study. Appropriate statistics will also be presented to justify their use within this study. The process of recruiting participants will be explained, as will the details of the sample used.

2.1 DESIGN

This study was a mixed-methodology correlational design project, containing both quantitative and qualitative aspects in data collection and data analysis. Data collection involved an interview with each participant. During this interview the participants were asked to complete three brief self-report questionnaires: The General Health Questionnaire – 12 (GHQ-12) (Goldberg, 1992), The Stigma Scale (King *et al.,* 2007), and the Life Orientation Test-Revised (LOT-R) (Scheier, Carver & Bridges, 1994). After completion of these questionnaires the participant completed a repertory grid (Kelly, 1955) with the researcher, and gave a rating on an 11-point scale as to their likelihood to continue to use mental health services.

During the design phase of this project it was hoped to include the input and feedback from mental health service users who were aged over 65. A local Age Concern centre, a local forum for service users of older peoples' mental health services, a support service for mental health users and the University of the Third Age (a self-help organisation for those in the third-age of life) were contacted to try and obtain access to a group of older people who used mental health services. However, the representatives at the Age Concern centre informed the researcher that they did not know of any service user groups, and the other agencies did not reply to the correspondence attempts.

2.2 RECRUITMENT

A purposive sampling approach was used to recruit participants through mental health professionals within the Trusts utilized in this study. Purposive sampling is used to identify specific participants who meet the inclusion criteria for a study. In this case

contact was made with the relevant mental health teams within the Trust, and Psychiatrists and Clinical Psychologists were asked to distribute participant packs (containing a study information sheet and consent forms) to their clients. The inclusion criteria were that the participants were aged 65 years and older and were accessing mental health services. If it was deemed that their mental health status would prevent them from being able to fully engage in the research process then they were not approached for the project. The participants also needed to have a good understanding and use of the English language. This was because of the reliance on verbal communication in the majority of the data collection.

2.3 PROCEDURE

The first three recruitment sites within one NHS Trust were chosen because of direct links the researcher had with this NHS Trust through their research supervisor. The researcher had also spent a six-month period working at one of these sites and was therefore familiar with the service. Contact was made by telephoning the relevant medical secretaries and research co-ordinators within those areas. The nature of the research was explained and the researcher then attended a meeting with the Psychiatrists working in that Trust to explain the research project to them and to ask them to distribute the participant packs to clients that met the inclusion criteria. The participant packs contained a cover letter of the project (see Appendix 1), an information sheet as to what participation would entail (Appendix 2), and a consent form (Appendix 3). At other recruitment sites contact was made with the Clinical Psychologists, either through email, telephone, or direct face-to-face contact. The mental health professionals were asked to pass the participant packs onto their clients that met the inclusion criteria and for the client to then be asked to contact the participant themselves by returning the consent form should they wish to participate. Each participant pack contained a stamped self-addressed envelope to try and aid response rate.

The distribution of participant packs amongst the first three recruitment sites was as follows: approximately 100 participant packs were given to site one, 80 packs were handed to site two and the third site received 55 packs (the reason there are different quantities of participant packs distributed refers to the differing number of mental health professionals at each site who had agreed to approach clients about their

potential participation). However, recruitment proved problematic in that only two participants in total were recruited during the first six month period of recruitment from these three sites (all located within one NHS Trust).

Therefore, the study was widened into two further NHS Trusts through personal contacts known to the researcher, in order to gather a suitable participant sample size. Five participants were recruited from the second NHS Trust, and a further 7 participants took part in the research from the third NHS Trust used. These additional NHS Trusts widened the geographical coverage of the study and it is possible that the location of each Trust, and societal factors within these Trusts, might have contributed to whether participants were interested in participating or not.

2.4 PARTICIPANTS

Fifteen participants consented to take part in the research project; however, on the day of the interview one participant was unwell and unable to participate. Therefore, there are fourteen sets of data from those participants who took part in the study. The selection process was two-fold in that participants were initially selected by the mental health professional who gave them the participant pack, as they would have judged the suitability of their clients to become potential participants. Then, the participants would have selected themselves for the project by returning the consent forms. The participants ranged in age from 65 – 91 years of age, with just over half being female (N=8). The participants were all living independently in the community, with nine of the participants recruited from the community psychology service in that area, and five from a local day hospital, for older adults suffering with functional mental health problems, in one of the recruitment areas.

2.41 Determination of sample size

A power analysis was conducted to determine the sample size for this study. Assuming a moderate effect size (r= .40) the analysis revealed a sample of 37 participants was required to detect this correlation with a power of 80% and an alpha error of 5%. Unfortunately, due to logistical problems the sample size for this study was only 14. Figure 2 displays the power curve showing a sample size of 14 has a power level of only 45%. The only remaining option to raise the statistical power of the study was to increase the alpha error to 10%. Therefore, statistical results will be

declared at the 10% significance level throughout the Results chapter. As can be seen from Figure 3, a sample size of 14 has a power of approximately 58%, giving a moderate level of detecting power for this study. This power curve was produced using a significant correlation found within the exploratory analyses of this study, and the GPower3 software package was used to produce the power curve as a post hoc calculation.

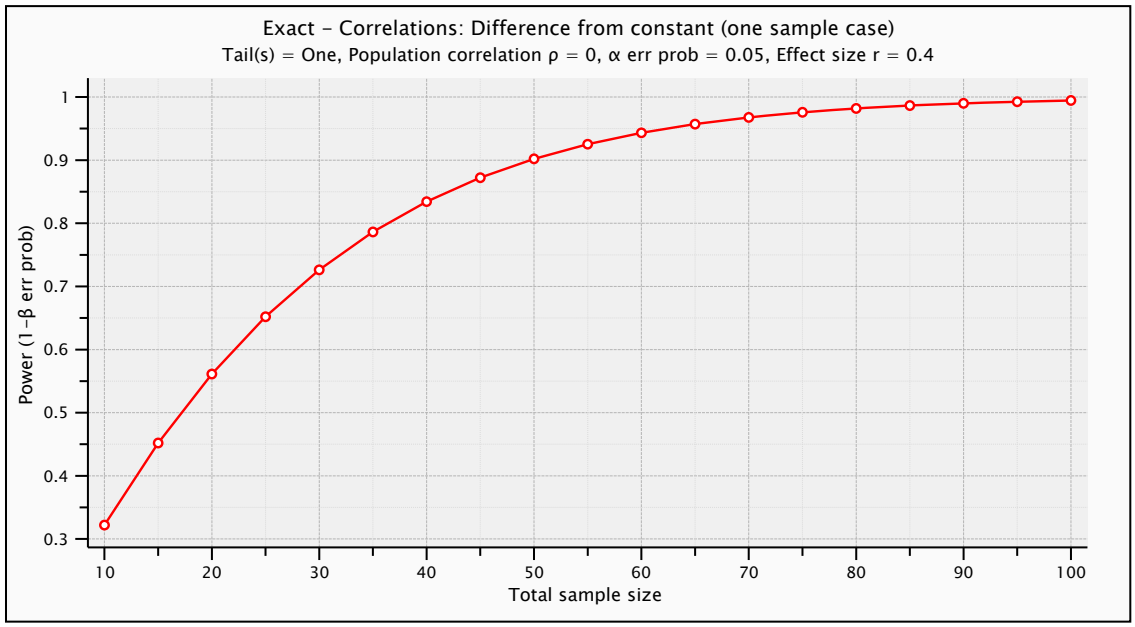

Figure 2: Power curve

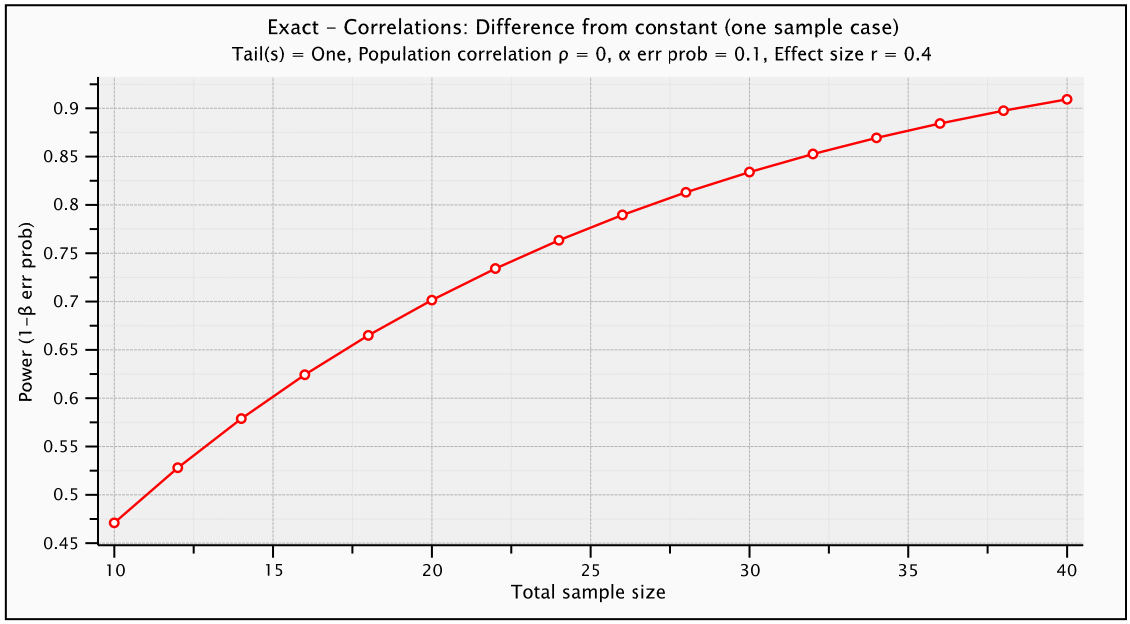

Figure 3: Amended power curve using 10% alpha level

2.5 ETHICAL ISSUES

Ethical approval for this research study was granted by the Essex 2 Research Ethics Committee, as part of the National Research Ethics Service of the NHS (Appendix 4). The study was also designated as being exempt from site-specific assessment. The Research and Development (R&D) committees for each NHS Trust used in the study were approached in order to have the research study approved (See appendices 5-7). This approval was gained before any research activity took place in that specific NHS Trust.

In order not to influence potential participants' decision about whether to participate or not it was decided that a person unrelated to the research project would approach each potential participant. This was to prevent researcher bias in the recruitment of participants. A mental health professional known to each potential participant spoke to them about the research project, passing on the information pack to them. This participant pack contained all the information needed for each participant to make an informed decision as to whether they chose to participate or not. If the individual decided they would like to participate in the research project then they were asked to complete and return the consent form in the provided stamped self-addressed envelope. However, they could alternatively telephone, email or write to the researcher through the contact details provided if they preferred another method of establishing contact.

Confidentiality was maintained during the research project by keeping each participant's data anonymous during the write up stage. Only demographic factors, in combination with scores on the measures used as part of the research, were used in the data analysis, no identifying information was used.

Participation in this research project was not deemed to be potentially harmful to participants, but the right to withdraw from the project was outlined at the beginning of each research interview. The participant Information Sheet also contained details of the local Patient Advice Liaison Service (PALS), or equivalent, within their Trust, should participants experience distress as a result of their participation. Notification of each participant's involvement in the research project was also sent to their GP and a copy of this letter placed in their medical file for future reference.

2.6 MEASURES

2.61 General Health Questionnaire - 12

The GHQ-12 (Goldberg, 1992) (Appendix 8) is a twelve-item questionnaire with a four-point rating scale for each item. The four point rating scale is rated 0, 0, 1, 2 to coincide with symptom level being not present, the same as usual, more/less than usual and much less/more than usual. A cut-off score of two and above has been identified as being indicative of psychiatric problems (Goldberg, 1992).

The scale is designed to establish an individual's level of mental distress over the past few weeks. In this study it was used to provide a baseline measure of each participant's mental health at the data collection stage. It is possible that there might be differences amongst the attitudes and beliefs of each participant which might or might not be as a result of their current level of mental distress. Having a baseline measure of each participant's distress levels allows such a comparison to be explored during discussion of the results.

2.62 Life Orientation Test - Revised

The LOT-R (Appendix 9) is a revised edition of the original Life Orientation Test (LOT) (Scheier & Carver, 1985), which was originally designed to inquire about the person's general expectancies regarding how favourable future outcomes were (Scheier & Carver, 1992). The idea behind the LOT had been to devise a simple scale that assessed optimism as clearly as possible. However, since that scale was first developed, coping has emerged as an important mediator of optimism effects (Scheier, Carver & Bridges, 1994), which led to the original version being revised. The LOT-R has 10 items, but only six of these are used to derive an optimism score. An assessment of the internal consistency of the scale revealed Cronbach's alpha for the 6 scored items to be .78, suggesting an acceptable level of internal consistency. The test-retest correlation of individual LOT-R scores (assessed at 4 months, 12 months, 24 months and 28 months) were .68, .60, .56, & .79, respectively. These findings as a whole suggest that the LOT-R is fairly stable across time (Scheier, Carver & Bridges, 1994).

Work by Everett (2006) and Perlick (2001) has demonstrated that self-stigmatization can result in those with mental health problems developing feelings of helplessness

and hopelessness. This in turn can lead to people with mental health problems giving up on themselves and their future, i.e. having a negative outlook on the future. Asking participants to complete the LOT-R will give an indication as to how optimistically they view their future.

Normative data were established for the LOT-R using a sample of college students (N=2055, approximately 60% males, 40% females) and patients awaiting coronary heart surgery (N=159, approximately 75% males, 25% females). These participants ranged in age from 36-82 years (mean 64 years of age). A third of the sample had some education beyond high-school level, and approximately 80% of the sample were married. The norm score for the college students was 14.33 (standard deviation 4.28) (with the highest possible score being 24), and the norm for the bypass patients was 15.16 (standard deviation 4.05). The authors acknowledge that these were the only norms initially produced for the LOT-R but they felt that as the two sample groups were from a very diverse population there should not be future difficulties administering the scale to other populations from different backgrounds (Scheier, Carver & Bridges, 1994).

2.63 Stigma Scale

The Stigma Scale (King *et al.,* 2007) (Appendix 10) was designed to provide a standardized measure of the stigma of mental illness which assessed the views and experiences of mental health service users. The Stigma Scale is made up of 28 questions which were developed from detailed, qualitative accounts from 46 mental health service users who had participated in an earlier study (Dinos *et al.,* 2004). The Stigma Scale has three sub-sections which are discrimination, disclosure and positive aspects. The discrimination sub-scale is focused on perceived hostility by others, or lost opportunities because of prejudiced attitudes. The disclosure sub-scale refers to disclosure about mental illness, and the positive aspects sub-scale focuses on what the individual has gained as a result of mental health problems, such as greater understanding of others. The positive aspects sub-scale is reverse scored to maintain consistency within the scale that a higher score reflects greater stigma.

The Stigma Scale was standardized using a sample of 193 service users (109 men and 82 women, 2 participants did not state gender), whose age ranged from 19-76 (mean =

43). The ethnic diversity of the sample was 76.5% White, 5.5% Black, 3.5% of Indian or Bangladeshi origin, 9% of other origin and 11 participants who did not state their ethnic background. Within the sample, 17% were employed, 34% were on sick leave from work, 20% were unemployed seeking work, 6% were students, 12% were retired, 1% were home managers and 20 participants were unable to answer the question. The majority of the participants had received a diagnosis of schizophrenia, bipolar affective disorder, depression and/or mixed anxiety and depression. The final version of the scale had a Cronbach's alpha of .87 for the 28 items, suggesting good internal consistency within the scale, and across the three sub-scales that make up the stigma scale, which are discrimination (.87), disclosure (.85), and positive aspects (.64). The mean for the full scale is 62.6 (standard deviation 15.4) and for the subsequent subscales the means are as follows: discrimination 29.1 (sd 9.5); disclosure 24.9 (sd 8.0); positive aspects 8.8 (sd 2.8). The stigma scale does not address self-stigma per se, rather it focuses on the incidents of stigma that the individual has experienced and the effect it has had on their life.

2.64 Repertory Grid

Following these questionnaires the participant developed a repertory grid (Appendix 11) with the interviewer. The repertory grid was first devised by George Kelly (1955) as part of his theory of personal construct psychology. Winter (1992) describes the repertory grid as 'a structured interview' which allows the researcher to look through the 'goggles' of the participant's construct system (p.21). Additionally, Fransella, Bell and Bannister (2004) acknowledge that the repertory grid has been thought of as a measure of 'attitudes', 'meaning', 'personality' or 'concepts' by many people. Personal constructs are bipolar in structure, and have been created by each person and formed into a system which they use to make sense of their experiences in the world (Fransella, Bell & Bannister, 2004).

A repertory grid is made up of constructs and elements. Fransella, Bell and Bannister (2004) describe the data in the 'body' of the grid as defining 'the relationship between elements and constructs as set out in Kelly's fundamental postulate (the primary principle of personal construct psychology) that 'A person's processes are psychologically channelized by the ways in which he anticipates events'. The 'ways' mentioned are the constructs of the grid, and the 'events' are the elements. The

elements must always be relevant to the constructs used in the grid. They can be people, or various aspects of the self. The constructs are then derived by presenting the participant with three elements, written on cards, (a triad) and asking them to think of a way in which two of the given elements are alike and different from the third element. When the participant identifies a similarity between two of the three given elements they are then asked to state the opposite of that similarity. For example, if a participant had identified that two elements of the triad were alike in that they were both strong-willed, they might then give the opposite as weak-minded. This then gives the bipolar construct. The constructs are therefore ways of differentiating between the elements.

The repertory grid in this study was designed specifically to focus on the attitudes the participant holds in relation to age. This was achieved through asking the participant how they saw themselves at different periods in their life, how they would like to be (ideal self), and how they viewed other older people and other people at different life periods (these are the elements of the grid). The elements that were supplied for each participant, in order as they appeared on the grid were: self now; ideal self; self as a middle aged adult; self as a young adult; how you see older people; how other people see you now; how other people saw you as a middle aged adult; how other people saw you as a young adult; how other people see a typical older person; how other people see a typical middle aged adult; and, how other people see a typical young adult. This gave an indication of how each participant felt about their own age (positive or negative), how they felt about themselves compared with other older people (for instance, similar or different) and what their ideal age might be. This then allowed comparisons to be made between participants, taking into consideration the constructs held about ‘old age’ and the scores on the other measures.

The repertory grid contained 12 constructs. One complete construct was supplied (old – young), and a second construct had the first pole given – respected. The participants then had to think of the opposite pole themselves for this particular construct. The remaining 10 constructs were elicited from each participant via the triad elicitation technique. For the purposes of this research project the ‘self now’ element card was included in each triad so that a comparison against the participant’s current self/age was continuous throughout the grid. The triads were presented in order as they

appeared on the grid, with any one element (apart from the 'self now' card) only being a part of a triad for two construct elicitations. If all the elements had been shown in triad form but not all 10 remaining constructs had been elicited then the element cards were presented in random triads in order to help construct elicitation completion. Following elicitation of the constructs, the participant completed the grid by rating each of the elements on a 1-7 scale on each construct, where 1 and 7 represented the two poles of the construct, with 1 relating to the left-hand pole of the construct (the pole elicited from the participant) and a score of 7 relating to the right-hand pole. This is a popular scoring system because it provides more scope than smaller scales for people to express differentiated views, and the freedom to give a midpoint rating (Fransella, Bell & Bannister, 2004).

Adams-Webber (1992) investigated the use of the self within repertory grids. He found that when people categorize other people on bipolar constructs (e.g. happy – sad) they tend to allocate them to the positive poles approximately 62% of the time, on average. This is a consistent finding across several studies, indicating the stability of this measure within repertory grids (Adams-Webber, 1992; Fransella, Bell & Bannister, 2004). Further study of the reliability of repertory grid use was carried out by Feixas *et al.* (1992), when nine measures used within repertory grids were examined. In their research the test-retest correlations they reported over 1 hour, 1 week and 1 month were extremely high, with modal scores of 0.95, 0.95 and 0.94 respectively (Fransella, Bell & Bannister, 2004). A key facet when considering the reliability of repertory grids is whether the constructs elicited from people are likely to be a stable and representative sample (Fransella, Bell & Bannister, 2004). Hunt investigated this as early as 1951 (cited in Fransella, Bell & Bannister, 2004) and found that over a one week interval about 70% of the constructs elicited on the first occasion were repeated on the second. Fjeld and Landfield (1961) expanded on this study and demonstrated that when participants were given the same elements there was a correlation of 0.80 between the first and second sets of elicited constructs, over a two-week interval, demonstrating a high degree of reliability.

Concurrent and predictive validity of a repertory grid measure was assessed by Fransella and Bannister (1967, cited in Fransella, Bell & Bannister, 2004) by demonstrating that voting behaviour was related to construing. The study included 74

participants who completed grids concerning their political preference prior to a pending British General Election. In addition to completing the repertory grid the participants also had to complete a form indicating the political party for which they were likely to vote. After the Election had taken place the participants completed another form stating how they actually did vote. It was found that the 'ideal self' supplied construct was the best predictor of voting behaviour. Fransella (1972) conducted further research with people who stutter. This research was specifically designed to validate the personal construct theory that behaviour cannot be separated from construing (Fransella, Bell & Bannister, 2004). Within this study the treatment of stuttering was directly linked to therapeutic methods derived from personal construct theory, which validates the grid method (Fransella, Bell & Bannister, 2004).

The repertory grid was piloted on two working-aged adults and one older adult prior to the commencement of data collection. This allowed the list of elements to be finalised before recruitment started. The data from these pilot grids are not included in the final results on this study.

2.65 Measuring mental health self-stigmatization

The repertory grid described above has been designed specifically to assess levels of self-stigmatization with regard to age amongst older people for the purposes of this study. However, the measures currently available to assess self-stigmatization of mental health problems were not suitable for this piece of research. Corrigan, Watson and Barr's (2006) Self-Stigma on Mental Illness Scale (SSOMIS) was sought as this is based on their model of self-stigma that is presented within this thesis. However, this scale was not readily available, and neither was the Self-Stigma Assessment Scale (SSAS), which is referred to in the literature but was not available to access and had minimal information on its development which might have helped in locating it. The other scale which was considered was the Internalized Stigma of Mental Illness Scale (ISMI) (Ritsher, Otilingam & Grajales, 2003). This scale was developed in USA and its test-retest reliability was only calculated using 16 participants of the original sample of 127. The sample used was also predominantly male (93.6%) from a War Veterans' medical centre. Therefore, it was decided that because the scale might lack ecological validity because of its development in USA, and possibly was not representative of the general population, in addition to the questionable test-retest

reliability, that it would be preferable to opt for the Stigma Scale (King *et al.,* 2007) (Appendix 11). This scale is very similar in its properties, but ultimately does not specifically address mental health self-stigma. It was felt, though, that the scale might give an indication as to whether the participant was negative about their own mental health, without explicitly assessing this area. The Stigma Scale was developed using mental health service users within the UK whose ages ranged from 19-76, and the male to female ratio was approximately 60:40.

2.66 11 point rating scale of 'likelihood to continue to use mental health services'

An 11-point rating scale (Appendix 12) was designed specifically for this research project. Its intended use was as a quick and simple way of obtaining an indication of each participant's likely future engagement with mental health services, which is a key element to this research study. The scale went from 0-10, with 0 indicating a participant would not continue to use mental health services, and a score of 10 given if the participant would definitely continue to engage with these services. The development of this scale took place following discussions between the researcher and the project supervisors.

2.7 ANALYSES

The Idiogrid software package (Grice, 2002) was used to analyse the repertory grid data (See appendices 13-26 for Idiogrid output) as this is the software the researcher was most familiar with and was most readily available for data analysis purposes. Idiogrid also incorporates the vast majority of the analyses available in other packages, including those such as element distances, which were of particular relevance to this research. The measures derived from Idiogrid which were used to assess the data were a measure of self-stigmatization in relation to age, a measure of perceived age stigma, a measure of age-stigma experienced, a measure of how much participants distance themselves from the label of 'old', the percentage total Sum of Squares score accounted for by the construct 'old', and the percentage of variance accounted for by the first principal component.

The first four measures were based on 'element distances', which indicate the degree of construed dissimilarity between pairs of elements (the higher the distance the more dissimilar the elements concerned).

1.) Self stigmatization was measured by subtracting the average distance between the ideal self and self at middle age and self as young adult elements from the distance between the ideal self element and the self now element. The overall score will give an indication of how far the self now is viewed as having moved away from the ideal self since young and middle aged adulthood, and hence of stigmatization of the self as an older person. This score will be used as the measure of self-stigmatization in testing Hypothesis 1.

2.) Perceived stigma was calculated by subtracting from the distance between the ideal self element and others' perceived view of older adults the mean distance of the ideal self from others' perceived views of middle aged adults and of young adults. The higher this score the more the participant considers that others view older people less favourably (as assessed by distance from the participant's own ideal self) than people of younger ages. Since this measure reflects the level of perceived negativity towards older people in general, it is assumed that it can be used to indicate the awareness of stigma towards old age in testing Hypothesis 2.

3.) Stigma experienced was measured by using the distance between the ideal self and others' view of self now elements minus the average distance of the ideal self versus others' view of self middle aged elements and the ideal self versus others' view of self as young adult elements. The greater this distance the more dissimilar the participant's construing of their ideal self to how they believe they are seen by others when compared with the view of themselves at younger ages.'

This measure is designed to indicate whether the individual considers that s/he is perceived more negatively by others (reflected in dissimilarity to the individual's ideal self) now than at younger ages. A high score might be regarded as indicating that the individual experiences stigma towards their age. This score will be used as the measure of experienced stigmatization towards age in testing Hypothesis 3.

4.) To measure how far the participant places themselves from the concept of 'old age' the distance between the self now element and the participant's view of older people element was calculated. The bigger this distance the more the participant tries

to separate themselves from the label of 'old'. This score will be used in testing Hypothesis 4.

5.) The percentage Sum of Squares score identifies the superordinancy of constructs, which indicates which constructs are most important to participants (Bannister & Salmon, 1967; cited in Winter, 1994). Therefore, by looking at the 'old-young' construct within the table for the Sum of Squares scores it can be calculated how important this construct is to that participant. As there are 12 constructs within the repertory grid a score of 8.33 would mean each construct was rated equally by the participant. Any score above this would indicate that this construct is of relatively high importance to the participant.

This measure is not related to a specific hypothesis, but rather it adds richness to the data collected and contributes to the overall aim of this thesis in examining attitudes towards old age amongst a sample of older people.

6.) The principal component analysis identifies those constructs which have the highest level of inter-relatedness. The percentage variance of the first component of this analysis indicates the tightness of construing the participant demonstrates. The larger the percentage the tighter their construing and the more unidimensional their construct system (Winter, 2003). Principal component analysis is calculated by breaking down the total variation in the grid into separate amounts according to the variance in components from largest to smallest (Sim, 2006). The use of the principal component 1 score as a measure of tightness of construing has been researched extensively within the field of personal construct psychology. A number of studies have found an association between neurotic disorder and a tight construct system, 'as reflected in the size of the first two components from principal component analysis of grids (Winter, 1994, p.92). Winter (1994) also describes how the tight construer may be 'highly resistant to modifying his or her construing in the face of evidence which appears to disconfirm it' (p.90). For example, there is evidence that tight construers (as indicated by principal component analysis of their grids) are more resistant to exploratory psychotherapy (Winter, 2003).

Again this measure does not relate specifically to the hypotheses, but rather gives additional insight into the construct system of the participants, highlighting those constructs which are most important to this sample of older people. This data might add weight to any conclusions drawn, or provide a fuller picture of the belief systems of this group of older people.

Additionally, a content analysis of the constructs significantly correlated with the construct 'old' was carried out. This allowed the researcher to identify those constructs that the participants linked to old age. The final analysis of the repertory grids was a comparison between two grids which showed the most contrast on their self-stigmatization score.

It should be highlighted, as Winter (2003) states, that the lack of a standard form of the repertory grid, as each one is the first of its kind when it is developed with an individual, means that general statements about the psychometric properties of the grid are fairly 'meaningless' (p.27).

The SPSS statistical package was then used to carry out correlational analyses between the questionnaire and repertory grid measures in order to assess the hypotheses made at the outset of this research project. The Spearman's Rho, a non-parametric test, was chosen because of the small sample size.

2.8 HYPOTHESES

2.81 Hypothesis One

It is predicted that there will be a negative correlation between self-stigmatizing behaviour towards age and engagement behaviour with mental health services. This hypothesis will be tested by correlating the self-stigmatization repertory grid measure with the Likeliness to Continue to use Services Scale.

2.82 Hypothesis Two

This research expects to find a positive correlation between a participant's awareness of stigma towards their age and/or mental health problem and the amount that they self-stigmatize with regard to age. The Stigma Scale score will be correlated with the self-stigmatization repertory grid score to test this hypothesis in relation to mental

health and age. To assess this hypothesis with regards to age the repertory grid measure for perceived stigma will be correlated with the repertory grid measure of self-stigmatization.

2.83 Hypothesis Three

This predicts that there will be a negative correlation between the amount of stigmatization experienced and the level of optimism exhibited. To assess mental health stigma the Stigma Scale score will be correlated with the LOT-R score. To test this hypothesis in relation to age the repertory grid measure of stigma experienced will be correlated with the LOT-R score.

2.84 Hypothesis Four

This hypothesis makes the prediction that there will be a positive correlation between the level of optimism expressed and the distance the participant places themselves from the label of 'old' within the repertory grid analyses. This will be tested by correlating the LOT-R score with the repertory grid measure of distance from view of old age.

CHAPTER 3 – RESULTS

This chapter will present the results from this research study. Firstly, descriptive statistics will be introduced, showing the important information about each of the variables used in the data analysis. Then, each hypothesis will be analysed in turn. This analysis will be comprised of variables made up from specific measures within the repertory grids and the scores from the other measures used (questionnaires and 11-point rating scale). These results will be presented within a table, showing each hypothesis and the relevant measure used to test that hypothesis, along with the correlation score and the p-value. A narrative of the results will then accompany this table.

Additionally, exploratory analyses of the variables used within the hypotheses which are interesting to the researcher in relation to the overall aim of this thesis will be presented. Following this, a thematic content analysis of the construct 'old' will be carried out for the construct correlations found within the 14 repertory grids. Finally, two contrasting individual repertory grids will be analysed more in-depth from a qualitative perspective.

3.1 DESCRIPTIVE STATISTICS

The aim of this thesis was to investigate the level of self-stigmatization with regards to age and mental health problems amongst older people who were currently using mental health services. Table 3.1 clearly shows that this sample, even though it was small, did cover the whole spectrum of older people, from 65 years of age up to 91 years of age. This table also presents both the mean and median scores for each variable. As there is not a great deal of difference between these two scores for each variable it was decided to use the mean score in discussing the findings, as this is the most commonly used descriptive statistic.

3.11 GHQ12

The GHQ-12, which is a measure of the level of psychiatric distress someone is presently experiencing, has a suggested cut-off score of 2 and above, meaning those who fall at, or above, this score might possibly have mental health problems. Of the 14 participants two scored at the threshold score of 2, and four scored above this cut-

off. The eight remaining participants all scored 0. Based on these scores the mean score for this sample is 3.14, which would be expected for a sample of mental health service users. However, the level of distress of the group as a whole is not high when a boxplot of the scores is studied (Appendix 27). This clearly shows a couple of outliers, and one extreme case, which have resulted in the overall mean score being raised.

3.12 The Stigma Scale

Of interest is the mean Stigma Scale score. This scale was originally normed using a group of mental health service users and the mean was 62.6, with a standard deviation of 15.4. The sample of participants within this study however had a mean score of 29.43, indicating that they reported experiencing substantially less stigma than those on whom the scale was originally normed. Therefore, the level of stigma experienced amongst this sample can be classed as low. However, there is a 59 point difference between the participant who experienced the least stigma (a score of 6), and the participant who experienced the most stigma (a score of 65). This range of scores highlights that all fourteen participants reported experiencing at least some level of mental health stigma, but that there was a great deal of variance in the levels each participant reported. Examining the scores on this scale further (Appendix 28) shows that even though there is a large range of scores for this scale there are no outliers or extreme cases, and that the majority of cases do fall around the mean. Each of the subscale scores for the Stigma Scale also fall below the means of the original norm sample (norms: discrimination mean = 29.1, std. dev. 9.5; disclosure mean = 24.9, std. dev. 8.0; positive aspects mean = 8.8, std. dev. 2.8). This highlights that in addition to this group experiencing low levels of mental health stigma, on average, this group also did not report experiencing much discrimination because of their mental health problems. However, a boxplot of the scores for the Stigma Scale and each of its subscales (Appendix 29) highlights that even though this group on average fell well below the means for each score, there is a quite large range of scores for each scale apart from the Positive Aspects subscale. This suggests that there were one or two participants who did score quite differently from the majority of the sample.

Table 3.1: Descriptive statistics of the study variables (sample size = 14)

	Age	Stigma Score	Dc Score	D Score	P Score	LOTR Score	GHQ12 Score	0-10 Rating Scale	Grid Measure 1 (self-stigmatization of age)	Grid Measure 2 (perceived stigma towards age)	Grid Measure 3 (age stigma experienced)	Grid Measure 4 (difference between self and view of older people)	% Sum of Squares old - young (grid)	Principal Component 1 (grid)
Mean	76.79	29.43	9.57	12.21	7.64	13.64	3.14	8.71	.37	.03	.13	.74	11.14	63.24
Median	76.0	23.50	7.0	10.50	7.50	15.00	.00	9.00	.34	-.03	.19	.75	11.96	59.9
Std. Deviation	7.89	19.56	8.68	10.84	2.47	5.68	5.43	1.44	.38	.78	.59	.27	5.94	14.59
Standardized norm (mean)	N/A	62.6	29.1	24.9	8.8	14.33 - 15.16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Range of scores	26	59	24	35	9	21	18	4	1.52	2.55	2.06	.90	20.89	46.93
Minimum (participant score)	65	6	0	2	3	3	0	6	-.47	-.1.37	-.93	.29	1.33	43.40
Maximum (participant score)	91	65	24	37	12	24	18	10	1.06	1.18	1.13	1.19	22.22	90.33
Max. possible score	N/A	112	48	44	20	24	24	10	Approx. 2.0	Approx. 2.0	Approx. 2.0	Approx. 2.0		100
Cut-off score	N/A	N/A	N/A	N/A	N/A	N/A	2+	N/A	N/A	N/A	N/A	N/A	8.33	N/A

Key:
Dc = Discrimination subscale of Stigma Scale
D = Disclosure subscale of Stigma Scale
P = Positive Aspects subscale of Stigma Scale
LOTR = Life Orientation Test-Revised
GHQ12 = General Health Questionnaire-12
Hyp = Hypothesis
% Sum of Squares
Principal Component 1

3.13 LOT-R

On average, this group of older people were slightly less optimistic, with a mean score of 13.64, than those participants on whom the LOT-R was originally normed (a range from 14.33 – 15.16). However, when examining the spread of scores for this measure using a boxplot (Appendix 30), it can be seen that the majority of scores fall around and above the normed mean, but that there are a few outliers that have skewed the overall mean score. Even though some participants expressed a low level of optimism for the future, all participants spoke of a likelihood to continue to use the mental health services they were presently accessing, with a mean score of 8.71 (maximum score 10).

3.14 Repertory grid

The results from the repertory grid measures related to stigma highlight the range of experiences of age-related stigma that these participants have had. The mean self-stigmatization score suggests the group as a whole show very minimal signs of internalizing age-related stigma with a mean score of .37 (with a score of 0 indicating no internalization of age-related stigma). However, some participants did show evidence of self-stigmatization with one participant scoring 1.06, indicating that this older person did self-stigmatize because of their age (scores on this measure range from a minimum of approximately -2.0 to a maximum of approximately +2.0). The higher the score on the repertory grid measures the more the individual sees themselves as having moved away from their ideal situation in relation to age. Additionally, the lower the score the more the person sees themselves as having moved closer to their ideal and, if they score 0 then there has been no movement in how they see themselves now in relation to their ideal age.

The second repertory grid measure for perceived age stigma suggested that as a whole this group of older adults do not show signs of perceiving stigma towards themselves because of their age (mean score .03). The range of scores for this measure though is large (range 2.55), with some participants demonstrating some levels of perceived age stigma (with a high score of 1.18). However, on the whole it can be suggested that this group of participants were generally unaware of any stigma towards old age.

The measure for age stigma experienced also has a large range of scores (2.06) but the overall mean score is very low (.13), suggesting that these participants generally experienced very low levels of stigma towards their age.

The fourth repertory grid measure found that the group did show signs of distancing themselves from the label of 'old' (mean .74), but that these scores were not particularly high.

When examining the importance of the construct 'old - young' within the repertory grid it is worth pointing out that there are 12 constructs within the repertory grid. Therefore, if each construct was given equal importance by the participant, a percentage Sum of Squares score of 8.33 would be expected. As can be seen within Table 3.1, the mean score for this variable is 11.14, which suggests that the construct of 'old - young' holds quite a high level of importance, on average, for these participants.

The last variable to describe is the degree of tightness of construing (principal component 1), with higher values indicating a greater level of tightness of construing. As a whole, this group are generally 'tight' construers, which means that the participants in this group tend to make unvarying predictions about the world based on their belief systems (Winter, 1994).

3.2 CORRELATIONAL ANALYSIS

This study was designed to identify possible correlations between participants' scores on specific questionnaire measures, an 11-point rating scale, and specific scores within their repertory grids. The first analysis conducted using SPSS was to produce scatter plots, in order to screen the data for any anomalies, (an anomaly is something unexpected and different from the norm). As no anomalies were found it was decided to test the hypotheses using the Spearman's Rho non-parametric test.

3.3 HYPOTHESES

3.31 Hypothesis 1

This prediction was shown to be false as there was no correlation between the repertory grid measure of self-stigmatization of age and the Likelihood to Continue to Use Services Scale with a correlation coefficient of .07 (p-value .41, one-tailed).

3.32 Hypothesis 2

The test of this hypothesis in relation to mental health and age stigma demonstrated no correlation between the Stigma Scale score and the repertory grid measure for self-stigmatization (correlation coefficient of -.19, p-value .26, one-tailed).

There was also no correlation between perceived age stigma and self-stigmatization related to age, with a correlation coefficient of .13, p-value .32 (one-tailed). This result indicates that for these participants there is no relationship between perceiving stigma towards age and showing self-stigmatization based on age.

3.33 Hypothesis 3

The results indicate that experiences of both mental health and age stigma are not correlated with optimism. The correlation coefficient for the test of the Stigma Scale against the LOT-R scale at -.06 (p-value .85, one-tailed) demonstrates no correlation for the measure of mental health stigma. The repertory grid measure for stigma experienced (in relation to age) also was not correlated with the LOT-R score with a correlation coefficient of .05 (p-value .43, one-tailed).

3.34 Hypothesis 4

When the LOT-R was correlated with the repertory grid distance between the participants' view of themselves and their view of older people a correlation coefficient was produced of .07 (p-value .80, one-tailed), meaning that there was no

Hypothesis	Spearman's Rho correlation	P value (1 tailed)	Decision on hypothesis
1. The more the participant self stigmatizes the less likely they are to continue to engage with services *measured by:* Repertory grid measure of self-stigmatization (age) v. Likelihood to continue to use services scale	.07	.41	No correlation - rejected
2. The more awareness the participant has of stigma towards their age and/or mental health problems, the more they will self-stigmatize *measured by:* a) Stigma Scale score v. repertory grid measure of self-stigmatization (age)	-.19	.26	No correlation – rejected
b) Repertory grid measure of perceived stigma (age) v. repertory grid measure of self-stigmatization (age)	.13	.32	No correlation - rejected
3. The more stigmatization the participant has experienced the less optimistic they will be about their future *measured by:* a) Stigma Scale score v. LOTR score	-.06	.85	No correlation – rejected
b) Repertory grid measure of stigma experienced (age) v. LOTR score	.05	.43	No correlation - rejected
4. Those participants who are more optimistic will be more likely to distance themselves from the label of 'old' *measured by:* LOTR scores v. repertory grid measure of 'old'	.07	.80	No correlation - rejected

Table 3.2: Analysis of hypotheses (Sample size – 14 participants)

correlation between a participant's level of optimism and how far they distanced themselves from the label of 'old'.

3.4 EXPLORATORY ANALYSIS

3.41 Grid measures

Hypothesis 2 was trying to identify a correlation between stigma perceived and the amount a participant self-stigmatizes. Both measures of this hypothesis found no correlation between the measure of stigma (mental health and perceived age stigma) and the grid measure for self-stigmatization. As the Stigma Scale is a measure of stigma against mental health problems, and the repertory grid is specific to age, a correlation coefficient between these two measures was carried out. This highlighted that the two measures are not correlated at -.11 (p-value .35, one-tailed), confirming that they are measuring two separate instances of stigma and are not correlated.

The repertory grid measure for stigma experienced (age) was also correlated with the repertory grid measure for self-stigmatization (age). This was moderately correlated at .55 (p-value .02, one-tailed), indicative that the repertory grid measure for age stigma experienced correlates positively with the measure for self-stigmatization of age. Based on this effect size, the observed power for this calculation, using the GPower3 programme for a post-hoc analysis, was 81%, which is a high level of power.

To explore this further the repertory grid measure for perceived age stigma was correlated with the repertory grid measure for age stigma experienced. This however, did not produce a correlation, with a correlation coefficient of .10 (p-value .38, one-tailed). Therefore, the repertory grid did identify some self-stigmatization which was associated with experiencing age stigma, but the results indicate that perceiving age stigma alone is not sufficient for self-stigmatization of age to occur.

The small sample size might have played a part in the lack of significant findings amongst the repertory grid measures as Winter (2003) states that a sample size of at least 20 is 'generally considered necessary to provide sufficient statistical power when using repertory grids in research' (p.33).

3.42 Further analyses – GHQ-12

As one of the questions to be answered by this thesis was concerning the participants' level of optimism, it would be useful to look at whether there was any correlation between distress levels, measured by the GHQ-12, and the LOT-R (which measured optimism). The correlation coefficient of -.63 (p-value .01, one-tailed) shows that there was a moderate negative correlation between these two variables, meaning that as one score decreases so the other increases, for instance the higher the participant's level of distress the less optimistic they are about their future. This effect size had an observed power level of 90%, when a post-hoc GPower3 power calculation was carried out, which is very high. The meaning of this finding will be explored in the Discussion chapter.

The percentage Sum of Squares score on the repertory grid is a measure of how important each construct is to the participant. Of central concern to this thesis is how important 'old - young' is to this sample of participants. Looking for a possible correlation between this score and the GHQ-12 score of distress level revealed a moderate positive correlation of .58 (p-value .03, two-tailed). This indicates that the greater the participants' level of distress the more important the 'old' construct is to them.

A further analysis involved the GHQ-12 score and the Principal Component 1 score, which indicates how tight a participant's construing is. This correlation coefficient was -.67 (p-value .01, two-tailed), revealing a moderate to high negative correlation. Therefore, in general, the higher the participants' level of distress the looser their construing, meaning their belief system is open to frequent change, and what they believe on a certain day might be different on the next. This can result in the behaviour of a loose construer being difficult to understand, and it may at times appear bizarre (Winter, 1994).

3.43 Further analyses - % Sum of Squares

It would be of interest to explore whether there was any correlation between the importance of 'old' as a construct to participants and their scores on the stigma measures.

The correlation coefficient between the Sum of Squares score and the Stigma Scale score revealed no correlation at -.18 (p-value .55, two-tailed), meaning there is no link between participants' experiences of stigmatization towards their mental health problems and how important the construct 'old' is to them.

When the Sum of Squares score was correlated with the perceived age stigma score from the repertory grid there was a correlation coefficient of .22 (p-value .46, two-tailed). There was also no significant correlation (.24, p-value .40, two-tailed) between the Sum of Squares score and the self-stigmatization (age) score on the repertory grid. Additionally, there was no correlation (.31, p-value .27, two-tailed) between the Sum of Squares score and the level of age stigma experienced score from the repertory grid. In summary, these scores reveal that how important 'old - young' was as a construct to the participants had no relationship with how much age stigma these individuals had experienced, were aware of, or how much they internalized that age stigma towards themselves.

3.44 Further analyses – Principal Component 1 (PC1)

The level of tightness versus looseness of construing might have an impact on the behaviour of participants. Therefore, it was decided upon discussion with an expert in the use of repertory grids that it might be worth looking at the relationship between the PC1 score and how likely this sample of participants was to continue to use mental health services. This revealed no correlation (.08, p-value .80, two-tailed), suggesting how fixed a participant was in their belief system had no bearing on whether or not they were likely to continue to use services.

The correlation coefficient between PC1 and the repertory grid measure for self-stigmatization with regard to age again revealed no correlation (.00, p-value .99, two-tailed). This finding indicates that for these participants the level of construing has no relationship with the internalization of any age stigma they have experienced, and has no impact on whether they continue to use services or not.

3.5 CONTENT ANALYSIS OF REPERTORY GRIDS

The underlying subject area of this thesis is that of what old age means to those aged 65 years and above. Using the repertory grids it was possible to examine the

correlations the construct ‘old - young’ had with all the other constructs elicited from the participants. A correlation of at least 0.60 was deemed to be statistically significant (based on N = 11 elements in the repertory grid). Therefore, all those correlations which fell at 0.60 and above were studied using content analysis to explore what constructs had significant positive correlations with ‘old - young’. Winter (1992) reported that the most commonly used system for the content analysis of elicited constructs is that by Landfield (1971). This method classified the construct poles using 22 categories, with the use of all 22 categories allowing a comprehensive classification to be carried out, although some of the categories have been found to have higher inter-rater reliability than others (Winter 1994). These 22 categories were formed from numerous research studies which Landfield conducted, with the categories showing the highest inter-rater reliability being selected to be part of the final list. Winter (1994) also states that the other classification systems developed for content analysis of constructs generally have a more limited range of categories. Winter (1994) goes on to acknowledge the use of Landfield’s method in clinical work to investigate a variety of issues. Therefore, it was deemed that this was the most suitable method to use for the content analysis of the constructs within this research project.

Table 3.3 shows the percentage of constructs that fell into each classification category. The majority of constructs that were positively correlated with the ‘old’ pole of the ‘old-young’ construct fall within the ‘less forcefulness’ category, which covers statements concerning energy, persistence, intensity, etc. Examples of construct poles elicited from the participants include being less energetic, tired and being slower to move around.

The category of ‘self-sufficiency’ can be divided into low self-sufficiency and high self-sufficiency. Within this group of participants constructs that were positively correlated with the ‘old’ pole of the ‘old-young’ construct fell into both ends of this category, making up 31.8% of the total number of constructs positively correlated with the old pole of the ‘old-young’ construct. Self-sufficiency constructs include statements indicating independence, confidence, ability to problem solve, etc. Constructs that were deemed to fall within the high ‘self-sufficiency’ category were being mature, being comfortable with oneself, and being experienced as a person.

Those constructs that were classified within the low 'self-sufficiency' category include being of poor health and being less mobile.

'Less intellective' and 'emotional arousal' both had 13.6% of constructs which were significantly positively correlated with the 'old' pole of the 'old-young' construct. Intellective covers statements indicating intelligence or intellectual pursuits, or the opposite. Participants within this sample spoke of a link between old age and being forgetful and having memory problems. This possibly had consequences for any intellectual pursuits undertaken because a good memory is likely to be necessary in order to participate in these activities. Emotional arousal refers to strong feelings attributed to a person. Constructs such as being grumpy and a worrier were offered by participants, which were deemed to fall in this category.

Participants spoke of older people being successful and respected, placing them in the 'high status' category, which refers to either, having or striving to have some kind of status. Participants also spoke of being less 'involved' with increasing age, they spoke of having less interests, and being less busy.

Finally, with 4.5% each was 'inactive social interaction' and 'high tenderness'. Social interaction refers to face to face, ongoing interaction with others, and these participants equated old age with being less social active. However, this group of participants did speak of older people being more understanding of others, placing them in the 'high tenderness' category.

Classification Category	Number of constructs	Percentage of constructs
Social interaction (Inactive)	1	4.5
Forcefulness (Low)	5	22.7
Organisation (High or Low)	0	0
Self-sufficiency (High)	4	18.2
Self-sufficiency (Low)	3	13.6
Status (High)	2	9.1
Factual description	0	0
Intellective (Low)	3	13.6

Self-reference	0	0
Imagination (High or Low)	0	0
Alternatives (Multiple description, inferable alternatives, open to alternatives, or closed to alternatives)	0	0
Sexual	0	0
Morality (High or Low)	0	0
External appearance	0	0
Emotional arousal	3	13.6
Diffuse generalisation	0	0
Egoism (High or Low)	0	0
Tenderness (High)	1	4.5
Time orientation (Past, future, or present)	0	0
Involvement (Low)	2	9.1
Comparatives	0	0
Extreme qualifiers	0	0
Humour	0	0

Table 3.3: Content analysis of constructs significantly positively correlated with 'old – young'

3.6 COMPARISON OF TWO CONTRASTING REPERTORY GRIDS

The repertory grid has been introduced to this thesis as a technique for exploring the personal construct systems of individuals. Fransella, Bell and Bannister refer to it as 'an attempt to stand in others' shoes, to see their world as they see it, and to understand their situation and their concerns' (2004, p.6). The aim of this research study was to explore the belief systems of a sample of older people who currently use mental health services, to try and assess the level of self-stigmatization they exhibited with regard to their age, and mental health problems. Therefore, in order to explore this further, it was decided to qualitatively analyse the repertory grids of the two individuals who had the most distance between their self-stigmatization measure scores (on the repertory grid) (measuring age self-stigma).

Variable	Participant A	Participant B	Mean
Gender	Male	Female	
Age	72	87	76.79
Stigma Score	44	11	29.43
Discrimination subscale	23	1	9.57
Disclosure subscale	14	2	12.21
Positive aspects subscale	7	8	7.64
LOT-R	6	13	13.64
GHQ-12	9	0	3.14
Likelihood to continue to use services scale	8	10	8.71
Grid measure – Self-stigmatization (age)	-.47	1.06	.37
Grid measure – perceived age stigma	-.21	.83	.63
Grid measure – Age stigma experienced	-.65	.55	.13
Grid measure – self now v. their view of older people	.57	.95	.74
% Total Sum of Squares	14.16	8.19	11.14
Principal Component 1	47.41	60.23	63.24

Table 3.4: A comparison of the variables for the two-grid analysis

Table 3.4 presents a comparison of the variables used for the data analysis for the two participants chosen for the two-grid analysis, with the mean of the sample also shown for ease of interpretation.

Participant A

This participant had a negative score on the age self-stigmatization measure meaning his view of himself as an older person is more favourable than that of his younger self. Of interest was his relatively high scores for his overall Stigma Scale score (concerning mental health), and his subscale score for Discrimination, in comparison with the mean for this sample group.

However, during the interview this participant did speak of his mental health problems throughout his life and the stigma he experienced as a younger man of working age. These mental health problems were still causing him concern because he rated highly on the distress level provided by the GHQ-12. He also had a low level of optimism for his future in general, and in comparison to the other participants within this project.

The scores for the repertory grid measures about age stigma suggest that participant A believed he was closer to his ideal self now than when he was younger, and being stigmatized because of his mental health problems. There was also not a great deal of difference between his view of himself now, and his view of other older people. This suggests that for participant A viewing himself as not that different from other older people did not involve viewing himself as less similar to his ideal self.

It was evident by participant A's score on the percentage Sum of Squares that the construct 'old' is important to him. However, old age for this participant had positive connotations, reflected in the construct loadings for his repertory grid, where he equated old with, for example, having concern for others, being stable in personality, having wisdom, being experienced and being less selfish. Participant A's construct system also seems balanced in terms of being flexible but not at an extreme of being 'loose' or 'tight' in his construing.

Participant B

This participant had the highest score for self-stigmatization of age amongst all participants. This suggested that this participant viewed herself as an older person considerably more negatively than the way she viewed herself when younger. This participant had only experienced mental health problems in more recent years, although she had not experienced a great deal of mental health stigma as a result of these difficulties. She also did not feel these problems were causing her concern as she reported no distress at all. Participant B's level of optimism was also at the mean score for the sample, suggesting she did not view her life as an older person totally negatively. The stigma scores produced from her repertory grid are not high but still suggest this participant was aware of, and had experienced stigma due to her age. However, 'old' as a construct was not important for this participant, with her score

falling below the average of the sample and being at the level to be expected if all constructs were equally weighted. The construct poles she equated with old age though were all negative: lacking in energy, being dependent, having memory problems, being less active, being unhappy and being less mobile. So, even though this participant did not see 'old' as being important within her construct system, she did perceive old age in a negative light. Her principal component score also suggested that she was relatively fixed in her belief systems, with a score suggesting she construed the world fairly tightly.

Comparison

For these two participants the differences lay in the way they construed old age – participant A enjoyed his life more now that he was older, feeling there were a number of positive attributes equated with old age, whereas participant B thought of old age in a negative light, even though these things did not matter to her personally. The differing mental health problems for these two participants had meant that they had differing experiences of mental health stigma and stigma towards old age, i.e. participant A had experienced mental health stigma in younger years but had not experienced any stigma recently. However, participant B felt that she had experienced some age stigma, and internalized some of this stigma, as a result of being an 'older person'.

3.7 GENDER DIFFERENCES

A comparison of the data collected shows that on the whole there were no great differences between male and female participants in their answer (Appendix 31). The participant group was made up of eight females and six males and the mean age for both sexes was equal, 76 years of age. Generally, levels of mental health stigma were similar with females scoring slightly higher on the overall Stigma Scale score and the subscale score for disclosure, but these differences were not great enough to prove significant.

The only other obvious discrepancy in scores comes with the Principal Component 1 score, with males scoring higher on their level of tightness of construing (mean 69.33) than women (mean 58.67). This finding suggests that this group of older men show

more rigidity in their thinking patterns than the women, whose construct systems are perhaps more open to change.

Overall though this sample group show very similar patterns of construing in relation to their age, and also scored similarly on levels of distress, optimism, likeliness to continue to use services and mental health stigma.

CHAPTER 4 – DISCUSSION

This research project was designed to explore self-stigmatization with regard to age, and to consider the concept of self-stigmatization of mental health problems, amongst a group of older people who were using mental health services at the time. This chapter will attempt to make links between the findings of this research project and the original hypotheses and aims of this study, first outlined in Chapter 1, as well as the available literature. These findings will then be discussed with regard to possible explanations for the findings, which will lead into implications for the findings and possible areas of further research. The limitations of this piece of research that have been identified will also be discussed, again with links to possible future research.

4.1 HYPOTHESES

All hypotheses for this study were disproved, which might indicate that for this group of older people with mental health problems there is no relationship between experiences of mental health and age stigma and self-stigmatizing behaviour, predicted future use of mental health services, optimism, and how closely they identify with the label of 'old age'. However, other factors could account for the lack of significant findings, such as the small sample size. Additionally, hindsight has indicated that there might be important demographic information which might have had a bearing on the responses given by participants which was not originally collected (this will be explored more fully below).

What was found though was evidence that this is a subject area worth exploring further with a number of possible avenues of future research. One important finding was that found as a result of the analysis of Hypothesis 2. This hypothesis predicted that having a greater awareness of stigma towards old age and/or mental health problems would lead to an increased level of self-stigmatizing behaviour with regard to age. The finding that there was no correlation between the repertory grid measures for perceived age stigma and self-stigmatization of age, indicated that having an awareness of stigma towards their age had no bearing on whether participants self-stigmatized or not as a result of their age. There was, however, a correlation between the age-stigma experienced repertory grid measure and the repertory grid measure of self-stigmatization (age). This relationship seems to support Corrigan and Watson's

(2002) model of self-stigma which was introduced earlier in this thesis as an important theoretical model to this research, which stated that self-stigmatization results following the internalization of a stereotype which is acknowledged and accepted. It would seem that for this group of older people who have mental health problems perceiving stigma towards old age was not related to any self-stigmatization because of age, but that experiencing age stigma personally was. Therefore, this finding seems to confirm Corrigan and Watson's (2002) model in that perceiving stigma is not sufficient for it to be internalized but that being on the receiving end of it makes it more likely that it is believed and used against the self.

4.2 ADDITIONAL ANALYSES IN RELATION TO 'OLD AGE'

An interesting finding was that the GHQ-12 correlated positively with the importance of 'old' as a construct for these participants, yet correlated negatively with tightness of construing. The first finding indicates that the more old age is a superordinate issue (meaning it is highly important) for the participants (and perhaps, therefore, the more they are concerned about their own ageing), the more distressed they are.

The second finding that distress levels rise with increasing looseness of construing indicates a different direction of relationship to that generally found in younger (non-psychotic) samples, where tight construing has often been associated with higher levels of anxiety and depressive symptoms (Winter, 1994). This finding indicates an area for further possible research. However, it is also indicative that a higher level of confusion (associated with looser construing) is related to greater distress or mental health problems amongst this group of older people.

Additionally, the participants' concept of old age was not affected by experiences of mental health and/or age stigma or self-stigmatization (age). Further analyses of the rigidity of participants' construing revealed that this had no bearing on their behaviour in relation to their likeliness to continue to use services and the amount they self-stigmatize with regard to age.

The finding that there is a moderate negative correlation between the GHQ-12 and the LOT-R is interesting in comparison to the lack of a correlation between levels of distress and stigmatization amongst the participants. This indicates that for these

participants optimism was not affected by experiences of stigmatization towards either their mental health problems, or their age, as was originally predicted. However, participants' optimism was negatively associated with their level of distress. This study did not measure causality though, and therefore, direction of association cannot be stated, i.e. it is not known whether high optimism leads to less distress, or whether low distress levels lead to greater optimism. Research by Scheier and Carver (1992), found higher levels of optimism helped keep levels of mental wellbeing high in a number of studies. This is interesting when considering the result found within this study, but a casual relationship cannot be inferred from the findings of this piece of research.

It should be noted that the relationship between any two grid measures may be artefactual in that it may reflect more general properties of the grid (David Winter, personal communication, 10th October, 2008). For example, it has been shown by Adams-Webber (1989) (cited in Winter, 1994) that 'self-other differentiation is one of the most stable grid measures' (p.157), and that most grid measures are related to the average distance of the self from other elements (David Winter, personal communication, 10th October, 2008).

4.3 THE MEANING OF OLD AGE

The content analysis of construct poles indicated which constructs the participants aligned with old age. For this group of older people later life holds both positive and negative aspects. On the negative side participants spoke of poorer health and mobility in old age, and having less energy and suffering with memory problems. However, positive attributes of old age included greater maturity, an understanding of other people, feeling respected and also having a feeling of comfort with themselves and life in general.

4.4 TWO-GRID COMPARISON

The comparison of the scores for the two participants whose repertory grid self-stigmatization scores in relation to age were the most different added further weight to the finding that mental health stigma and ageism are not linked within this sample of older people. Participant A had experienced stigma towards his mental health problems when he was of working age, having suffered with his difficulties

throughout his adult life, but he had found old age to be a positive experience. In contrast, Participant B had not suffered stigmatization as a result of mental health problems, having only experienced difficulties since reaching old age. This possibly explains why she exhibited self-stigmatizing attitudes towards her age, yet her level of optimism was in line with the mean of the group, and higher than that of Participant A.

4.5 SUMMARY OF ANALYSES

What the two-grid comparison demonstrates, along with the statistical analyses, is that there are no straightforward answers when addressing the issue of age and mental health problems and any resulting feelings of self-stigmatization amongst older people. These contradictory findings are in line with conflicting research that was first identified in the literature review for this thesis (Griffiths, 2007). In Chapter 1 research by de Mendonça Lima *et al.* (2003) was introduced which identified the shame attached to both mental illness and old age, thereby creating a double stigma. However, the review of the literature by Griffiths (2007) acknowledged the apparent lack of knowledge and understanding of this phenomenon. This thesis was always intended as a first step towards trying to address this issue, a pilot study, rather than trying to build on an already existing body of research evidence. It is felt that this study has opened up an avenue to further research in this area, identifying a number of different lines of possible research, as there is no conclusive result from this thesis, therefore leaving questions still unanswered.

4.6 POSSIBLE EXPLANATIONS FOR FINDINGS

4.61 Counterfactual thinking

Researchers within psychology have investigated the thoughts or statements people use when travelling back through their memories in order to explore alternative outcomes. These thoughts have been referred to as ‘what if’ and ‘if only’ thoughts and come about through the mental time-travel people undertake in everyday life. Kahneman and Tversky (1982) thought of counterfactual thinking as a way of examining how a past event might have been “undone”, or altered, and a way of considering what would happen if a slight change were to be made to a historical record (Mandel *et al.,* 2005). Kahneman and Tversky (1982) also suggested that how people responded emotionally to the actual events was a direct consequence of the

ease with which events can be undone (in the mind). Kahneman and Miller (1986) highlighted that counterfactuals tend to have a direction, either being upward (i.e. better than reality) or downward (i.e. worse than reality) (Mandel *et al.,* 2005). Downward counterfactuals have been described as making people feel good about themselves as they are able to see their realities more positively, in comparison to how bad it could have been. Therefore, their emotional responses are better regulated because of their awareness of how much worse things could have been for them (Mandel *et al.,* 2005).

This is an interesting concept to think about in relation to the participants of this sample who did not appear to be affected by the stigma they experienced in relation to their mental health problems, and showed minimal self-stigmatization with regards to their age. It is possible that these participants have reflected on their lives in light of the mental health problems they now experience in later life, and having weighed up their lives now in comparison to how they could have been, have decided that all things considered they do not have much to complain about.

4.62 Habituation

Another possible explanation for the overall finding that this sample of older adults with mental health problems did not self-stigmatize with regard to their age, and saw old age in a very realistic way, is to do with habituation. Simply defined, habituation is the decreased response to repeated stimulation (Groves & Thompson, 1970). Jaycox *et al.* (1998) describe it as a decrease in self-reported anxiety and anxiety-related autonomic responses when faced with feared stimuli. The implication of this is that it is possible emotional habituation is used in later life as a way of repelling the negative thoughts attached to it, by others and by the self. No link has been made in the literature between emotional habituation and stigma but there is nothing to say that habituation is not used as a strategy to protect oneself against stigma experiences and to retain a good level of self-esteem.

The concept of emotional habituation is similar to that proposed by psychological immunization, which refers to a process where people develop resistance to adverse life events through repeated exposure (Henderson *et al.,* 1972). Psychological immunization is not just emotional control and better coping skills however; rather, it

involves a reduced emotional response to a specific stressful event (Jorm, 2000). Therefore, perhaps older people have developed a 'thick skin' to negative events and hardship which they have experienced throughout their life and therefore difficulties faced in later life, including stigma from society, are not novel enough to induce heightened emotions.

4.63 Adversity amongst this cohort

Taking this idea a step further, it is likely that this cohort have had to endure adversity in their childhood and early adulthood, with some of this sample being alive in both World War I and World War II. Even for those participants who were younger, they would still have grown up in the post-war era where rationing was still in effect and financial hardship was common place. Therefore, it is possible that this sample of the current cohort of older people is actually better off now than they have been at any other time in their lives, regardless of the stigma towards mental health problems and old age. Some participants did actually speak of their early life experiences of growing up, and fighting, during the War. They spoke of how difficult life was for them when they were younger, and that today they are financially comfortable and have experienced so much adversity that they are 'copers', who battle on and survive. Being experienced was an important construct in the analysis of the repertory grids, and it can be supposed that the life events that these participants have had to endure, and cope with, have equipped them with skills that have enabled them to cope with a lot more in today's society, as a result. Folkman *et al.* (1987) discuss how it is not stress itself that affects health and well-being, but how people cope with it. These authors also talk of a cohort interpretation of age-related changes in coping, which suggests that people of different ages have different coping styles because they grew up under 'historical conditions in which the cultural outlook and patterns of behaviour were divergent' (p.173). Gross *et al.* (1997) reviewed a number of studies which found that as people age so they generally report feeling less intense and less frequent emotions. It is possible then that as these participants have faced difficult times in old age so they have experienced less intense and less frequent emotions, and that this combined with their life experience of coping with adversity, has equipped them to cope with stressful situations in a composed manner.

4.64 Social support and identity

However, there is another factor which might account for how these older adults have coped with the double stigma of having mental health problems and being aged over 65 years. A variable which was not analysed during this study (as the researcher did not want to overburden participants with a lengthy interview process), but became apparent during the interviews, was the amount of social support each participant had and how this impacted on their outlook on life. Penninx *et al.* (1997) highlighted the research evidence suggesting the beneficial effects that social support has on both physical and mental health. These authors found that amongst a sample of older people having a partner had a greater positive effect on well-being that did having a close network of family, friends, etc. In addition to this, self-esteem has been described as a collective concept, made up from approval from others, having belief in God, etc., rather than being solely down to an individual (Crocker & Quinn, 2004). This suggests that people will feel better about themselves, generally, if they have a place within their society which provides them with this self-esteem.

In light of these findings and linking it to the participants of this study, I was aware of participants who lived with their partners; of individuals who lived alone having lost their partners, but who had close family; and those who lived alone having lost their partners but who had no support system. Therefore, in future research of this nature, it would be worth gathering information about social support and also whether the participant has strong religious or faith beliefs (which is something a few participants did mention as being an important part of how they coped with the difficulties they faced).

Social support can also be gained from feeling part of a group, and having a social identity, even if this group is discriminated against. Crocker and Quinn (2004) described group identification as acting like a buffer against the negative consequences of being discriminated against, resulting in self-esteem being protected. This supports the work by Gartska *et al.* (2004) which found older people identified with their peers, to the benefit of their emotional well-being. The value of social support/social identity in relation to psychological well-being is also worth considering in relation to the finding of this study that older people place strong importance in their age as a construct and that they see themselves as similar to their peers. Even though data on the social support networks of these participants was not

collected, which is explained in greater depth below, participants who accessed their local Day Hospital facility did talk of the support they received there, and how the staff and other older people there were like family and friends.

4.65 Repressive copers

An alternative slant on the psychological well-being of older people was tested by Erskine *et al.* (2007), when they looked at repressive coping amongst a sample of healthy young and older adults. This study found that the older people reported better health and overall outlook on life than younger adults, which was linked to their ability to better repress potentially negative thoughts. However, the finding of better health amongst older adults was also found amongst those who were classed as non-repressors, which suggests that it was something other than the ability to repress negative thoughts that gave these participants their good health.

4.7 CLINICAL IMPLICATIONS

The main finding from this thesis was that older adult users of mental health services are aware of experiencing stigma towards their mental health problems, but do not seem affected by this stigma, yet they do internalize negative age stereotypes they have experienced. The levels of self-stigmatization towards age were lower than had been anticipated, with only four participants indicating self-stigma scores of any substance. As the sample size was very small, it was not possible to generalize these results to the general population. However, it was possible to extrapolate the number of participants who showed signs of age related self-stigmatization into the larger population. As there is no cut-off as to what is significant in the repertory grid element distance measures, but it is known that such scores rarely exceed 2.0 (J. Grice, personal communication, 20th October, 2008) the researcher decided to use 0.5 as a cut-off point. This decision was made based on the fact that a score of 0 represented no evidence of self-stigma, and above that value was indicative of self-stigmatization. The cut-off of 0.5 was felt to be a level at which self-stigmatization would be apparent in an individual's presentation. Using this criterion it was found that four out of fourteen participants showed evidence of self-stigmatization with regards to their age, which equates to 28.6% of the sample. Therefore, if one was to consider the service users of older people's mental health services, from the finding of

this thesis it can be hypothesised that nearly 29% of those individuals would exhibit note-worthy signs of self-stigmatization towards their age.

It was hoped that this study would provide insight into what it is that enables some older people to access mental health services, but not others, in light of the underutilization of mental health services by older people, as reported by Hatfield (1999), Qualls *et al.* (2002), and Robb *et al.* (2002).. The sample of older people interviewed in this project spoke positively about the help they had received from mental health services, whether that was psychotherapy, or accessing the local Day Hospital for functional mental health problems in older people. In addition, they also all spoke of intending to continue to use these services. However, as 29% of older people can be assumed to be self-stigmatizing because of their age, mental health professionals need to keep an open mind as to how an older person engages with the service, or responds to psychotherapeutic interventions.

Behaviour on the part of older people as a result of self-stigmatization of age should also be considered in encouraging older people to use mental health services to begin with. As this study was unable to access older people who were not users of mental health services it is hard to know if self-stigmatization of age has prevented older people from using the services available in the first place. Therefore, the finding of this research could perhaps help older people's mental health services consider how they inform older people of services available and whether there is anything that can be done to overcome the self-stigmatization of age that it is now known does occur in some older people with mental health problems.

4.71 Engagement behaviour

Within this sample future engagement behaviour was rated as high. However, it is possible that this is not an accurate prediction as the participants might have felt a pressure to state their appreciation and loyalty to the services they received, because they were being asked about that service by a mental health professional. Alternatively, the fact that these participants agreed to take part in the research initially is perhaps indicative of their good engagement behaviour with the service to begin with. Ideally, future research would use a sample of older people who had disengaged with mental health services, or had refused to engage from the outset. This

might then allow a clearer picture as to reasons behind the underutilization of mental health services for older people.

4.8 LIMITATIONS

4.81 Sample size

It is worth considering that the fact that the original hypotheses were not supported by the findings of this study might be a consequence of the small sample size. However, as has been shown in Chapter 3 the small sample size was still powerful enough to detect correlations that were large in effect size.

4.82 Recruitment

However, recruiting older people into research projects is known to be an inherent problem, as discussed by Thompson *et al.* (1994). Research by Freret *et al.* (2003), Greaney *et al.* (2007) and Zimmer *et al.* (1985) has identified that direct contact between the researcher and the potential participants at the recruitment stage is important in gaining consent, as this allows older people to clarify any issues they might have regarding participation. In the recruitment stage of this study the researcher was not directly involved as it was thought direct contact with potential participants might lead to a sample bias and participants feeling coerced into consenting to participate. Instead, the researcher had to rely on mental health professionals within the Trusts to speak to their clients about the study and to offer them a participant pack. In hindsight, it is possible that this method of recruiting had a bearing on the numbers recruited from each location as some of the mental health professionals knew the researcher personally, whereas others were only contacted in relation to this study.

However, related to recruitment of participants is the fact that sampling bias may have occurred anyway through the mental health professionals in each recruitment site possibly approaching service users whom they had a strong alliance with in the hope of them agreeing to participate. This may have resulted in the participants feeling coerced into consenting to take part in order to please the mental health professional. Alternatively, having a strong alliance with the mental health professional might mean that they have had a positive experience of their engagement with the service and are therefore more likely to indicate their continued use of the service.

In relation to this is also the location of the recruitment sites. One of the sites used was in South Wales, where the researcher is originally from, and the other two sites were in two different regions of South East England. Of the 14 participants recruited, half of them were from the South Wales site. Therefore, in future research, it might be worth contrasting a sample of older adults in South Wales to a sample of older adults in different parts of England, for example, a new town, and a more rural location, etc. to compare recruitment, as well as the differing experiences, of these samples.

4.83 Methodology used

Thinking about the type of methodology used for this study, it is probable that the older people approached for this study were unfamiliar with a repertory grid. This might have had a bearing on the number of people who consented to take part, as perhaps the unknown was too daunting to think about. However, although some participants initially had difficulty understanding the process of the repertory grid, once the repertory grid completion got underway they had no further concerns. Another issue concerning the methodology used for this project was the lack of a sufficient measure to assess mental health self-stigmatization. In hindsight it would have been possible to include measures within the repertory grid that would have assessed mental health self-stigmatization amongst these participants.

However, the original aim of this thesis intended to look at ageism amongst older people and whether they internalized this ageist stigma, and the researcher was conscious of keeping the research interview at a reasonable duration so as to be able to complete it in one sitting and to not over-tax the participants.

An additional problem with the methodology was that this was the first piece of research of its kind and therefore the stigma measures already in the literature did not adequately address what this project proposed to examine. As a result measures for stigma and self-stigmatization towards age were developed using the repertory grid. It is possible that further self-stigmatization instruments need to be developed in the future if this line of research is to be explored further. As was noted earlier in this thesis there are measures available to assess the self-stigma of mental health problems but they were deemed unsuitable for the purposes of this project. However, in future

research of this type these measures could be used as they would at least give some insight into self-stigmatization as a result of mental health problems, rather than only being able to infer the existence or otherwise of this.

As this repertory grid was the first of its kind its validity as a measure of self-stigma of age can not be assessed. However, numerous research studies reviewed by Winter (1994) have been carried out which demonstrate the validity of measures of self-construing derived from grids. These studies demonstrate evidence of repertory grids being valid in measuring the construing of the self in relation to other elements and therefore it can be supposed that the grid used in this study would show a similar validity if repeated.

4.84 Demographic data

During the interviews information about the participants came to light which provided additional insight into their answers and perhaps it was an oversight on the part of the researcher not to formally collect and assess this data. Information such as marital status; support networks (be that friends or family); accommodation arrangements; and physical health concerns are all variables that can have a significant impact on an individual's mental wellbeing and their outlook on life. This data might have had a bearing on the answers of the participants in this study but because it was not routinely collected conclusions as to its importance can only be presumed and indicated as an area of further research. For instance, how optimistic a participant was about their future might have been hugely affected by their physical health status. Additionally, the level of distress of participants might be dependent on having family and friends around them to help them and make their lives worthwhile, or it might be affected by the loss of a life-long spouse.

If information was collected which indicated whether participants had been bereaved of a spouse/partner then it would be worth investigating any impact this loss had on a financial level. It is possible that participants have had to move into smaller accommodation because of their new financial situation, or alternatively a move into smaller, or warden controlled/retirement accommodation might have been as a result of physical and/or mental health problems, perhaps associated with old age. Again, this is information which could have added a great deal of richness to the data already

collected, such as impacting on a participant's GHQ12 score, or LOTR score. However, the gaining of this information must be considered against the increase in the length of time, and emotive nature, of the research interview.

Further additional data which might have been collected includes the length of time participants had been accessing the service. Having an indication as to whether that participant was relatively new to using mental health services, or had been accessing services for many years, might have added additional insight into the answers gathered from this sample. It is also something worth considering if future research did take place with those older adults who had disengaged with mental health services, for instance, whether disengagement came soon after first contact with services, or whether it came after a number of years.

During the study design the researcher was concerned with keeping the interview length compact and not causing the participant any undue distress by asking potentially emotive questions, for instance, by talking about the loss of a spouse, family member, etc. Therefore, the demographic information collected was kept to a minimum in order to concentrate on the questionnaire measures and the repertory grid which could be mentally taxing in themselves.

4.9 FURTHER RESEARCH

4.91 Participant recruitment

During this chapter areas for further research have been mentioned, as this project was always only intended as a starting point for future research to build upon. One factor which might increase the sample size for carrying out further research in the future would be to use a participant panel made up of older people with mental health problems who are interested in doing research and have already consented to be a research participant.

4.92 Geographical area

As was alluded to earlier, this study gathered participants spread over three separate geographical areas, which might have had an impact on recruitment numbers and levels of stigma and self-stigma. If this project was to be expanded then widening the recruitment to nationwide would ensure a more representative sample of the whole

older adult population of Great Britain, allowing for comparisons between different types of settings, cultures, living standards, etc.

4.93 Cognitive processes

Different types of cognitive mechanisms have been suggested as possible explanations for the finding of this study that the participants did identify with their peers, and did not necessarily equate old age with negative attributes. This project was hoping to identify self-stigma of age amongst a sample of older people but the next step might be to explore what cognitive processes older people have which lead to, or protect against, self-stigmatization or age and/or mental health problems. This might add to the literature base for concepts such as habituation, counterfactual thinking and repressive coping.

In relation to this is the work by Lam (2008), which offers a cognitive-behavioural treatment (CBT) approach to stigma. This approach uses the principles of CBT to help clients see that the way that they feel is related to the thoughts that they have, and the way that they behave, in relation to stigmatizing experiences. Another possible research area might be then to conduct a randomized controlled trial assessing the CBT intervention for stigma, as this could possibly suggest that treatment for self-stigma can prevent older people dropping out of mental health services.

4.94 Gender

Even though gender differences within this sample were minimal it is possible than in future research, with a larger sample, more differences might become apparent, especially if more demographic data is collected. Exploring the different patterns of construing in relation to stigma, age and mental health amongst males and females might be an interesting branch of research to pursue as it might give further insight into engagement behaviour with mental health services.

4.10 CONCLUSIONS

This study has found that older people with mental health problems are resilient to the stigma toward mental health problems, but have some slight tendency to internalize stigma towards their age. On the whole there was no conclusive finding as to the factors that affect self-stigma, but there were definite areas for further development to

take this research further and try to understand the concept of self-stigmatization of ageist attitudes more fully.

The methodology of this study appeared to work well as it provided quantitative data but also additional qualitative data which added richness to these findings. The use of the repertory grid for this particular area of research was a first and the findings of it have been useful in being able to explore the construct systems of these participants and correlating findings with the questionnaire measures used. Repertory grids have therefore been successful in examining the original aims of this study, even if the results did not support the hypotheses, and should be considered for future research with this client group.

Although no definitive clinical implications can be gleaned from this study, the findings have definitely opened up an area for development in order to ensure that older people's mental health services are being used to their capacity, rather than underutilized like at present. This pilot study has brought attention to an important area of literature which is currently lacking, and the further research that could materialize from this project, it is hoped, might go some way to addressing this paucity of research.

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Dear Sir/Madam,

My name is Hayley Griffiths and I am currently undertaking my Doctoral training in Clinical Psychology, at the University of Hertfordshire. I am undertaking this 'Major Research Project' as part of my training, and as such, I am looking for people over 65 to participate in my study.

With this letter, you will find a research information sheet. I would be grateful if you could read this as it explains the study. If, after reading the information sheet you would like to take part, please sign the two attached consent forms and return one to me along with the consent reply slip. You will keep one of the consent forms and I will keep the other for my records.

Once I have received your consent form and slip I will then make contact with you directly to arrange a convenient time to meet with you.

If you have any questions at any stage, please feel free to contact me:

Email: H.Griffiths@herts.ac.uk
Postal address: as above
Telephone number: 01707 286322

Thank you for your time.

Yours Sincerely,

Hayley Griffiths
Trainee Clinical Psychologist

PARTICIPANT INFORMATION SHEET

Research title: Self-stigmatizing ageism amongst older people using mental health services

Introduction

I am inviting people using mental health services for older people to take part in some research. Before you decide, please take the time to read the following information that I have written. This might help you understand why the research is being carried out and what it will involve.

The researchers

The study is being carried out by Hayley Griffiths, Trainee Clinical Psychologist, as part of a Doctoral qualification in Clinical Psychology, at the University of Hertfordshire. The study is supervised by Professor David Winter, Director of the Doctorate of Clinical Psychology Training Programme/Consultant Clinical Psychologist, and Mr Steve Davies, Consultant Clinical Psychologist, Department of Psychology and Psychotherapy, Derwent Centre, Princess Alexandra Hospital, Harlow.

What is the purpose of the study?

This research is looking at older peoples' ideas about negative attitudes towards their age. This study will also look at whether older people believe some of these attitudes themselves. This study is designed to help us, and others, to improve our understanding why some older people do not access mental health services, or drop out when they are using the service. This can help us to try to alter services to best meet the needs of all older people who are referred to mental health services.

What is involved?

If you decide to take part, you will be required to fill out three different questionnaires that each look at different types of attitudes. You will also be asked to develop a repertory grid (a table looking at attitudes and beliefs personal to you) with the

researcher which will look at your individual beliefs about yourself in relation to others. It is expected that this would take between approximately 60 – 90 minutes.

Also, you might be asked to take part in a further interview. This will be on a separate occasion, and will ask questions based on your answers in the previous questionnaires/grid. This is so that certain areas can be explored in detail to try to identify differences and similarities amongst older people. This interview will be audio-taped to help collect the information. This recording will only be used by the researcher. This interview will last approximately 60 minutes.

Who is taking part?

This study will include people aged over 65 who are currently using mental health services in North Essex Mental Health Partnership Trust.

Do I have to take part?

No. If you do not want to take part, or you change your mind *at any time* during the study, you can drop out. You do not need to give a reason why you do not want to take part. Taking part is voluntary and you can withdraw at any time.

What do I have to do?

If after reading this information sheet you want to take part in the research, you will be given this sheet to keep and you will need to sign three consent forms. You will keep one copy of the signed consent form and you will send the consent reply slip and the other consent form to the researcher, who will keep these copies. When your consent form has been received by the researcher they will contact you to arrange to meet with you, at a time and location that suits you best. In this meeting you will be given the questionnaires to complete and following that, you will develop your repertory grid (a table looking at attitudes and beliefs personal to you) with the researcher. As mentioned above the questionnaires will ask you about any negative attitudes towards older people you are aware of, and other beliefs you have. The interview should take a total of 2 hours.

The researcher will be contacting a few of the participants following this initial meeting to meet for an additional interview. Only a few of the total number of participants will be asked to do this. This additional interview is intended to add further, more detailed, information to the study.

Will taking part be confidential?

Yes. If you do decide to take part, your answers will be anonymous. This means that the questionnaire will not have your name or contact details on it. Instead each questionnaire is given a number before it is given out to participants. Completed questionnaires will be confidential and kept at a secure location, which will only be used by the researcher. To further ensure confidentiality, consent forms will be kept separately from the actual questionnaires. The overall findings of the project may be published in a research paper, but no individuals will be identifiable.

If you were to say something to the researcher which raised concerns regarding a risk to yourself or to others then the researcher has to pass this information on to the relevant people. This is the only time that confidentiality would be breached.

What are the benefits of taking part?

Taking part in this study may not benefit you personally. However, it is possible that you will learn more about your attitudes and beliefs about your age by taking part in this research. It is hoped that the information gathered in this study will be of benefit to older people in general in the future through a better understanding of the reasons why they do not always use services they might get help from.

What if I have questions or concerns?

If you have any further questions about the research, please feel free to contact the researcher, whose details are below. In the unlikely event that taking part in this research has caused you distress in some way, please contact the researcher who will be able to advise you on where you can get further help.

If you would like to speak with someone other than the researcher you can contact the Patient Advice and Liaison Service (PALS) for North Essex Mental Health Partnership NHS Trust. They can be contacted by telephone on **01245 546433, by email on pals@nemhpt.nhs.uk, or by mail at:**

Patient Advice and Liaison Service
Trust Headquarters
North Essex Mental Health Partnership NHS Trust
Stapleford House
103 Stapleford Close
Chelmsford
CM2 0QX

Who has reviewed this study?

This study has been reviewed by research tutors at the University of Hertfordshire and was given ethical approval by the Essex Research Ethics Committee and the Research and Development Committee of North Essex Mental Health Partnership Trust.

Thank you for taking time to read this.

Contact details of the researcher: Hayley Griffiths

Email address: H.Griffiths@herts.ac.uk
Telephone number: 01707 286322
Postal address: Doctorate in Clinical Psychology Training Programme
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Hatfield, Herts., AL10 9AB

CONSENT FORM

Title of Project: Self-stigmatizing ageism amongst older people using mental health services

Researcher: Hayley Griffiths, Trainee Clinical Psychologist

Please initial box

1) I confirm that I have read and understand the information sheet for the above study. I have had the opportunity to consider the information and if needed ask questions that were satisfactorily answered. ☐

2) I understand that participation is voluntary and that I am free to withdraw at any time, without giving any reason, without healthcare or legal rights being affected. ☐

3) I give consent for the researcher to access my medical records to ensure my suitability for this piece of research ☐

4) I give consent for my participation in this study to be audio taped if requested by the researcher ☐

5) I agree to take part in the above study ☐

…….	……..	……
Name participant	*Date*	*Signature*

…….	……..	……
Name of researcher	*Date*	*Signature*

NHS

National Research Ethics Service

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30 August 2007

Miss Hayley Griffiths
Trainee Clinical Psychologist
University Of Hertfordshire
Dclinpsy Programme
College Lane Campus
Hatfield, Hertfordshire
AL10 9AB

Dear Miss Griffiths

Full title of study: **Self-stigmatization and ageism amongst older people accessing mental health services.**
REC reference number: **07/H0302/73**

Thank you for your letter of 17 August 2007, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chairman.

Confirmation of ethical opinion
On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised.

Ethical review of research sites
The Committee has designated this study as exempt from site-specific assessment (SSA. There is no requirement for [other] Local Research Ethics Committees to be informed or for site-specific assessment to be carried out at each site.

Conditions of approval
The favourable opinion is given provided that you comply with the conditions set out in the attached document. You are advised to study the conditions carefully.

Approved documents
The final list of documents reviewed and approved by the Committee is as follows:

Document	*Version*	*Date*
Application	Version 5.3	14 June 2007
Investigator CV		07 June 2007
Protocol	Version 1.0	07 June 2007
Questionnaire: General Health Questionnaire		
Questionnaire: Lot R		
Questionnaire: The Stigma Scale		

This Research Ethics Committee is an advisory committee to East of England Strategic Health Authority

The National Research Ethics Service (NRES) represents the NRES Directorate within the National Patient Safety Agency and Research Ethics Committees in England

Letter of invitation to participant	Version 1.0	07 June 2007
Participant Information Sheet	2.0	07 August 2007
Participant Consent Form	2.0	06 August 2007
Response to Request for Further Information		17 August 2007
Blank repertory grid	1.0	06 July 2007
Consent reply slip	1.0	06 August 2007
Using the repertory grid	1.0	17 August 2007
Liability Certificate		01 August 2006
CV David Winter Supervisor		07 June 2007

R&D approval
All researchers and research collaborators who will be participating in the research at NHS sites should apply for R&D approval from the relevant care organisation, if they have not yet done so. R&D approval is required, whether or not the study is exempt from SSA. You should advise researchers and local collaborators accordingly.

Guidance on applying for R&D approval is available from http://www.rdforum.nhs.uk/rdform.htm.

Statement of compliance
The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

Feedback on the application process
Now that you have completed the application process you are invited to give your view of the service you received from the National Research Ethics Service. If you wish to make your views known please use the feedback form available on the NRES website at:

https://www.nresform.org.uk/AppForm/Modules/Feedback/EthicalReview.aspx

We value your views and comments and will use them to inform the operational process and further improve our service.

07/H0302/73	**Please quote this number on all correspondence**

With the Committee's best wishes for the success of this project

Yours sincerely

Mr J Gould
Chairman

Email: suzanne.emerton@eoe.nhs.uk

Enclosures: Standard approval conditions

Copy to: Dr Nick Wood
Doctorate in Clinical Psychology Training Course
University of Hertfordshire
College Lane Campus
Hatfield Herts AL10 9AB

Research & Development Consortium NHS

Please reply to:
R&D Consortium Support Office
Swansea NHS Trust
Morriston Hospital
SWANSEA
SA6 6NL

Telephone: 01792 704056
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E-mail: jemma.hughes@swansea-tr.wales.nhs.uk

Miss Hayley Griffiths,
Trainee Clinical Psychologist
University of Hertfordshire
Dclinpsy Programme
College Lane Campus, Hatfield
Hertfordshire
AL10 9AB

22 February 2008

Dear Miss Griffiths,

ID: B07Psyc261 **Self-stigmatization and ageism amongst older people accessing mental health services**

I am pleased to inform you that the above research study, which you recently submitted for review, has been approved by Bro Morgannwg NHS Trust.

Sponsorship
University of Hertfordshire is Sponsor for this study, as required under the Research Governance Framework.

As a requirement of the Research Governance Framework, all research studies registered as active within the Trust will be subject to a randomised audit procedure to ensure appropriate standards of Research Governance (RG) and Good Clinical Practice (GCP) are being applied throughout the conduct of the research. Research Active Personnel must therefore ensure they familiarise themselves with the standards of RG and GCP. For clinical trials of investigational medicinals products, please ensure all members of the research team are up to date or have attended recent training in GCP. Details of GCP training is available from the Trust R&D Office.

Researchers employed by the Trust, including those holding Honorary Contract status are indemnified against actions for negligent harm via standard arrangements with Welsh Risk Pool (WRP). Provision for 'no-fault' compensation is limited under the scheme and is only available on an ex gratia, discretionary basis.

The Trust reserves the right to suspend approval of any research study where deviation from appropriate RG & GCP standards is uncovered.

May I take this opportunity to wish you well in undertaking the research. We will write to you in the future to request updates on the progress of the research and look forward to receiving outcomes of the study.

Yours sincerely

Dr Joan Williams
Deputy Medical Director, Bro Morgannwg NHS Trust

Essex County Council

North Essex NHS
Mental Health Partnership
NHS Trust

NEMHPT Research & Development
Princess Alexandra Hospital
Derwent Centre
Harlow
CM21 9DX

Telephone: 01279 827290
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Ayse.Casey@nemhpt.nhs.uk

17 September 2007

Miss Hayley Griffiths
DClinPsych Programme
University of Hertfordshire
College Lane Campus
Hatfield
Hertfordshire
AL10 9AB

Dear Miss Griffiths

Re: Self Stigmatising and ageism amongst older people accessing mental health services
Our Ref: BA 07 15 please quote in all correspondence
REC Ref: 07/H0302/73

Thank you for submitting the above project to the Research and Development Committee, the committee met and considered your application on the 13th September 2007. After careful consideration I am pleased to confirm your application has been approved.

The Trust has to meet rigorous standards set in the Research Governance Framework for Health and Social Care. Consequently, your research must follow a number of strict conditions, these include;

- A favourable opinion has been obtained from the Local Research Ethics Committee;
- You must inform me when your study begins;
- All investigators, not employed by North Essex Mental Health Partnership Trust, who have contact with NEMHPT patients or their notes must have up to date honorary contracts;
- The research must be carried out in strict accordance with the protocol submitted and any changes to that protocol must be approved by the R&D Committee and receive a favourable ethics opinion from a Research Ethics Committee before the research is undertaken or continues;
- A financial or any other agreement relating to your research that is binding upon the Trust must be notified to me and thereafter approved and signed by the Chief Executive of the Trust;
- You must report any adverse events relating to this research to me as soon as practicable. I can be contacted by telephone on 01279 827290. In my absence, incidents should be reported to the Medical Director, Dr Malte Flechtner who can be contacted by telephone via his PA on 01245 546418. In addition, you must complete one of the Trust's incident forms and follow the requirements as set out in the Trust's adverse incident reporting policy. A copy of the incident form must be submitted to me as soon as possible;

- If your research will take place over a period of more than 12 months you are required to send to me a short progress report on your research dealing with recruitment, any incidents and interim findings as appropriate. You will be notified when the report is due, failure to respond to this request will result in Trust approval being withdrawn;
- Any research terminated prematurely must be notified to me immediately;
- The results of your completed study must be sent to me within 3 months of completion of the study so that the Research and Development Committee can consider it. In addition, please supply a summary on a single page of A4 paper of the conclusions of the study that would be suitable for dissemination.

A full list of your responsibilities as set out in the Research Governance Framework for Health & Social Care is attached to this letter. Please ensure that you and all members of your team read and understand the responsibilities and obligations attached to conducting your research.

As a result of the Research Governance Framework for Health and Social Care, the Trust now has an obligation to monitor all research being undertaken within the Trust. Consequently the Trust, through the R&D Committee, will undertake random checks on research. If you are selected to have your research monitored, you will be notified to ensure your availability. I must emphasise that the monitoring of research is simply a part of the general improvement of research governance standards within the NHS. The R&D Committee intend for these improvements to assist and support researchers and they are in no way intended to deter people from undertaking research. If you require any more information on the Research Governance Framework please do not hesitate to contact me.

The R&D Committee, on behalf of the Trust, will revoke or suspend its approval to any research that does not comply with these conditions, is in breach of LREC approval or where there is any misconduct or fraud.

I wish you every success with your research and look forward to receiving a copy of the completed study in due course.

Yours sincerely

Ayse

Ayse Casey
Research and Development Manager

Hertfordshire Partnership NHS
NHS Foundation Trust

Miss Hayley Griffiths
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11th March 2008

Dear Hayley

Self-stigmatization and ageism amongst older people accessing mental health services

Thank-you for sending me the documentation for the above study. I have also received written confirmation from Sid Singer confirming that he will provide clinical supervision on behalf of HPFT.

Your project is now registered with, and approved by, the HPFT R&D Office. Since it has been designated as SSA exempt there is no need for any additional paperwork to be sent to the Hertfordshire Research Ethics Committee.

I would remind you that, in accordance with the Research Governance Framework, any research project that involves the staff or service users of HPFT is liable to be audited by the Trust. Research audits are carried out on a random sample of all current projects by our Practice Audit and Clinical Effectiveness Department. For this reason, it is imperative that you keep copies of all documentation, consent forms and data capture sheets relating to your project.

I hope your study is successful and wish you luck with it.

With best wishes

Tim M Gale Ph.D.
R&D Manager HPT

GENERAL HEALTH QUESTIONNAIRE

GHQ-12

Please read this carefully:

We should like to know if you have had any medical complaints, and how your health has been in general, *over the past few weeks*. Please answer ALL the questions simply by underlining the answer which you think most nearly applies to you. Remember that we want to know about present and recent complaints, not those you had in the past. It is important that you try to answer ALL the questions.

Thank you very much for your co-operation.

HAVE YOU RECENTLY:

1 — been able to concentrate on whatever you're doing?	Better than usual	Same as usual	Less than usual	Much less than usual
2 — lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
3 — felt that you are playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much less useful
4 — felt capable of making decisions about things?	More so than usual	Same as usual	Less so than usual	Much less capable
5 — felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
6 — felt you couldn't overcome your difficulties?	Not at all	No more than usual	Rather more than usual	Much more than usual
7 — been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much less than usual
8 — been able to face up to your problems?	More so than usual	Same as usual	Less able than usual	Much less able
9 — been feeling unhappy and depressed?	Not at all	No more than usual	Rather more than usual	Much more than usual
10 — been losing confidence in yourself?	Not at all	No more than usual	Rather more than usual	Much more than usual
11 — been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
12 — been feeling reasonably happy, all things considered?	More so than usual	About same as usual	Less so than usual	Much less than usual

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LOT-R

Please be as honest and accurate as you can throughout. Try not to let your response to one statement influence your responses to other statements. There are no "correct" or "incorrect" answers. Answer according to your own feelings, rather than how you think "most people" would answer.

A = I agree a lot
B = I agree a little
C = I neither agree nor disagree
D = I DISagree a little
E = I DISagree a lot

1. In uncertain times, I usually expect the best.

[2. It's easy for me to relax.]

3. If something can go wrong for me, it will.

4. I'm always optimistic about my future.

[5. I enjoy my friends a lot.]

[6. It's important for me to keep busy.]

7. I hardly ever expect things to go my way.

[8. I don't get upset too easily.]

9. I rarely count on good things happening to me.

10. Overall, I expect more good things to happen to me than bad.

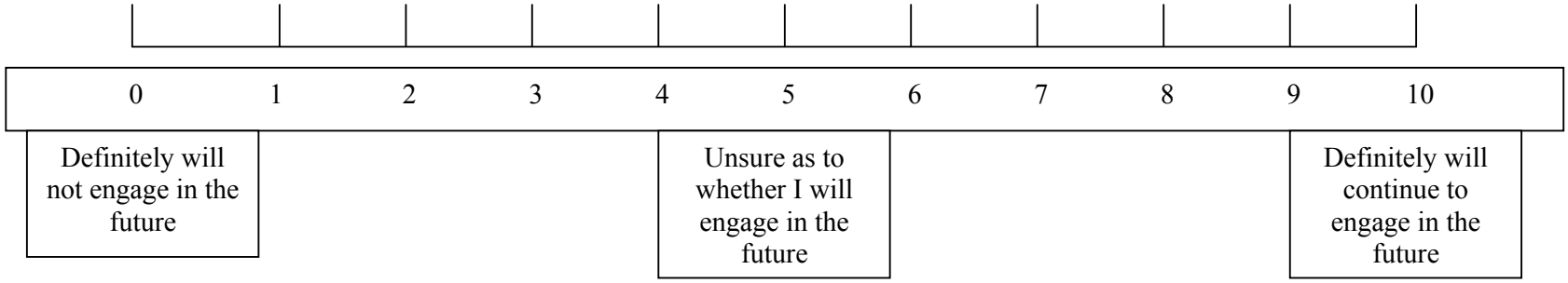
Statement	Response				
1. I've been discriminated against in education because of my mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
2. Sometimes I feel that I'm being talked down to because of my mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
3. Having had mental health problems has made me a more understanding person	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
4. I don't feel bad about having had mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
5. I worry about telling people I receive psychological treatment	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
6. Some people with mental health problems are dangerous	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
7. People have been understanding of my mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
8. I've been discriminated against by police because of my mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
9. I have been discriminated against by employers because of my mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
10. My mental health problems have made me more accepting of other people	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
11. Very often I feel alone because of my mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
12. I'm scared of how other people will react if they find out about my mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
13. I would have had better chances in life if I hadn't had mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
14. I don't mind people in my neighbourhood knowing I have had mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
15. I would say I have had mental health problems if I was applying for a job	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
16. I worry about telling people that I take medicines/tablets for mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
17. People's reactions to my mental health problems make me keep myself to myself	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
18. I am angry with the way people have reacted to my mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
19. I haven't had any trouble from people because of my mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
20. I've been discriminated against by health professionals because of my mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
21. People have avoided me because of my mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
22. People have insulted me because of my mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
23. Having had mental health problems has made me a stronger person	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
24. I do not feel embarrassed because of my mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
25. I avoid telling people about my mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
26. Having had mental health problems makes me feel that life is unfair	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
27. I feel the need to hide my mental health problems from my friends	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
28. I find it hard telling people I have mental health problems	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

	Self now	**Ideal self (any age)**	**Self as a middle aged adult**	**Self as a young adult**	**How you see older people**	**How other people see you now**	**How other people saw you as a middle aged adult**	**How other people saw you as a young adult**	**How other people see a typical older person**	**How other people see a typical middle aged adult**	**How other people see a typical young adult**	*Implicit Pole*
Old												**Young**
Respected												

Appendix 11

LIKELIHOOD TO CONTINUE TO USE MENTAL HEALTH SERVICES SCALE

Appendix 12



29/04/2008 (12:27:53)

Slater Analyses for AE

Original Grid (AE)

```
                  Self now
                  .       Ideal self
                  .       .       Self as middle aged
                  .       .       .       Self as young adult
                  .       .       .       .       How you see older
people
                  .       .       .       .       .       How others
see you now
                  .       .       .       .       .       .
How others saw you as middle aged
                  .       .       .       .       .       .       .
How others saw you as young adult
                  .       .       .       .       .       .       .
.       How others see typical older person
                  .       .       .       .       .       .       .
.       .       How others see typical middle aged adult
                  .       .       .       .       .       .       .
.       .       .       How others see typical young adult
          Old     4.00    1.00    5.00    1.00    6.00    5.00
2.00    1.00    7.00    5.00    1.00   Young
     Respected    7.00    7.00    7.00    7.00    7.00    7.00
7.00    7.00    6.00    7.00    5.00   Abused
        Active    6.00    7.00    7.00    7.00    5.00    7.00
7.00    7.00    4.00    6.00    7.00   Non active
   Less Mobile    4.00    1.00    1.00    1.00    4.00    7.00
2.00    1.00    7.00    3.00    1.00   Mobile
Less energetic    4.00    1.00    1.00    1.00    6.00    3.00
1.00    1.00    7.00    1.00    1.00   Energetic
       Helpful    7.00    7.00    7.00    7.00    7.00    7.00
7.00    7.00    5.00    6.00    6.00   Unhelpful
        Caring    7.00    7.00    7.00    7.00    7.00    7.00
7.00    7.00    5.00    7.00    6.00   Uncaring
   Independent    4.00    7.00    7.00    7.00    2.00    3.00
7.00    7.00    2.00    3.00    4.00   Dependent
      Trusting    7.00    7.00    7.00    7.00    7.00    7.00
7.00    7.00    7.00    7.00    7.00   Distrustful
    Attractive    5.00    7.00    7.00    7.00    6.00    7.00
7.00    7.00    4.00    5.00    7.00   Ugly
     Forgetful    4.00    1.00    1.00    1.00    2.00    2.00
1.00    1.00    7.00    1.00    1.00   Knowing
          Kind    7.00    7.00    7.00    7.00    7.00    7.00
7.00    7.00    7.00    7.00    6.00   Nasty
```

Descriptive Statistics for Elements [AE]

Means

	Sum of Squares		
			Percent Total Sum of Squares
Self now	0.31	10.59	3.80
Ideal self	-0.19	18.77	6.74
Self as middle aged	0.14	15.13	5.43
Self as young adult	-0.19	18.77	6.74
How you see older people	0.31	30.40	10.92
How others see you now	0.56	23.95	8.60
How others saw you as middle aged	-0.02	12.04	4.32
How others saw you as young adult	-0.19	18.77	6.74
How others see typical older person	0.48	99.86	35.85
How others see typical middle aged adult	-0.36	11.13	4.00
How others see typical young adult	-0.86	19.13	6.87

Note. Values are based upon deviation matrix in which construct means were removed
from the original grid scores.
Total SS: 278.55

Element Euclidean Distances

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	7.07	0.00									
Self as middle aged	6.48	4.00	0.00								
Self as young adult	7.07	0.00	4.00	0.00							
How you see older people	4.24	9.49	8.12	9.49	0.00						
How others see you now	4.58	8.54	7.55	8.54	5.00	0.00					
How others saw you as middle aged	6.32	1.41	3.16	1.41	8.72	7.42	0.00				
How others saw you as young adult	7.07	0.00	4.00	0.00	9.49	8.54	1.41	0.00			

```
     How others see typical older person     7.35    14.00    12.81
14.00     7.07     8.54    13.19    14.00     0.00
How others see typical middle aged adult     4.69     6.48     5.10
6.48     5.66     5.20     5.66     6.48    10.20     0.00
      How others see typical young adult     6.93     4.00     5.66
4.00     8.72     8.06     4.24     4.00    13.04     5.66     0.00
```

Element Euclidean Distances (standardized)

```
                                                 Self now
                                                 |        Ideal self
                                                 |        |        Self
as middle aged
                                                 |        |        |
Self as young adult
                                                 |        |        |
|        How you see older people
                                                 |        |        |
|        |        How others see you now
                                                 |        |        |
|        |        |        How others saw you as middle aged
                                                 |        |        |
|        |        |        |        How others saw you as young adult
                                                 |        |        |
|        |        |        |        |        How others see typical
older person
                                                  |        |        |
|        |        |        |        |        |        How others see
typical middle aged adult
                                                  |        |        |
|        |        |        |        |        |        |        How
others see typical young adult
                                                  |        |        |
|        |        |        |        |        |        |        |
                                  Self now     0.00
                                Ideal self     0.95     0.00
                     Self as middle aged     0.87     0.54     0.00
                     Self as young adult     0.95     0.00     0.54
0.00
                How you see older people     0.57     1.27     1.09
1.27     0.00
                  How others see you now     0.61     1.14     1.01
1.14     0.67     0.00
       How others saw you as middle aged     0.85     0.19     0.42
0.19     1.17     0.99     0.00
       How others saw you as young adult     0.95     0.00     0.54
0.00     1.27     1.14     0.19     0.00
     How others see typical older person     0.98     1.88     1.72
1.88     0.95     1.14     1.77     1.88     0.00
How others see typical middle aged adult     0.63     0.87     0.68
0.87     0.76     0.70     0.76     0.87     1.37     0.00
      How others see typical young adult     0.93     0.54     0.76
0.54     1.17     1.08     0.57     0.54     1.75     0.76     0.00
```

Note. Values are standardized around the expected distance between random pairings of elements. For this grid: 7.46.

Descriptive Statistics for Constructs [(AE)]

	Means	Sum of Squares	Percent Total Sum of Squares
Old	3.45	52.73	18.93
Respected	6.73	4.18	1.50
Active	6.36	10.55	3.79
Less Mobile	2.91	54.91	19.71
Less energetic	2.45	50.73	18.21
Helpful	6.64	4.55	1.63
Caring	6.73	4.18	1.50
Independent	4.82	47.64	17.10
Trusting	7.00	0.00	0.00
Attractive	6.27	12.18	4.37
Forgetful	2.00	36.00	12.92
Kind	6.91	0.91	0.33

Total SS: 278.55
Bias: 0.74
Variability: 0.51

Construct Correlations

	Old	Respected	Active	Less Mobile	Less energetic	Helpful	Caring	Independent	Trusting	Attractive	Forgetful	Kind
Old	1.00											
Respected	0.09	1.00										
Active	-0.76	0.16	1.00									
Less Mobile	0.77	-0.02	-0.65	1.00								
Less energetic	0.75	-0.11	-0.90	0.79	1.00							
Helpful	-0.40	0.67	0.64	-0.40	-0.41	1.00						
Caring	-0.31	0.76	0.62	-0.41	-0.52	0.90	1.00					
Independent	-0.74	0.32	0.75	-0.79	-0.75	0.56	0.46	1.00				
Trusting	.	.	.	.	.	.	.	.	.			
Attractive	-0.69	0.11	0.87	-0.61	-0.70	0.68						

| | | |

	Eigenvalue	% Variance	Cumulative %	Scree
PC_ 1	211.09	75.78	75.78	|**********
PC_ 2	22.72	8.16	83.94	|***
PC_ 3	16.34	5.87	89.81	|**
PC_ 4	13.55	4.86	94.67	|**
PC_ 5	9.22	3.31	97.98	|**
PC_ 6	4.37	1.57	99.55	|*
PC_ 7	1.20	0.43	99.98	|*
PC_ 8	0.05	0.02	100.00	|*
PC_ 9	0.00	0.00	100.00	|*
PC_10	0.00	0.00	100.00	|*

Element Loadings

	PC_1	PC_2	PC_3
Self now	-2.75	1.02	-0.48
Ideal self	4.20	0.87	-0.29
Self as middle aged	2.45	-1.05	-1.94
Self as young adult	4.20	0.87	-0.29
How you see older people	-4.67	-1.25	0.17
How others see you now	-3.26	-2.43	-0.10
How others saw you as middle aged	3.30	0.18	-0.80
How others saw you as young adult	4.20	0.87	-0.29
How others see typical older person	-9.64	2.43	-0.22
How others see typical middle aged adult	-0.81	-2.13	1.04
How others see typical young adult	2.77	0.63	3.21

Note. Values for plotting elements in the component space.

Element Eigenvectors

	PC_1	PC_2	PC_3
Self now	-0.19	0.21	-0.12
Ideal self	0.29	0.18	-0.07
Self as middle aged	0.17	-0.22	-0.48
Self as young adult	0.29	0.18	-0.07
How you see older people	-0.32	-0.26	0.04
How others see you now	-0.22	-0.51	-0.03
How others saw you as middle aged	0.23	0.04	-0.20
How others saw you as young adult	0.29	0.18	-0.07
How others see typical older person	-0.66	0.51	-0.05
How others see typical middle aged adult	-0.06	-0.45	0.26
How others see typical young adult	0.19	0.13	0.79

Construct Loadings

	PC_1	PC_2	PC_3
Old	-6.37	-2.28	-1.67

Respected	0.28	-0.78	-1.53
Active	2.88	-0.77	-0.06
Less Mobile	-6.74	-1.00	-0.40
Less energetic	-6.60	1.36	-0.53
Helpful	1.19	-0.71	-0.94
Caring	1.14	-1.15	-0.68
Independent	6.04	1.55	-2.88
Trusting	0.00	0.00	0.00
Attractive	2.80	-0.80	-0.15
Forgetful	-5.09	2.92	-0.66
Kind	-0.19	-0.13	-0.79

Construct Eigenvectors

	PC_1	PC_2	PC_3
Old	-0.44	-0.48	-0.41
Respected	0.02	-0.16	-0.38
Active	0.20	-0.16	-0.01
Less Mobile	-0.46	-0.21	-0.10
Less energetic	-0.45	0.29	-0.13
Helpful	0.08	-0.15	-0.23
Caring	0.08	-0.24	-0.17
Independent	0.42	0.33	-0.71
Trusting	0.00	0.00	0.00
Attractive	0.19	-0.17	-0.04
Forgetful	-0.35	0.61	-0.16
Kind	-0.01	-0.03	-0.20

Note. Values for orienting (drawing) constructs in component space.

{Graph Created: AE / PC_1 vs. PC_2 (Slater)}
{Graph Created: AE / PC_1 vs. PC_3 (Slater)}
{Graph Created: AE / PC_2 vs. PC_3 (Slater)}

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Slater Analyses for BG

Original Grid (BG)

```
                              Self now
                              .       Ideal self
                              .       .       Self as middle aged
                              .       .       .       Self as young
adult
                              .       .       .       .       How you
see older people
                              .       .       .       .       .
How others see you now
                              .       .       .       .       .       .
How others saw you as middle aged
                              .       .       .       .       .       .
.       How others saw you as young adult
                              .       .       .       .       .       .
.       .       How others see typical older person
                              .       .       .       .       .       .
.       .       .       How others see typical middle aged adult
                              .       .       .       .       .       .
.       .       .       .       How others see typical young adult
                    Old    3.00    3.00    2.00    1.00    3.00
2.00    2.00    6.00    6.00    2.00    1.00   Young
                Respected    7.00    7.00    7.00    7.00    4.00
7.00    7.00    4.00    4.00    4.00    2.00   Disrespected
            Enjoying life    1.00    5.00    4.00    6.00    4.00
4.00    5.00    4.00    4.00    4.00    4.00   Being miserable
                Motivated    5.00    6.00    6.00    6.00    4.00
6.00    6.00    5.00    5.00    4.00    4.00   Placid
                Healthy    7.00    7.00    7.00    7.00    4.00
7.00    7.00    4.00    4.00    7.00    7.00   Unhealthy
                 Active    6.00    7.00    7.00    7.00    4.00
7.00    7.00    4.00    4.00    7.00    7.00   Unactive
Disciplined (standards)    7.00    7.00    7.00    7.00    7.00
7.00    7.00    7.00    7.00    4.00    3.00   Undisciplined
             Not coping    3.00    1.00    2.00    2.00    1.00
1.00    1.00    4.00    4.00    3.00    4.00   Coping
              Depressed    7.00    4.00    4.00    4.00    4.00
1.00    1.00    4.00    4.00    4.00    2.00   Not depressed
               Sociable    7.00    7.00    7.00    7.00    5.00
7.00    7.00    6.00    6.00    7.00    7.00   Unsociable
                 Mature    7.00    7.00    7.00    7.00    7.00
7.00    3.00    7.00    7.00    4.00    4.00   Immature
                 Grumpy    2.00    1.00    3.00    2.00    3.00
1.00    1.00    5.00    5.00    2.00    4.00   Pleasant
```

Descriptive Statistics for Elements [BG]

	Means	Sum of Squares	Percent Total Sum of Squares
Self now	0.38	26.79	11.01
Ideal self	0.38	11.52	4.74
Self as middle aged	0.46	7.07	2.90
Self as young adult	0.46	13.61	5.60
How you see older people	-0.62	18.79	7.73
How others see you now	-0.04	17.61	7.24
How others saw you as middle aged	-0.29	27.16	11.16
How others saw you as young adult	0.21	31.52	12.96
How others see typical older person	0.21	31.52	12.96
How others see typical middle aged adult	-0.45	16.79	6.90
How others see typical young adult	-0.70	40.88	16.81

Note. Values are based upon deviation matrix in which construct means were removed from the original grid scores.

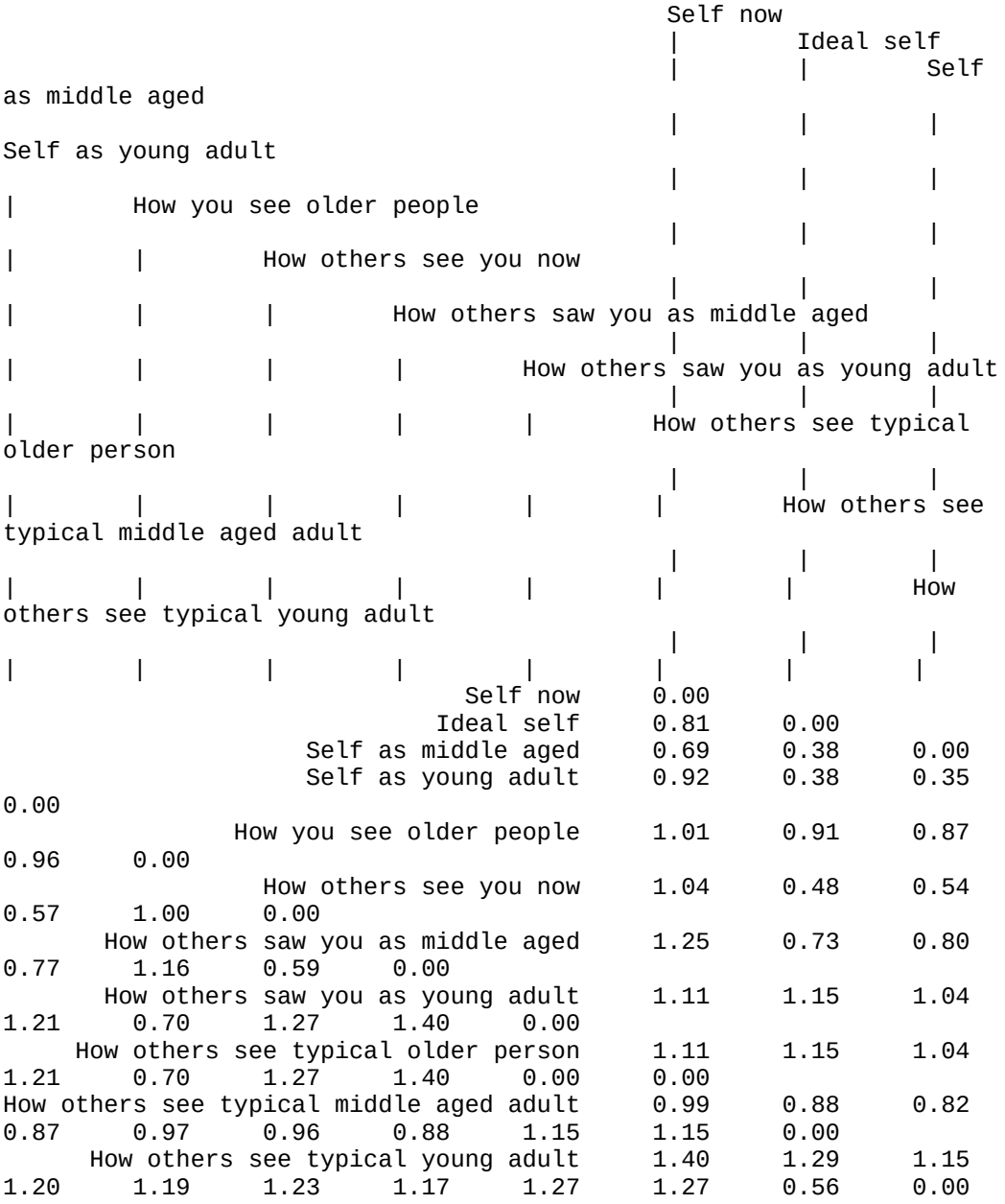
Total SS: 243.27

Element Euclidean Distances

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	5.66	0.00									
Self as middle aged	4.80	2.65	0.00								
Self as young adult	6.40	2.65	2.45	0.00							
How you see older people	7.07	6.32	6.08	6.71	0.00						
How others see you now	7.28	3.32	3.74	4.00	7.00	0.00					
How others saw you as middle aged	8.72	5.10	5.57	5.39	8.12	4.12	0.00				
How others saw you as young adult	7.75	8.00	7.28								

8.43 4.90 8.89 9.80 0.00
How others see typical older person 7.75 8.00 7.28
8.43 4.90 8.89 9.80 0.00 0.00
How others see typical middle aged adult 6.93 6.16 5.74
6.08 6.78 6.71 6.16 8.00 8.00 0.00
How others see typical young adult 9.75 9.00 8.00
8.37 8.31 8.60 8.19 8.89 8.89 3.87 0.00

Element Euclidean Distances (standardized)



Self now 0.00
Ideal self 0.81 0.00
Self as middle aged 0.69 0.38 0.00
Self as young adult 0.92 0.38 0.35 0.00
How you see older people 1.01 0.91 0.87 0.96 0.00
How others see you now 1.04 0.48 0.54 0.57 1.00 0.00
How others saw you as middle aged 1.25 0.73 0.80 0.77 1.16 0.59 0.00
How others saw you as young adult 1.11 1.15 1.04 1.21 0.70 1.27 1.40 0.00
How others see typical older person 1.11 1.15 1.04 1.21 0.70 1.27 1.40 0.00 0.00
How others see typical middle aged adult 0.99 0.88 0.82 0.87 0.97 0.96 0.88 1.15 1.15 0.00
How others see typical young adult 1.40 1.29 1.15 1.20 1.19 1.23 1.17 1.27 1.27 0.56 0.00

Note. Values are standardized around the expected distance between random pairings of elements. For this grid: 6.98.

Descriptive Statistics for Constructs [(BG)]

	Means	Sum of Squares	Percent Total Sum of Squares
Old	2.82	29.64	12.18
Respected	5.45	34.73	14.28
Enjoying life	4.09	14.91	6.13
Motivated	5.18	7.64	3.14
Healthy	6.18	19.64	8.07
Active	6.09	18.91	7.77
Disciplined (standards)	6.36	20.55	8.45
Not coping	2.36	16.55	6.80
Depressed	3.55	28.73	11.81
Sociable	6.64	4.55	1.87
Mature	6.09	24.91	10.24
Grumpy	2.64	22.55	9.27

Total SS: 243.27
Bias: 0.57
Variability: 0.47

Construct Correlations

	Old	Respected	Enjoying life	Motivated	Healthy	Active	Disciplined (standards)	Not coping	Depressed	Sociable	Mature	Grumpy
Old	1.00											
Respected	-0.25	1.00										
Enjoying life	-0.23	0.07	1.00									
Motivated	-0.11	0.87	0.36	1.00								
Healthy	-0.81	0.50	0.05	0.38	1.00							
Active	-0.84	0.45	0.23	0.40	0.98	1.00						
Disciplined (standards)	0.39	0.68	0.04	0.66	-0.29	-0.32	1.00					
Not coping	0.44	-0.66	-0.34	-0.51	-0.32	-0.36	-0.46	1.00				

Depressed	0.31	0.07	-0.56	-0.21	-0.17	-0.32	0.20	0.31	1.00	
Sociable	-0.58	0.46	0.04	0.46	0.92	0.90	-0.26	-0.06	-0.16	1.00
Mature	0.41	0.29	-0.16	0.28	-0.37	-0.42	0.65	-0.07	0.50	-0.34	1.00
Grumpy	0.63	-0.72	-0.14	-0.48	-0.73	-0.71	-0.16	0.80	0.20	-0.54	0.18	1.00

Direction cosines between Constructs and Elements

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Old	0.11	-0.27	-0.38	-0.59	0.43	-0.47	-0.49	0.92	0.92	-0.45	-0.35
Respected	0.37	0.86	0.81	0.68	-0.42	0.66	0.42	-0.52	-0.52	-0.50	-0.74
Enjoying life	-0.80	0.30	0.02	0.54	-0.08	0.28	0.44	-0.17	-0.17	-0.08	0.04
Motivated	0.01	0.75	0.75	0.67	-0.50	0.68	0.46	-0.33	-0.33	-0.61	-0.63
Healthy	0.16	0.49	0.56	0.56	-0.82	0.52	0.52	-0.91	-0.91	0.41	0.17
Active	-0.04	0.49	0.52	0.60	-0.81	0.56	0.59	-0.91	-0.91	0.41	0.23
Disciplined (standards)	0.26	0.52	0.44	0.29	0.23	0.31	0.03	0.19	0.19	-0.92	-0.96
Not coping	0.12	-0.74	-0.38	-0.54	-0.06	-0.76	-0.59	0.62	0.62	0.31	0.49
Depressed	0.83	0.04	0.19	-0.03	0.19	-0.59	-0.70	0.28	0.28	-0.09	-0.35
Sociable	0.16	0.41	0.53	0.47	-0.97	0.42	0.45	-0.69	-0.69	0.35	0.17
Mature	0.39	0.31	0.41	0.20	0.36	0.04	-0.64	0.37	0.37	-0.77	-0.66
Grumpy	-0.13	-0.78	-0.42	-0.56	0.40	-0.73	-0.67	0.87	0.87	-0.08	0.30

Note. Values reflect construct/element cosines (correlations) in the full

component space.

Eigenvalue Decomposition

	Eigenvalue	% Variance	Cumulative %	Scree
PC_ 1	105.59	43.40	43.40	|**********
PC_ 2	69.33	28.50	71.90	|*******
PC_ 3	33.24	13.66	85.56	|****
PC_ 4	12.42	5.10	90.67	|**
PC_ 5	11.75	4.83	95.49	|**
PC_ 6	6.69	2.75	98.25	|**
PC_ 7	3.47	1.43	99.67	|*
PC_ 8	0.69	0.28	99.96	|*
PC_ 9	0.11	0.04	100.00	|*
PC_10	0.00	0.00	100.00	|

Element Loadings

	PC_1	PC_2	PC_3
Self now	-0.32	-2.57	-4.27
Ideal self	2.25	-2.11	0.12
Self as middle aged	1.48	-1.49	-0.71
Self as young adult	2.56	-1.28	0.01
How you see older people	-2.74	-0.67	1.18
How others see you now	3.19	-1.10	1.58
How others saw you as middle aged	3.95	0.83	2.35
How others saw you as young adult	-5.38	-0.67	1.01
How others see typical older person	-5.38	-0.67	1.01
How others see typical middle aged adult	0.70	3.48	-1.58
How others see typical young adult	-0.29	6.25	-0.69

Note. Values for plotting elements in the component space.

Element Eigenvectors

	PC_1	PC_2	PC_3
Self now	-0.03	-0.31	-0.74
Ideal self	0.22	-0.25	0.02
Self as middle aged	0.14	-0.18	-0.12
Self as young adult	0.25	-0.15	0.00
How you see older people	-0.27	-0.08	0.21
How others see you now	0.31	-0.13	0.27
How others saw you as middle aged	0.38	0.10	0.41
How others saw you as young adult	-0.52	-0.08	0.17
How others see typical older person	-0.52	-0.08	0.17
How others see typical middle aged adult	0.07	0.42	-0.27
How others see typical young adult	-0.03	0.75	-0.12

Construct Loadings

	PC_1

	PC_2		PC_3
Old	-4.49	-1.88	1.00
Respected	3.88	-4.28	-0.24
Enjoying life	1.19	0.46	2.66
Motivated	1.53	-1.71	0.77
Healthy	3.94	0.72	-1.66
Active	3.97	1.03	-0.92
Disciplined (standards)	-0.09	-4.26	1.31
Not coping	-2.76	1.66	-1.47
Depressed	-2.12	-2.33	-4.03
Sociable	1.58	0.32	-0.76
Mature	-1.66	-3.90	-0.45
Grumpy	-4.23	1.05	0.18

Construct Eigenvectors

	PC_1	PC_2	PC_3
Old	-0.44	-0.23	0.17
Respected	0.38	-0.51	-0.04
Enjoying life	0.12	0.06	0.46
Motivated	0.15	-0.20	0.13
Healthy	0.38	0.09	-0.29
Active	0.39	0.12	-0.16
Disciplined (standards)	-0.01	-0.51	0.23
Not coping	-0.27	0.20	-0.25
Depressed	-0.21	-0.28	-0.70
Sociable	0.15	0.04	-0.13
Mature	-0.16	-0.47	-0.08
Grumpy	-0.41	0.13	0.03

Note. Values for orienting (drawing) constructs in component space.

{Graph Created: BG / PC_1 vs. PC_2 (Slater)}
{Graph Created: BG / PC_1 vs. PC_3 (Slater)}
{Graph Created: BG / PC_2 vs. PC_3 (Slater)}

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Slater Analyses for BW

Original Grid (BW)

```
                  Self now
                  .       Ideal self
                  .       .       Self as middle aged
                  .       .       .       Self as young adult
                  .       .       .       .       How you see older
people
                  .       .       .       .       .       How others
see you now
                  .       .       .       .       .       .       How
others saw you as middle aged
                  .       .       .       .       .       .       .
How others saw you as young adult
                  .       .       .       .       .       .       .
.       How others see typical older person
                  .       .       .       .       .       .       .
.       .       How others see typical middle aged adult
                  .       .       .       .       .       .       .
.       .       .       How others see typical young adult
          Old    7.00    4.00    4.00    4.00    4.00    4.00    4.00
3.00    5.00    3.00    3.00   Young
    Respected    7.00    7.00    7.00    7.00    7.00    7.00    7.00
5.00    5.00    5.00    5.00   Disrespected
        Happy    7.00    7.00    7.00    7.00    5.00    7.00    7.00
7.00    5.00    5.00    3.00   Unhappy
       Stable    7.00    7.00    7.00    5.00    3.00    7.00    7.00
5.00    5.00    5.00    3.00   Unstable
Understanding    7.00    7.00    5.00    3.00    6.00    5.00    5.00
3.00    5.00    5.00    3.00   Misunderstanding
       Mature    7.00    5.00    5.00    5.00    6.00    5.00    5.00
3.00    5.00    5.00    3.00   Immature
   Look older    5.00    5.00    5.00    3.00    3.00    3.00    3.00
3.00    4.00    4.00    5.00   Look younger
       Slower    7.00    5.00    5.00    2.00    5.00    6.00    5.00
3.00    6.00    5.00    3.00   Faster
   Successful    7.00    5.00    5.00    3.00    4.00    6.00    5.00
3.00    5.00    5.00    3.00   Unsuccessful
       Active    3.00    4.00    4.00    6.00    3.00    5.00    6.00
7.00    5.00    5.00    4.00   Less active
  Comfortable    7.00    6.00    5.00    4.00    5.00    7.00    5.00
3.00    6.00    5.00    4.00   Uncomfortable
 Satisfaction    7.00    5.00    4.00    3.00    5.00    6.00    5.00
3.00    5.00    4.00    3.00   Dissatisfied
```

Descriptive Statistics for Elements [BW]

Means

	Sum of Squares		Percent Total Sum of Squares
Self now	1.54	44.93	22.84
Ideal self	0.62	10.66	5.42
Self as middle aged	0.29	5.75	2.92
Self as young adult	-0.63	21.66	11.01
How you see older people	-0.30	15.12	7.68
How others see you now	0.70	13.30	6.76
How others saw you as middle aged	0.37	6.39	3.25
How others saw you as young adult	-0.96	30.02	15.26
How others see typical older person	0.12	6.66	3.39
How others see typical middle aged adult	-0.30	4.93	2.51
How others see typical young adult	-1.46	37.30	18.96

Note. Values are based upon deviation matrix in which construct means were removed
from the original grid scores.
Total SS: 196.73

Element Euclidean Distances

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	5.20	0.00									
Self as middle aged	6.24	2.45	0.00								
Self as young adult	10.58	7.00	5.57	0.00							
How you see older people	7.48	5.39	5.39	6.48	0.00						
How others see you now	5.29	3.61	3.87	7.21	6.00	0.00					
How others saw you as middle aged	6.78	3.61	3.00	5.10	5.66	2.83	0.00				
How others saw you as young adult	11.83	7.94	6.56	3.46	7.75	8.00	5.83	0.00			

How others see typical older person	6.24	4.47	4.24	6.56	4.36	4.12	4.12	6.86	0.00	
How others see typical middle aged adult	7.87	4.58	3.87	5.48	4.24	4.90	4.00	5.48	2.65	0.00
How others see typical young adult	11.92	8.54	7.42	6.16	6.48	9.27	8.12	5.83	6.56	5.29	0.00

Element Euclidean Distances (standardized)

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	0.83	0.00									
Self as middle aged	1.00	0.39	0.00								
Self as young adult	1.69	1.12	0.89	0.00							
How you see older people	1.19	0.86	0.86	1.03	0.00						
How others see you now	0.84	0.57	0.62	1.15	0.96	0.00					
How others saw you as middle aged	1.08	0.57	0.48	0.81	0.90	0.45	0.00				
How others saw you as young adult	1.89	1.27	1.05	0.55	1.23	1.28	0.93	0.00			
How others see typical older person	1.00	0.71	0.68	1.05	0.69	0.66	0.66	1.09	0.00		
How others see typical middle aged adult	1.26	0.73	0.62	0.87	0.68	0.78	0.64	0.87	0.42	0.00	
How others see typical young adult	1.90	1.36	1.18	0.98	1.03	1.48	1.30	0.93	1.05	0.84	0.00

Note. Values are standardized around the expected distance between random pairings of elements. For this grid: 6.27.

Descriptive Statistics for Constructs [(BW)]

	Means	Sum of Squares	Percent Total Sum of Squares
Old	4.09	12.91	6.56
Respected	6.27	10.18	5.18
Happy	6.09	18.91	9.61
Stable	5.55	24.73	12.57
Understanding	4.91	20.91	10.63
Mature	4.91	12.91	6.56
Look older	3.91	8.91	4.53
Slower	4.73	22.18	11.28
Successful	4.64	16.55	8.41
Active	4.73	16.18	8.23
Comfortable	5.18	15.64	7.95
Satisfaction	4.55	16.73	8.50

Total SS: 196.73
Bias: 0.39
Variability: 0.43

Construct Correlations

	Old	Respected	Happy	Stable	Understanding	Mature	Look older	Slower	Successful	Active	Comfortable	Satisfaction
Old	1.00											
Respected	0.41	1.00										
Happy	0.31	0.63	1.00									
Stable	0.42	0.53	0.81	1.00								
Understanding	0.61	0.50	0.26	0.46	1.00							
Mature	0.78	0.63	0.33	0.37	0.79	1.00						
Look older	0.29	-0.08	-0.22	0.17	0.36	0.08	1.00					
Slower	0.67	0.25	0.16	0.50	0.82	0.69	0.27	1.00				
Successful	0.71	0.39	0.36	0.70	0.79	0.73	0.30	0.93	1.00			
Active	-0.47	-0.33	0.30	0.08	-0.67	-0.57	-0.61	-0.52	-0.43	1.00		

Comfortable	0.69	0.43	0.22	0.55	0.78	0.72	0.27	0.89	0.92	-0.53	1.00
Satisfaction	0.78	0.49	0.31	0.53	0.83	0.79	0.13	0.92	0.91	-0.51	0.92	1.00

Direction cosines between Constructs and Elements

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Old	0.90	0.40	0.20	-0.46	0.06	0.43	0.10	-0.70	0.41	-0.54	-0.61
Respected	0.50	0.58	0.51	-0.03	0.13	0.50	0.46	-0.50	-0.51	-0.78	-0.66
Happy	0.34	0.48	0.54	0.12	-0.50	0.55	0.80	-0.02	-0.47	-0.68	-0.82
Stable	0.57	0.70	0.70	-0.32	-0.65	0.74	0.74	-0.33	-0.16	-0.48	-0.82
Understanding	0.85	0.82	0.32	-0.78	0.27	0.50	0.11	-0.86	0.23	-0.21	-0.67
Mature	0.86	0.49	0.21	-0.47	0.36	0.48	0.17	-0.83	0.19	-0.36	-0.72
Look older	0.38	0.50	0.55	-0.48	-0.12	-0.17	-0.48	-0.44	0.18	0.06	0.13
Slower	0.87	0.54	0.20	-0.92	0.09	0.71	0.18	-0.82	0.57	-0.07	-0.66
Successful	0.91	0.63	0.38	-0.80	-0.13	0.80	0.33	-0.81	0.39	-0.20	-0.77
Active	-0.62	-0.46	-0.23	0.62	-0.61	-0.05	0.54	0.83	-0.22	0.09	0.05
Comfortable	0.88	0.62	0.22	-0.78	0.04	0.80	0.18	-0.88	0.45	-0.25	-0.67
Satisfaction	0.92	0.57	0.14	-0.77	0.14	0.78	0.28	-0.84	0.42	-0.36	-0.75

Note. Values reflect construct/element cosines (correlations) in the full component space.

Eigenvalue Decomposition

Eigenvalue	% Variance	Cumulative %	Scree

PC_ 1	119.02	60.50	60.50	|**********
PC_ 2	37.81	19.22	79.72	|*****
PC_ 3	13.76	7.00	86.72	|**
PC_ 4	11.32	5.75	92.47	|**
PC_ 5	6.45	3.28	95.75	|**
PC_ 6	3.91	1.99	97.73	|*
PC_ 7	1.86	0.95	98.68	|*
PC_ 8	1.40	0.71	99.39	|*
PC_ 9	0.75	0.38	99.78	|*
PC_10	0.44	0.22	100.00	|*

Element Loadings

	PC_1	PC_2	PC_3
Self now	6.48	0.73	0.31
Ideal self	2.41	-0.47	0.31
Self as middle aged	0.97	-0.90	0.21
Self as young adult	-3.53	-2.02	1.91
How you see older people	0.10	2.80	2.19
How others see you now	2.74	-1.34	-0.84
How others saw you as middle aged	0.76	-2.16	-0.18
How others saw you as young adult	-4.82	-2.23	-0.66
How others see typical older person	0.75	1.42	-1.48
How others see typical middle aged adult	-0.85	1.04	-1.19
How others see typical young adult	-5.01	3.14	-0.58

Note. Values for plotting elements in the component space.

Element Eigenvectors

	PC_1	PC_2	PC_3
Self now	0.59	0.12	0.08
Ideal self	0.22	-0.08	0.08
Self as middle aged	0.09	-0.15	0.06
Self as young adult	-0.32	-0.33	0.51
How you see older people	0.01	0.45	0.59
How others see you now	0.25	-0.22	-0.23
How others saw you as middle aged	0.07	-0.35	-0.05
How others saw you as young adult	-0.44	-0.36	-0.18
How others see typical older person	0.07	0.23	-0.40
How others see typical middle aged adult	-0.08	0.17	-0.32
How others see typical young adult	-0.46	0.51	-0.16

Construct Loadings

	PC_1	PC_2	PC_3
Old	2.83	0.27	0.51
Respected	1.82	-1.09	2.11
Happy	1.84	-3.75	0.88

Stable	3.35	-3.28	-0.97
Understanding	4.09	0.90	0.57
Mature	3.00	0.40	1.43
Look older	0.88	1.21	-0.58
Slower	4.28	0.94	-1.33
Successful	3.88	-0.07	-1.01
Active	-2.20	-2.84	-1.22
Comfortable	3.65	0.50	-0.60
Satisfaction	3.88	0.36	-0.16

Construct Eigenvectors

	PC_1	PC_2	PC_3
Old	0.26	0.04	0.14
Respected	0.17	-0.18	0.57
Happy	0.17	-0.61	0.24
Stable	0.31	-0.53	-0.26
Understanding	0.37	0.15	0.15
Mature	0.27	0.06	0.38
Look older	0.08	0.20	-0.16
Slower	0.39	0.15	-0.36
Successful	0.36	-0.01	-0.27
Active	-0.20	-0.46	-0.33
Comfortable	0.33	0.08	-0.16
Satisfaction	0.36	0.06	-0.04

Note. Values for orienting (drawing) constructs in component space.

{Graph Created: BW / PC_1 vs. PC_2 (Slater)}
{Graph Created: BW / PC_1 vs. PC_3 (Slater)}
{Graph Created: BW / PC_2 vs. PC_3 (Slater)}

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Slater Analyses for CB

Original Grid (CB)

```
                              Self now
                              .       Ideal self
                              .       .       Self as middle aged
                              .       .       .       Self as young
adult
                              .       .       .       .       How you
see older people
                              .       .       .       .       .
How others see you now
                              .       .       .       .       .       .
How others saw you as middle aged
                              .       .       .       .       .       .
.       How others saw you as young adult
                              .       .       .       .       .       .
.       .       How others see typical older person
                              .       .       .       .       .       .
.       .       .       How others see typical middle aged adult
                              .       .       .       .       .       .
.       .       .       .       How others see typical young adult
                    Old    7.00    5.00    4.00    3.00    7.00
7.00    4.00    3.00    7.00    5.00    2.00   Young
                Respected    6.00    7.00    7.00    7.00    7.00
7.00    7.00    7.00    5.00    6.00    3.00   Not respected
                 Positive    6.00    7.00    6.00    6.00    5.00
6.00    5.00    6.00    4.00    5.00    4.00   Negative
             Poor Health    5.00    1.00    4.00    1.00    4.00
5.00    3.00    1.00    6.00    4.00    2.00   Healthy
                    Busy    5.00    7.00    5.00    7.00    5.00
4.00    6.00    7.00    2.00    5.00    4.00   Lazy
          Memory Problems    6.00    1.00    5.00    1.00    6.00
4.00    2.00    1.00    6.00    4.00    2.00   Good memory
        Having a routine    7.00    7.00    7.00    7.00    6.00
5.00    5.00    5.00    3.00    4.00    2.00   Chaotic
                Isolated    5.00    5.00    5.00    5.00    6.00
5.00    5.00    5.00    4.00    2.00    2.00   Over-bearing
environment
       Consistent person    6.00    7.00    6.00    6.00    4.00
5.00    6.00    6.00    4.00    5.00    2.00   Unreliable
Struggling (getting by)    7.00    7.00    7.00    7.00    5.00
7.00    7.00    7.00    3.00    5.00    6.00   Give up
          Life pressures    7.00    4.00    7.00    6.00    5.00
7.00    4.00    2.00    4.00    5.00    4.00   No pressures
            Has a purpose    6.00    7.00    7.00    7.00    7.00
6.00    6.00    7.00    2.00    4.00    6.00   No purpose
```

Descriptive Statistics for Elements [CB]

	Means	Sum of Squares	Percent Total Sum of Squares
Self now	1.04	22.87	7.74
Ideal self	0.37	26.87	9.09
Self as middle aged	0.79	14.41	4.88
Self as young adult	0.20	25.78	8.72
How you see older people	0.54	19.05	6.45
How others see you now	0.62	14.96	5.06
How others saw you as middle aged	-0.05	7.14	2.42
How others saw you as young adult	-0.30	30.87	10.45
How others see typical older person	-0.88	65.32	22.11
How others see typical middle aged adult	-0.55	13.87	4.69
How others see typical young adult	-1.80	54.32	18.39

Note. Values are based upon deviation matrix in which construct means were removed from the original grid scores.

Total SS: 295.45

Element Euclidean Distances

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	7.87	0.00									
Self as middle aged	3.61	6.40	0.00								
Self as young adult	8.00	3.16	5.57	0.00							
How you see older people	4.24	7.87	5.00	8.12	0.00						
How others see you now	3.32	7.55	4.24	7.55	4.36	0.00					
How others saw you as middle aged	6.71	4.12	5.10	4.12	6.24	5.66	0.00				

```
       How others saw you as young adult     9.59     3.74     7.68
4.47     8.60     8.77     3.61     0.00
     How others see typical older person     8.77    12.61    10.10
12.85     7.81     8.00     9.80    12.37     0.00
How others see typical middle aged adult     6.40     7.94     6.32
7.81     6.24     5.48     5.29     7.81     6.16     0.00
      How others see typical young adult    11.14    10.30     9.95
9.38    10.10     9.75     7.81     8.49     9.95     6.86     0.00
```

Element Euclidean Distances (standardized)

```
                                             Self now
                                             |        Ideal self
                                             |        |        Self
as middle aged
                                             |        |        |
Self as young adult
                                             |        |        |
|        How you see older people
                                             |        |        |
|        |        How others see you now
                                             |        |        |
|        |        |        How others saw you as middle aged
                                             |        |        |
|        |        |        |        How others saw you as young adult
                                             |        |        |
|        |        |        |        |        How others see typical
older person
                                              |        |        |
|        |        |        |        |        |        How others see
typical middle aged adult
                                              |        |        |
|        |        |        |        |        |        |        How
others see typical young adult
                                              |        |        |
|        |        |        |        |        |        |        |
                                Self now     0.00
                              Ideal self     1.02     0.00
                   Self as middle aged     0.47     0.83     0.00
                   Self as young adult     1.04     0.41     0.72
0.00
               How you see older people     0.55     1.02     0.65
1.06     0.00
                 How others see you now     0.43     0.98     0.55
0.98     0.57     0.00
       How others saw you as middle aged     0.87     0.54     0.66
0.54     0.81     0.74     0.00
       How others saw you as young adult     1.25     0.49     1.00
0.58     1.12     1.14     0.47     0.00
     How others see typical older person     1.14     1.64     1.31
1.67     1.02     1.04     1.27     1.61     0.00
How others see typical middle aged adult     0.83     1.03     0.82
1.02     0.81     0.71     0.69     1.02     0.80     0.00
      How others see typical young adult     1.45     1.34     1.29
1.22     1.31     1.27     1.02     1.10     1.29     0.89     0.00
```

Note. Values are standardized around the expected distance between random pairings of elements. For this grid: 7.69.

Descriptive Statistics for Constructs [(CB)]

	Means	Sum of Squares	Percent Total Sum of Squares
Old	4.91	34.91	11.82
Respected	6.27	16.18	5.48
Positive	5.45	8.73	2.95
Poor Health	3.27	32.18	10.89
Busy	5.18	23.64	8.00
Memory Problems	3.45	44.73	15.14
Having a routine	5.27	30.18	10.22
Isolated	4.45	16.73	5.66
Consistent person	5.18	19.64	6.65
Struggling (getting by)	6.18	17.64	5.97
Life pressures	5.00	26.00	8.80
Has a purpose	5.91	24.91	8.43

Total SS: 295.45
Bias: 0.46
Variability: 0.52

Construct Correlations

	Old	Respected	Positive	Poor Health	Busy	Memory Problems	Having a routine	Isolated	Consistent person	Struggling (getting by)	Life pressures	Has a purpose
Old	1.00											
Respected	0.22	1.00										
Positive	0.03	0.73	1.00									
Poor Health	0.78	-0.12	-0.38	1.00								
Busy	-0.48	0.59	0.70	-0.82	1.00							
Memory Problems	0.77	-0.09	-0.32	0.91	-0.70	1.00						
Having a routine	0.16	0.78	0.84	-0.19	0.62	-0.01	1.00					
Isolated	0.35	0.77	0.56	-0.02	0.36	0.10	0.74	1.00				

Consistent person	0.05	0.81	0.85	-0.26	0.68	-0.27	0.80	0.56	1.00					
Struggling (getting by)	-0.40	0.44	0.73	-0.53	0.72	-0.53	0.58	0.35	0.57	1.00				
Life pressures	0.40	0.20	0.27	0.48	-0.20	0.50	0.46	0.19	0.13	0.23	1.00			
Has a purpose	-0.38	0.46	0.64	-0.63	0.75	-0.44	0.63	0.51	0.37	0.82	0.12	1.00		

Direction cosines between Constructs and Elements

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Old	0.75	-0.34	0.12	-0.63	0.73	0.75	-0.59	-0.69	0.53	0.11	-0.60
Respected	0.27	0.56	0.46	0.43	0.23	0.22	0.37	0.24	-0.49	-0.53	-0.86
Positive	0.29	0.80	0.47	0.63	-0.11	0.13	0.25	0.33	-0.73	-0.61	-0.65
Poor Health	0.68	-0.79	0.21	-0.84	0.54	0.73	-0.65	-0.89	0.76	0.42	-0.26
Busy	-0.26	0.91	0.14	0.88	-0.32	-0.47	0.67	0.78	-0.90	-0.56	-0.27
Memory Problems	0.76	-0.73	0.36	-0.77	0.75	0.59	-0.78	-0.86	0.66	0.28	-0.31
Having a routine	0.52	0.60	0.72	0.57	0.22	0.16	0.09	0.09	-0.63	-0.67	-0.80
Isolated	0.40	0.40	0.46	0.26	0.52	0.28	0.19	0.11	-0.35	-0.82	-0.77
Consistent person	0.26	0.73	0.42	0.55	-0.18	0.01	0.45	0.34	-0.56	-0.43	-0.77
Struggling (getting by)	0.05	0.65	0.45	0.73	-0.37	0.02	0.51	0.46	-0.91	-0.68	-0.21
Life pressures	0.78	-0.26	0.78	0.00	0.27	0.73	-0.54	-0.71	-0.07	-0.10	-0.41
Has a purpose	-0.02	0.64	0.44	0.73	0.01	-0.13	0.36	0.51	-0.91	-0.83	-0.18

Note. Values reflect construct/element cosines (correlations) in the full

component space.

Eigenvalue Decomposition

	Eigenvalue	% Variance	Cumulative %	Scree
PC_ 1	144.41	48.88	48.88	|**********
PC_ 2	93.10	31.51	80.39	|*******
PC_ 3	24.22	8.20	88.59	|***
PC_ 4	13.32	4.51	93.10	|**
PC_ 5	7.00	2.37	95.47	|*
PC_ 6	5.28	1.79	97.25	|*
PC_ 7	3.81	1.29	98.54	|*
PC_ 8	2.98	1.01	99.55	|*
PC_ 9	1.19	0.40	99.95	|*
PC_10	0.14	0.05	100.00	|*

Element Loadings

	PC_1	PC_2	PC_3
Self now	1.97	-4.01	-1.00
Ideal self	-4.66	-0.91	1.49
Self as middle aged	-0.37	-2.82	-1.95
Self as young adult	-4.73	-0.38	-0.84
How you see older people	2.12	-2.38	0.59
How others see you now	1.93	-2.38	-0.84
How others saw you as middle aged	-1.96	0.61	0.88
How others saw you as young adult	-4.69	1.99	1.86
How others see typical older person	7.53	1.75	2.12
How others see typical middle aged adult	2.29	1.74	0.27
How others see typical young adult	0.57	6.80	-2.57

Note. Values for plotting elements in the component space.

Element Eigenvectors

	PC_1	PC_2	PC_3
Self now	0.16	-0.42	-0.20
Ideal self	-0.39	-0.09	0.30
Self as middle aged	-0.03	-0.29	-0.40
Self as young adult	-0.39	-0.04	-0.17
How you see older people	0.18	-0.25	0.12
How others see you now	0.16	-0.25	-0.17
How others saw you as middle aged	-0.16	0.06	0.18
How others saw you as young adult	-0.39	0.21	0.38
How others see typical older person	0.63	0.18	0.43
How others see typical middle aged adult	0.19	0.18	0.05
How others see typical young adult	0.05	0.71	-0.52

Construct Loadings

	PC_1

	PC_2		PC_3
Old	3.87	-3.68	1.72
Respected	-1.80	-2.95	1.38
Positive	-1.94	-1.86	0.13
Poor Health	5.16	-1.99	-0.18
Busy	-4.59	-0.79	0.60
Memory Problems	5.65	-3.01	-0.55
Having a routine	-2.70	-4.59	-0.16
Isolated	-1.16	-3.08	1.09
Consistent person	-2.53	-2.72	1.41
Struggling (getting by)	-3.29	-1.30	-1.55
Life pressures	1.24	-3.42	-3.24
Has a purpose	-3.91	-1.55	-1.60

Construct Eigenvectors

	PC_1	PC_2	PC_3
Old	0.32	-0.38	0.35
Respected	-0.15	-0.31	0.28
Positive	-0.16	-0.19	0.03
Poor Health	0.43	-0.21	-0.04
Busy	-0.38	-0.08	0.12
Memory Problems	0.47	-0.31	-0.11
Having a routine	-0.22	-0.48	-0.03
Isolated	-0.10	-0.32	0.22
Consistent person	-0.21	-0.28	0.29
Struggling (getting by)	-0.27	-0.13	-0.31
Life pressures	0.10	-0.35	-0.66
Has a purpose	-0.33	-0.16	-0.32

Note. Values for orienting (drawing) constructs in component space.

{Graph Created: CB / PC_1 vs. PC_2 (Slater)}
{Graph Created: CB / PC_1 vs. PC_3 (Slater)}
{Graph Created: CB / PC_2 vs. PC_3 (Slater)}

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Slater Analyses for CF

Original Grid (CF)

```
                  Self now
                  .       Ideal self
                  .       .       Self as middle aged
                  .       .       .       Self as young adult
                  .       .       .       .       How you see older
people
                  .       .       .       .       .       How others
see you now
                  .       .       .       .       .       .
How others saw you as middle aged
                  .       .       .       .       .       .       .
How others saw you as young adult
                  .       .       .       .       .       .       .
.       How others see typical older person
                  .       .       .       .       .       .       .
.       .       How others see typical middle aged adult
                  .       .       .       .       .       .       .
.       .       .       How others see typical young adult
          Old    5.00    4.00    1.00    1.00    4.00    6.00
4.00    1.00    5.00    4.00    1.00   Young
     Respected    7.00    7.00    7.00    7.00    7.00    7.00
7.00    7.00    7.00    7.00    7.00   Not respected
Self-confident    7.00    7.00    7.00    7.00    4.00    7.00
7.00    7.00    7.00    7.00    7.00   Lack of confidence
     Enjoyment    7.00    7.00    7.00    7.00    6.00    7.00
7.00    7.00    7.00    7.00    7.00   Non enjoyment
          Fit    7.00    7.00    7.00    7.00    4.00    7.00
7.00    7.00    4.00    5.00    7.00   Not well
  Appreciative    7.00    7.00    7.00    7.00    7.00    7.00
7.00    7.00    7.00    7.00    5.00   Non appreciative
         Happy    7.00    7.00    1.00    7.00    6.00    6.00
1.00    7.00    4.00    5.00    6.00   Sad
          Busy    2.00    7.00    7.00    7.00    1.00    1.00
7.00    7.00    1.00    6.00    7.00   Less Busy
         Tired    5.00    1.00    2.00    1.00    5.00    4.00
1.00    1.00    5.00    4.00    2.00   Full of energy
       Healthy    7.00    7.00    7.00    7.00    4.00    7.00
7.00    7.00    4.00    6.00    7.00   Unhealthy
        Mature    7.00    7.00    7.00    7.00    7.00    7.00
7.00    7.00    7.00    7.00    5.00   Immature
   Independent    7.00    7.00    7.00    7.00    4.00    6.00
7.00    7.00    5.00    7.00    7.00   More dependent
```

Descriptive Statistics for Elements [CF]

Means

	Sum of Squares		Percent Total Sum of Squares
Self now	0.46	20.37	7.87
Ideal self	0.46	13.28	5.13
Self as middle aged	-0.20	29.46	11.38
Self as young adult	0.21	17.92	6.92
How you see older people	-0.87	45.64	17.63
How others see you now	0.21	25.37	9.80
How others saw you as middle aged	-0.04	27.46	10.61
How others saw you as young adult	0.21	17.92	6.92
How others see typical older person	-0.54	36.74	14.19
How others see typical middle aged adult	0.21	5.55	2.15
How others see typical young adult	-0.12	19.19	7.41

Note. Values are based upon deviation matrix in which construct means were removed
from the original grid scores.
Total SS: 258.91

Element Euclidean Distances

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	6.48	0.00									
Self as middle aged	9.27	6.78	0.00								
Self as young adult	7.55	3.00	6.08	0.00							
How you see older people	6.32	9.49	10.77	9.95	0.00						
How others see you now	2.24	7.14	9.54	8.49	6.08	0.00					
How others saw you as middle aged	8.83	6.00	3.16	6.71	10.68	8.66	0.00				
How others saw you as young adult	7.55	3.00	6.08	0.00	9.95	8.49	6.71	0.00			

How others see typical older person	5.66	9.17	9.59	9.95	4.00	5.00	9.17	9.95	0.00
How others see typical middle aged adult	5.20	4.36	5.92	5.29	7.14	6.00	5.57	5.29	6.08	0.00
How others see typical young adult	7.68	4.36	5.74	3.16	9.95	8.60	6.56	3.16	9.75	5.29	0.00

Element Euclidean Distances (standardized)

Self now										
Ideal self	0.90	0.00								
Self as middle aged	1.29	0.94	0.00							
Self as young adult	1.05	0.42	0.85	0.00						
How you see older people	0.88	1.32	1.50	1.38	0.00					
How others see you now	0.31	0.99	1.33	1.18	0.85	0.00				
How others saw you as middle aged	1.23	0.83	0.44	0.93	1.48	1.20	0.00			
How others saw you as young adult	1.05	0.42	0.85	0.00	1.38	1.18	0.93	0.00		
How others see typical older person	0.79	1.27	1.33	1.38	0.56	0.69	1.27	1.38	0.00	
How others see typical middle aged adult	0.72	0.61	0.82	0.74	0.99	0.83	0.77	0.74	0.85	0.00
How others see typical young adult	1.07	0.61	0.80	0.44	1.38	1.20	0.91	0.44	1.35	0.74	0.00

Note. Values are standardized around the expected distance between random pairings of elements. For this grid: 7.20.

Descriptive Statistics for Constructs [(CF)]

	Means	Sum of Squares	Percent Total Sum of Squares
Old	3.27	36.18	13.97
Respected	7.00	0.00	0.00
Self-confident	6.73	8.18	3.16
Enjoyment	6.91	0.91	0.35
Fit	6.27	16.18	6.25
Appreciative	6.82	3.64	1.40
Happy	5.18	51.64	19.94
Busy	4.82	81.64	31.53
Tired	2.82	31.64	12.22
Healthy	6.36	14.55	5.62
Mature	6.82	3.64	1.40
Independent	6.45	10.73	4.14

Total SS: 258.91
Bias: 0.75
Variability: 0.49

Construct Correlations

	Old	Respected	Self-confident	Enjoyment	Fit	Appreciative	Happy	Busy	Tired	Healthy	Mature	Independent
Old	1.00											
Respected	.	.										
Self-confident	-0.13	.	1.00									
Enjoyment	-0.13	.	1.00	1.00								
Fit	-0.36	.	0.59	0.59	1.00							
Appreciative	0.40	.	-0.10	-0.10	-0.19	1.00						
Happy	0.03	.	-0.12	-0.12	0.05	-0.12	1.00					
Busy	-0.74	.	0.44	0.44	0.57	-0.25	-0.18	1.00				
Tired	0.67	.	-0.41	-0.41	-0.68	0.15	0.11	-0.89	1.00			
Healthy	-0.35	.	0.65	0.65	0.97	-0.17	0.05	0.63	-0.67	1.00		

Mature	0.40	.	-0.10	-0.10	-0.19	1.00	-0.12	-0.25	0.15	-0.17	1.00		
Independent	-0.42	.	0.79	0.79	0.81	-0.17	-0.04	0.77	-0.66	0.90	-0.17	1.00	

Direction cosines between Constructs and Elements

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Old	0.70	-0.24	-0.58	-0.81	0.47	0.85	-0.16	-0.81	0.67	0.20	-0.80
Respected	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Self-confident	-0.07	0.38	0.29	0.30	-0.82	-0.13	0.36	0.30	-0.40	0.10	0.29
Enjoyment	-0.07	0.38	0.29	0.30	-0.82	-0.13	0.36	0.30	-0.40	0.10	0.29
Fit	-0.11	0.59	0.34	0.58	-0.82	-0.16	0.35	0.58	-0.82	-0.46	0.51
Appreciative	0.18	-0.04	-0.06	-0.21	0.19	0.27	0.08	-0.21	0.27	0.14	-0.80
Happy	0.49	0.42	-0.80	0.37	0.18	0.25	-0.84	0.37	-0.14	-0.15	0.16
Busy	-0.78	0.65	0.64	0.78	-0.83	-0.87	0.56	0.78	-0.87	0.12	0.72
Tired	0.74	-0.73	-0.54	-0.81	0.79	0.70	-0.55	-0.81	0.86	0.26	-0.62
Healthy	-0.12	0.63	0.35	0.59	-0.88	-0.22	0.37	0.59	-0.85	-0.26	0.52
Mature	0.18	-0.04	-0.06	-0.21	0.19	0.27	0.08	-0.21	0.27	0.14	-0.80
Independent	-0.25	0.63	0.44	0.61	-0.95	-0.44	0.42	0.61	-0.82	0.12	0.56

Note. Values reflect construct/element cosines (correlations) in the full component space.

Eigenvalue Decomposition

Eigenvalue	% Variance	Cumulative %	Scree

PC_ 1	154.22	59.56	59.56	|**********
PC_ 2	52.17	20.15	79.72	|*****
PC_ 3	26.48	10.23	89.94	|***
PC_ 4	10.31	3.98	93.93	|**
PC_ 5	7.54	2.91	96.84	|**
PC_ 6	4.81	1.86	98.70	|*
PC_ 7	3.22	1.24	99.94	|*
PC_ 8	0.12	0.05	99.99	|*
PC_ 9	0.04	0.01	100.00	|*
PC_10	0.00	0.00	100.00	|*

Element Loadings

	PC_1	PC_2	PC_3
Self now	3.32	-1.81	2.07
Ideal self	-2.30	-1.90	1.00
Self as middle aged	-3.62	3.74	-0.42
Self as young adult	-3.43	-2.15	-0.83
How you see older people	5.91	-0.03	-2.97
How others see you now	4.10	-0.77	2.61
How others saw you as middle aged	-2.91	3.95	1.44
How others saw you as young adult	-3.43	-2.15	-0.83
How others see typical older person	5.49	1.95	-0.80
How others see typical middle aged adult	0.14	0.52	-0.15
How others see typical young adult	-3.28	-1.34	-1.13

Note. Values for plotting elements in the component space.

Element Eigenvectors

	PC_1	PC_2	PC_3
Self now	0.27	-0.25	0.40
Ideal self	-0.18	-0.26	0.19
Self as middle aged	-0.29	0.52	-0.08
Self as young adult	-0.28	-0.30	-0.16
How you see older people	0.48	0.00	-0.58
How others see you now	0.33	-0.11	0.51
How others saw you as middle aged	-0.23	0.55	0.28
How others saw you as young adult	-0.28	-0.30	-0.16
How others see typical older person	0.44	0.27	-0.15
How others see typical middle aged adult	0.01	0.07	-0.03
How others see typical young adult	-0.26	-0.19	-0.22

Construct Loadings

	PC_1	PC_2	PC_3
Old	4.70	0.60	3.13
Respected	0.00	0.00	0.00
Self-confident	-1.43	0.01	1.73

Enjoyment	-0.48	0.00	0.58
Fit	-2.78	-0.94	2.26
Appreciative	0.53	0.37	0.44
Happy	1.26	-7.04	-0.38
Busy	-8.84	0.22	-0.63
Tired	5.21	0.29	-0.19
Healthy	-2.77	-0.87	2.23
Mature	0.53	0.37	0.44
Independent	-2.64	-0.42	1.54

Construct Eigenvectors

	PC_1	PC_2	PC_3
Old	0.38	0.08	0.61
Respected	0.00	0.00	0.00
Self-confident	-0.12	0.00	0.34
Enjoyment	-0.04	0.00	0.11
Fit	-0.22	-0.13	0.44
Appreciative	0.04	0.05	0.09
Happy	0.10	-0.97	-0.07
Busy	-0.71	0.03	-0.12
Tired	0.42	0.04	-0.04
Healthy	-0.22	-0.12	0.43
Mature	0.04	0.05	0.09
Independent	-0.21	-0.06	0.30

Note. Values for orienting (drawing) constructs in component space.

{Graph Created: CF / PC_1 vs. PC_2 (Slater)}
{Graph Created: CF / PC_1 vs. PC_3 (Slater)}
{Graph Created: CF / PC_2 vs. PC_3 (Slater)}

29/04/2008 (11:21:05)

Slater Analyses for DB

Original Grid (DB)

```
                          Self now
                          .       Ideal self
                          .       .       Self as middle aged
                          .       .       .       Self as young
adult
                          .       .       .       .       How you
see older people
                          .       .       .       .       .
How others see you now
                          .       .       .       .       .       .
How others saw you as middle aged
                          .       .       .       .       .       .
.       How others saw you as young adult
                          .       .       .       .       .       .
.       .       How others see typical older person
                          .       .       .       .       .       .
.       .       .       How others see typical middle aged adult
                          .       .       .       .       .       .
.       .       .       .       How others see typical young adult
                  Old    4.00    1.00    4.00    2.00    7.00
6.00    3.00    1.00    7.00    3.00    1.00   Young
             Respected    6.00    7.00    6.00    4.00    3.00
6.00    6.00    6.00    1.00    6.00    4.00   Disrespected
                Busy    6.00    7.00    7.00    7.00    5.00
5.00    7.00    7.00    4.00    6.00    3.00   Not doing anything
           Experienced    7.00    5.00    5.00    1.00    6.00
7.00    4.00    2.00    7.00    5.00    4.00   Not experienced
              Healthy    5.00    7.00    6.00    7.00    4.00
3.00    7.00    7.00    4.00    4.00    7.00   Unhealthy
           Independent    7.00    7.00    6.00    5.00    6.00
6.00    7.00    4.00    4.00    6.00    2.00   Dependent
            Charitable    7.00    7.00    7.00    7.00    4.00
5.00    7.00    7.00    4.00    4.00    3.00   Uncharitable
                   Fit    4.00    7.00    7.00    7.00    4.00
3.00    7.00    7.00    4.00    6.00    6.00   Unfit
             Forgotten    5.00    1.00    4.00    4.00    7.00
1.00    4.00    4.00    7.00    2.00    2.00   Remembered (kept in
mind)
Financially better off    5.00    7.00    3.00    1.00    7.00
7.00    4.00    1.00    7.00    6.00    4.00   Poor
       Family Support    1.00    7.00    7.00    7.00    1.00
6.00    7.00    7.00    1.00    6.00    6.00   Not having anybody
       Career Focused    4.00    7.00    4.00    4.00    4.00
3.00    4.00    4.00    4.00    7.00    2.00   No career
```

Descriptive Statistics for Elements [DB]

	Means	Sum of Squares	Percent Total Sum of Squares
Self now	0.14	31.73	7.28
Ideal self	0.89	43.82	10.05
Self as middle aged	0.56	13.64	3.13
Self as young adult	-0.27	43.09	9.88
How you see older people	-0.11	58.73	13.47
How others see you now	-0.11	41.64	9.55
How others saw you as middle aged	0.64	15.91	3.65
How others saw you as young adult	-0.19	42.45	9.74
How others see typical older person	-0.44	78.55	18.02
How others see typical middle aged adult	0.14	19.73	4.52
How others see typical young adult	-1.27	46.73	10.72

Note. Values are based upon deviation matrix in which construct means were removed
from the original grid scores.
Total SS: 436.00

Element Euclidean Distances

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	9.64	0.00									
Self as middle aged	7.55	6.78	0.00								
Self as young adult	10.72	9.17	5.48	0.00							
How you see older people	6.24	12.88	10.30	12.81	0.00						
How others see you now	7.81	9.38	8.25	12.00	8.72	0.00					
How others saw you as middle aged	7.87	5.74	2.24	5.20	10.72	8.89	0.00				

```
       How others saw you as young adult    10.49     8.54     5.20
2.65    13.30    11.87     5.10     0.00
     How others see typical older person     8.06    14.21    11.58
13.71     3.16     9.80    12.21    14.25     0.00
How others see typical middle aged adult     8.00     5.39     6.24
9.00     9.54     6.56     6.32     8.72    10.82     0.00
      How others see typical young adult    10.91    10.20     8.60
8.37    11.75     9.90     8.66     7.94    11.66     8.54     0.00
```

Element Euclidean Distances (standardized)

```
                                                 Self now
                                                 |        Ideal self
                                                 |        |        Self
as middle aged
                                                 |        |        |
Self as young adult
                                                 |        |        |
|        How you see older people
                                                 |        |        |
|        |        How others see you now
                                                 |        |        |
|        |        |        How others saw you as middle aged
                                                 |        |        |
|        |        |        |        How others saw you as young adult
                                                 |        |        |
|        |        |        |        |        How others see typical
older person
                                                 |        |        |
|        |        |        |        |        |        How others see
typical middle aged adult
                                                 |        |        |
|        |        |        |        |        |        |        How
others see typical young adult
                                                 |        |        |
|        |        |        |        |        |        |        |
                                  Self now     0.00
                                Ideal self     1.03     0.00
                     Self as middle aged     0.81     0.73     0.00
                     Self as young adult     1.15     0.98     0.59
0.00
                How you see older people     0.67     1.38     1.10
1.37     0.00
                  How others see you now     0.84     1.00     0.88
1.29     0.93     0.00
       How others saw you as middle aged     0.84     0.62     0.24
0.56     1.15     0.95     0.00
       How others saw you as young adult     1.12     0.91     0.56
0.28     1.42     1.27     0.55     0.00
     How others see typical older person     0.86     1.52     1.24
1.47     0.34     1.05     1.31     1.53     0.00
How others see typical middle aged adult     0.86     0.58     0.67
0.96     1.02     0.70     0.68     0.93     1.16     0.00
      How others see typical young adult     1.17     1.09     0.92
0.90     1.26     1.06     0.93     0.85     1.25     0.91     0.00
```

Note. Values are standardized around the expected distance between random pairings of elements. For this grid: 9.34.

Descriptive Statistics for Constructs [(DB)]

	Means	Sum of Squares	Percent Total Sum of Squares
Old	3.55	52.73	12.09
Respected	5.00	32.00	7.34
Busy	5.82	19.64	4.50
Experienced	4.82	39.64	9.09
Healthy	5.55	24.73	5.67
Independent	5.45	24.73	5.67
Charitable	5.64	26.55	6.09
Fit	5.64	24.55	5.63
Forgotten	3.73	44.18	10.13
Financially better off	4.73	54.18	12.43
Family Support	5.09	70.91	16.26
Career Focused	4.27	22.18	5.09

Total SS: 436.00
Bias: 0.40
Variability: 0.64

Construct Correlations

	Old	Respected	Busy	Experienced	Healthy	Independent	Charitable	Fit	Forgotten	Financially better off	Family Support	Career Focused
Old	1.00											
Respected	-0.54	1.00										
Busy	-0.37	0.64	1.00									
Experienced	0.72	-0.14	-0.44	1.00								
Healthy	-0.84	0.28	0.41	-0.76	1.00							
Independent	0.20	0.53	0.63	0.32	-0.19	1.00						
Charitable	-0.37	0.58	0.89	-0.36	0.51	0.54	1.00					
Fit	-0.80	0.39	0.60	-0.79	0.86							

```
-0.05     0.49     1.00
             Forgotten     0.57    -0.69    -0.12     0.15    -0.19
-0.05    -0.06    -0.28     1.00
Financially better off     0.59    -0.17    -0.45     0.85    -0.69
0.31    -0.50    -0.66    -0.02     1.00
        Family Support    -0.71     0.61     0.49    -0.66     0.58
-0.03     0.38     0.75    -0.73    -0.51     1.00
        Career Focused    -0.19     0.38     0.51     0.02    -0.03
0.54     0.21     0.30    -0.23     0.28     0.14     1.00
```

Direction cosines between Constructs and Elements

```
                            Self now
                            |        Ideal self
                            |        |        Self as middle aged
                            |        |        |        Self as young
adult
                            |        |        |        |        How
you see older people
                            |        |        |        |        |
How others see you now
                            |        |        |        |        |
|        How others saw you as middle aged
                            |        |        |        |        |
|        |        How others saw you as young adult
                            |        |        |        |        |
|        |        |        How others see typical older person
                            |        |        |        |        |
|        |        |        |        How others see typical middle
aged adult
                            |        |        |        |        |
|        |        |        |        |        How others see typical
young adult
                            |        |        |        |        |
|        |        |        |        |        |
                   Old     0.50    -0.59    -0.32    -0.63     0.88
0.53    -0.54    -0.79     0.82    -0.14    -0.45
               Respected    -0.05     0.74     0.53     0.10    -0.70
0.12     0.60     0.33    -0.85     0.40    -0.22
                   Busy    -0.06     0.52     0.76     0.51    -0.50
-0.37     0.82     0.52    -0.67     0.09    -0.60
             Experienced     0.66    -0.13    -0.44    -0.96     0.66
0.68    -0.57    -0.91     0.62     0.15    -0.33
                 Healthy    -0.43     0.38     0.47     0.75    -0.71
-0.74     0.71     0.81    -0.65    -0.30     0.36
             Independent     0.45     0.47     0.29    -0.26     0.06
0.21     0.41    -0.29    -0.21     0.27    -0.87
               Charitable     0.13     0.41     0.75     0.49    -0.50
-0.36     0.79     0.53    -0.60    -0.26    -0.50
                   Fit    -0.62     0.51     0.64     0.76    -0.77
-0.71     0.78     0.80    -0.73     0.06     0.17
                Forgotten     0.48    -0.70    -0.14    -0.04     0.74
-0.37    -0.23    -0.18     0.70    -0.58    -0.32
Financially better off     0.37     0.12    -0.63    -0.92     0.60
0.64    -0.55    -0.94     0.55     0.43    -0.25
        Family Support    -0.79     0.56     0.64     0.59    -0.92
-0.12     0.69     0.66    -0.87     0.26     0.26
        Career Focused    -0.03     0.71     0.03    -0.10    -0.15
-0.14     0.18    -0.08    -0.24     0.75    -0.50
```

Note. Values reflect construct/element cosines (correlations) in the full component space.

Eigenvalue Decomposition

	Eigenvalue	% Variance	Cumulative %	Scree
PC_ 1	233.68	53.60	53.60	|**********
PC_ 2	84.93	19.48	73.08	|*****
PC_ 3	58.03	13.31	86.39	|****
PC_ 4	24.32	5.58	91.96	|**
PC_ 5	17.77	4.08	96.04	|**
PC_ 6	8.74	2.00	98.04	|*
PC_ 7	4.21	0.97	99.01	|*
PC_ 8	3.20	0.73	99.74	|*
PC_ 9	1.02	0.23	99.98	|*
PC_10	0.10	0.02	100.00	|*

Element Loadings

	PC_1	PC_2	PC_3
Self now	3.48	0.74	-2.90
Ideal self	-3.63	4.79	-0.09
Self as middle aged	-2.42	0.14	-1.65
Self as young adult	-5.17	-3.43	-1.17
How you see older people	7.30	-1.31	-1.30
How others see you now	3.04	3.81	2.43
How others saw you as middle aged	-3.09	0.48	-1.80
How others saw you as young adult	-5.73	-2.68	-0.76
How others see typical older person	8.24	-2.71	0.23
How others see typical middle aged adult	-0.35	3.14	1.32
How others see typical young adult	-1.68	-2.96	5.68

Note. Values for plotting elements in the component space.

Element Eigenvectors

	PC_1	PC_2	PC_3
Self now	0.23	0.08	-0.38
Ideal self	-0.24	0.52	-0.01
Self as middle aged	-0.16	0.02	-0.22
Self as young adult	-0.34	-0.37	-0.15
How you see older people	0.48	-0.14	-0.17
How others see you now	0.20	0.41	0.32
How others saw you as middle aged	-0.20	0.05	-0.24
How others saw you as young adult	-0.37	-0.29	-0.10
How others see typical older person	0.54	-0.29	0.03
How others see typical middle aged adult	-0.02	0.34	0.17
How others see typical young adult	-0.11	-0.32	0.75

Construct Loadings

	PC_1

	PC_2		
			PC_3
Old	6.51	0.14	-1.32
Respected	-3.47	3.81	-0.84
Busy	-2.74	1.21	-3.17
Experienced	5.20	2.89	0.17
Healthy	-4.08	-1.54	-0.40
Independent	0.24	3.48	-3.32
Charitable	-2.94	0.75	-3.72
Fit	-4.40	-0.60	-0.63
Forgotten	3.66	-4.07	-3.56
Financially better off	5.42	4.22	1.44
Family Support	-7.53	1.71	1.89
Career Focused	-0.76	2.81	-1.33

Construct Eigenvectors

	PC_1		
		PC_2	
			PC_3
Old	0.43	0.02	-0.17
Respected	-0.23	0.41	-0.11
Busy	-0.18	0.13	-0.42
Experienced	0.34	0.31	0.02
Healthy	-0.27	-0.17	-0.05
Independent	0.02	0.38	-0.44
Charitable	-0.19	0.08	-0.49
Fit	-0.29	-0.07	-0.08
Forgotten	0.24	-0.44	-0.47
Financially better off	0.35	0.46	0.19
Family Support	-0.49	0.19	0.25
Career Focused	-0.05	0.31	-0.17

Note. Values for orienting (drawing) constructs in component space.

{Graph Created: DB / PC_1 vs. PC_2 (Slater)}
{Graph Created: DB / PC_1 vs. PC_3 (Slater)}
{Graph Created: DB / PC_2 vs. PC_3 (Slater)}

29/04/2008 (11:51:21)

Slater Analyses for DN

Original Grid (DN)

```
                        Self now
                        .       Ideal self
                        .       .       Self as middle aged
                        .       .       .       Self as young adult
                        .       .       .       .       How you see
older people
                        .       .       .       .       .       How
others see you now
                        .       .       .       .       .       .
How others saw you as middle aged
                        .       .       .       .       .       .
.       How others saw you as young adult
                        .       .       .       .       .       .
.       .       How others see typical older person
                        .       .       .       .       .       .
.       .       .       How others see typical middle aged adult
                        .       .       .       .       .       .
.       .       .       .       How others see typical young adult
              Old    7.00    1.00    3.00    1.00    4.00    5.00
3.00    1.00    7.00    4.00    2.00   Young
         Respected    6.00    5.00    2.00    5.00    7.00    6.00
3.00    6.00    4.00    7.00    5.00   Disrespected
     Has potential    6.00    5.00    2.00    6.00    6.00    6.00
3.00    7.00    4.00    6.00    6.00   No potential
   Achieving goals    2.00    2.00    1.00    5.00    4.00    5.00
3.00    7.00    4.00    6.00    6.00   Non achievement
Concern for others    6.00    7.00    2.00    4.00    6.00    6.00
4.00    3.00    6.00    3.00    3.00   Disregard for others
            Stable    4.00    7.00    1.00    5.00    5.00    6.00
2.00    5.00    5.00    4.00    3.00   Unstable
           Wisdom    6.00    7.00    4.00    2.00    6.00    6.00
3.00    2.00    5.00    6.00    4.00   Shallowness
       Experienced    7.00    7.00    4.00    2.00    6.00    6.00
4.00    2.00    5.00    5.00    2.00   Inexperienced
      Less selfish    6.00    7.00    3.00    1.00    5.00    5.00
3.00    3.00    4.00    4.00    2.00   Self absorbed
 Strugglers (cope)    6.00    7.00    5.00    5.00    6.00    6.00
5.00    2.00    5.00    4.00    3.00   Defeatist
          Striving    6.00    7.00    5.00    5.00    5.00    6.00
3.00    6.00    5.00    6.00    6.00   Giving up
          Idealism    7.00    7.00    6.00    7.00    5.00    7.00
4.00    6.00    5.00    4.00    5.00   Lack of ideals
```

Descriptive Statistics for Elements [DN]

Means

	Sum of Squares		Percent Total Sum of Squares
Self now	1.10	35.99	10.68
Ideal self	1.10	53.45	15.86
Self as middle aged	-1.48	48.45	14.37
Self as young adult	-0.65	32.08	9.52
How you see older people	0.77	14.36	4.26
How others see you now	1.18	18.08	5.36
How others saw you as middle aged	-1.32	28.81	8.55
How others saw you as young adult	-0.48	44.63	13.24
How others see typical older person	0.27	18.90	5.61
How others see typical middle aged adult	0.27	16.90	5.01
How others see typical young adult	-0.73	25.45	7.55

Note. Values are based upon deviation matrix in which construct means were removed
from the original grid scores.
Total SS: 337.09

Element Euclidean Distances

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	7.21	0.00									
Self as middle aged	9.95	11.27	0.00								
Self as young adult	10.91	10.82	8.83	0.00							
How you see older people	4.69	6.16	9.85	8.43	0.00						
How others see you now	4.36	6.08	10.39	8.49	3.00	0.00					
How others saw you as middle aged	9.43	10.82	4.47	7.21	7.94	9.06	0.00				
How others saw you as young adult	11.79	11.96	10.77	4.69	9.11	9.17	9.06	0.00			

How others see typical older person	5.29	8.72	8.31	8.77	5.10	4.80	6.56	9.85	0.00		
How others see typical middle aged adult	7.48	9.38	9.43	7.81	4.69	5.57	7.81	6.86	6.32	0.00	
How others see typical young adult	10.49	11.40	8.19	4.58	8.00	8.43	6.71	3.87	8.12	5.29	0.00

Element Euclidean Distances (standardized)

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	0.88	0.00									
Self as middle aged	1.21	1.37	0.00								
Self as young adult	1.33	1.32	1.08	0.00							
How you see older people	0.57	0.75	1.20	1.03	0.00						
How others see you now	0.53	0.74	1.27	1.03	0.37	0.00					
How others saw you as middle aged	1.15	1.32	0.54	0.88	0.97	1.10	0.00				
How others saw you as young adult	1.44	1.46	1.31	0.57	1.11	1.12	1.10	0.00			
How others see typical older person	0.64	1.06	1.01	1.07	0.62	0.58	0.80	1.20	0.00		
How others see typical middle aged adult	0.91	1.14	1.15	0.95	0.57	0.68	0.95	0.83	0.77	0.00	
How others see typical young adult	1.28	1.39	1.00	0.56	0.97	1.03	0.82	0.47	0.99	0.64	0.00

Note. Values are standardized around the expected distance between random pairings of elements. For this grid: 8.21.

Descriptive Statistics for Constructs [(DN)]

	Means	Sum of Squares	Percent Total Sum of Squares
Old	3.45	48.73	14.46
Respected	5.09	24.91	7.39
Has potential	5.18	23.64	7.01
Achieving goals	4.09	36.91	10.95
Concern for others	4.55	28.73	8.52
Stable	4.27	30.18	8.95
Wisdom	4.64	30.55	9.06
Experienced	4.55	36.73	10.90
Less selfish	3.91	30.91	9.17
Strugglers (cope)	4.91	20.91	6.20
Striving	5.45	10.73	3.18
Idealism	5.73	14.18	4.21

Total SS: 337.09
Bias: 0.30
Variability: 0.56

Construct Correlations

	Old	Respected	Has potential	Achieving goals	Concern for others	Stable	Wisdom	Experienced	Less selfish	Strugglers (cope)	Striving	Idealism
Old	1.00											
Respected	0.10	1.00										
Has potential	-0.12	0.90	1.00									
Achieving goals	-0.25	0.56	0.70	1.00								
Concern for others	0.41	0.32	0.19	-0.29	1.00							
Stable	-0.04	0.61	0.62	0.26	0.73	1.00						
Wisdom	0.49	0.38	0.06	-0.35	0.65	0.40	1.00					
Experienced	0.57	0.25	-0.07	-0.56	0.76	0.37	0.90	1.00				
Less selfish	0.40	0.33	0.08	-0.44	0.76							

```
0.50     0.87     0.94     1.00
 Strugglers (cope)     0.33    -0.04    -0.26    -0.72     0.76
0.33     0.66     0.81     0.67     1.00
          Striving    -0.10     0.52     0.57     0.18     0.24
0.59     0.49     0.27     0.46     0.03     1.00
          Idealism    -0.10     0.07     0.25    -0.25     0.38
0.47     0.09     0.20     0.27     0.39     0.52     1.00
```

Direction cosines between Constructs and Elements

```
                         Self now
                         |        Ideal self
                         |        |        Self as middle aged
                         |        |        |        Self as young
adult
                         |        |        |        |        How you
see older people
                         |        |        |        |        |
How others see you now
                         |        |        |        |        |
|        How others saw you as middle aged
                         |        |        |        |        |
|        |        How others saw you as young adult
                         |        |        |        |        |
|        |        |        How others see typical older person
                         |        |        |        |        |
|        |        |        |        |        How others see typical middle
aged adult
                         |        |        |        |        |
|        |        |        |        |        |        How others see typical
young adult
                         |        |        |        |        |
|        |        |        |        |        |
               Old     0.78    -0.10    -0.10    -0.69     0.40
0.50    -0.10    -0.62     0.85     0.14    -0.53
         Respected     0.24     0.16    -0.88    -0.12     0.68
0.60    -0.79     0.24    -0.19     0.65    -0.03
     Has potential     0.03     0.04    -0.86     0.22     0.38
0.46    -0.79     0.53    -0.33     0.47     0.23
   Achieving goals    -0.52    -0.47    -0.60     0.45    -0.08
0.02    -0.34     0.81    -0.25     0.61     0.68
Concern for others     0.66     0.72    -0.55    -0.44     0.76
0.81    -0.45    -0.55     0.46    -0.27    -0.80
            Stable     0.22     0.64    -0.83    -0.02     0.56
0.77    -0.78     0.05     0.04     0.01    -0.37
            Wisdom     0.73     0.67    -0.31    -0.83     0.77
0.72    -0.51    -0.70     0.32     0.26    -0.68
       Experienced     0.86     0.71    -0.22    -0.84     0.78
0.72    -0.35    -0.81     0.42    -0.01    -0.91
      Less selfish     0.78     0.80    -0.33    -0.80     0.74
0.71    -0.48    -0.61     0.27     0.01    -0.82
 Strugglers (cope)     0.65     0.74    -0.02    -0.45     0.60
0.56    -0.12    -0.85     0.31    -0.43    -0.90
          Striving     0.25     0.52    -0.46    -0.17     0.22
0.52    -0.88     0.13    -0.26     0.27    -0.06
          Idealism     0.33     0.50    -0.13     0.20    -0.01
0.45    -0.51    -0.05    -0.17    -0.54    -0.35
```

Note. Values reflect construct/element cosines (correlations) in the full component space.

Eigenvalue Decomposition

	Eigenvalue	% Variance	Cumulative %	Scree
PC_ 1	159.83	47.41	47.41	|**********
PC_ 2	88.46	26.24	73.66	|******
PC_ 3	42.28	12.54	86.20	|****
PC_ 4	19.15	5.68	91.88	|**
PC_ 5	12.40	3.68	95.56	|**
PC_ 6	7.31	2.17	97.73	|*
PC_ 7	4.74	1.41	99.13	|*
PC_ 8	1.94	0.58	99.71	|*
PC_ 9	0.88	0.26	99.97	|*
PC_10	0.10	0.03	100.00	|*

Element Loadings

	PC_1	PC_2	PC_3
Self now	5.25	0.81	-1.50
Ideal self	5.40	-0.83	4.66
Self as middle aged	-2.35	6.21	1.05
Self as young adult	-4.35	-1.47	2.07
How you see older people	3.00	-1.27	-0.55
How others see you now	3.47	-1.93	-0.43
How others saw you as middle aged	-2.50	4.22	-0.15
How others saw you as young adult	-5.13	-3.94	0.38
How others see typical older person	2.02	1.47	-2.38
How others see typical middle aged adult	-0.25	-1.98	-2.48
How others see typical young adult	-4.57	-1.28	-0.66

Note. Values for plotting elements in the component space.

Element Eigenvectors

	PC_1	PC_2	PC_3
Self now	0.42	0.09	-0.23
Ideal self	0.43	-0.09	0.72
Self as middle aged	-0.19	0.66	0.16
Self as young adult	-0.34	-0.16	0.32
How you see older people	0.24	-0.14	-0.08
How others see you now	0.27	-0.21	-0.07
How others saw you as middle aged	-0.20	0.45	-0.02
How others saw you as young adult	-0.41	-0.42	0.06
How others see typical older person	0.16	0.16	-0.37
How others see typical middle aged adult	-0.02	-0.21	-0.38
How others see typical young adult	-0.36	-0.14	-0.10

Construct Loadings

	PC_1	PC_2

			PC_3
Old	4.07	1.68	-5.07
Respected	1.51	-4.26	-1.24
Has potential	0.19	-4.63	-0.50
Achieving goals	-2.98	-4.74	-1.97
Concern for others	4.62	-1.02	0.76
Stable	2.79	-3.97	1.61
Wisdom	4.95	-0.34	-0.47
Experienced	5.91	0.68	-0.14
Less selfish	5.17	-0.38	0.59
Strugglers (cope)	3.74	1.31	1.46
Striving	1.15	-1.96	0.76
Idealism	1.17	-0.73	2.10

Construct Eigenvectors

	PC_1	PC_2	PC_3
Old	0.32	0.18	-0.78
Respected	0.12	-0.45	-0.19
Has potential	0.01	-0.49	-0.08
Achieving goals	-0.24	-0.50	-0.30
Concern for others	0.37	-0.11	0.12
Stable	0.22	-0.42	0.25
Wisdom	0.39	-0.04	-0.07
Experienced	0.47	0.07	-0.02
Less selfish	0.41	-0.04	0.09
Strugglers (cope)	0.30	0.14	0.23
Striving	0.09	-0.21	0.12
Idealism	0.09	-0.08	0.32

Note. Values for orienting (drawing) constructs in component space.

{Graph Created: DN / PC_1 vs. PC_2 (Slater)}
{Graph Created: DN / PC_1 vs. PC_3 (Slater)}
{Graph Created: DN / PC_2 vs. PC_3 (Slater)}

29/04/2008 (12:16:57)

Slater Analyses for EJ

Original Grid (EJ)

```
                                                  Self now
                                                  .       Ideal self
                                                  .       .       Self as
middle aged
                                                  .       .       .       Self
as young adult
                                                  .       .       .       .
How you see older people
                                                  .       .       .       .
.       How others see you now
                                                  .       .       .       .
.       .       How others saw you as middle aged
                                                  .       .       .       .
.       .       .       How others saw you as young adult
                                                  .       .       .       .
.       .       .       .       How others see typical older person
                                                  .       .       .       .
.       .       .       .       .       How others see typical middle
aged adult
                                                  .       .       .       .
.       .       .       .       .       .       How others see
typical young adult
                                    Old     7.00    1.00    3.00    1.00
7.00    7.00    3.00    1.00    7.00    4.00    1.00    Young
                                Respected   7.00    7.00    7.00    7.00
4.00    6.00    7.00    7.00    4.00    7.00    4.00    Looked upon
with disgust
                                  Stable    4.00    7.00    7.00    7.00
4.00    5.00    7.00    7.00    4.00    5.00    4.00    Depressed
                               Less mobile  5.00    1.00    1.00    1.00
7.00    6.00    1.00    1.00    7.00    5.00    6.00    Active
                               Sympathetic  7.00    7.00    7.00    7.00
5.00    7.00    7.00    7.00    7.00    5.00    6.00    Aggrevated
                                  Mature    7.00    7.00    7.00    6.00
5.00    7.00    7.00    7.00    5.00    6.00    3.00    Immature
                                    Busy    5.00    7.00    7.00    7.00
5.00    5.00    7.00    7.00    5.00    5.00    5.00    Lazy
                                 Helpful    7.00    7.00    7.00    7.00
5.00    5.00    7.00    7.00    6.00    6.00    5.00    Unhelpful
Understanding of others' experiences    7.00    7.00    7.00    7.00
4.00    7.00    7.00    7.00    4.00    6.00    3.00    Lack of
experience
                                    Fit     5.00    7.00    7.00    7.00
3.00    3.00    7.00    7.00    3.00    3.00    3.00    Unfit
                               Independent  4.00    7.00    7.00    7.00
3.00    4.00    7.00    7.00    4.00    7.00    7.00    Dependent
                              Morally aware 7.00    7.00    7.00    7.00
4.00    5.00    7.00    7.00    5.00    6.00    6.00    Rude
```

Descriptive Statistics for Elements [EJ]

	Means	Sum of Squares	Percent Total Sum of Squares
Self now	0.42	22.32	6.73
Ideal self	0.42	28.14	8.49
Self as middle aged	0.58	20.87	6.30
Self as young adult	0.33	27.32	8.24
How you see older people	-0.92	54.32	16.39
How others see you now	0.00	28.78	8.68
How others saw you as middle aged	0.58	20.87	6.30
How others saw you as young adult	0.42	28.14	8.49
How others see typical older person	-0.50	42.60	12.85
How others see typical middle aged adult	-0.17	11.50	3.47
How others see typical young adult	-1.17	46.60	14.06

Note. Values are based upon deviation matrix in which construct means were removed
from the original grid scores.
Total SS: 331.45

Element Euclidean Distances

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	8.83	0.00									
Self as middle aged	7.62	2.00	0.00								
Self as young adult	8.89	1.00	2.24	0.00							
How you see older people	6.93	12.49	11.66	12.37	0.00						

```
                  How others see you now     3.87    10.15     9.11
10.20     5.00     0.00
       How others saw you as middle aged     7.62     2.00     0.00
2.24    11.66     9.11     0.00
       How others saw you as young adult     8.83     0.00     2.00
1.00    12.49    10.15     2.00     0.00
     How others see typical older person     5.92    11.70    10.82
11.58     2.65     4.47    10.82    11.70     0.00
How others see typical middle aged adult     5.57     7.55     7.00
7.48     7.00     5.29     7.00     7.55     6.48     0.00
      How others see typical young adult     9.85    10.05    10.25
9.70     7.94     9.17    10.25    10.05     7.35     6.32     0.00
```

Element Euclidean Distances (standardized)

```
                                                 Self now
                                                 |        Ideal self
                                                 |        |        Self
as middle aged
                                                 |        |        |
Self as young adult
                                                 |        |        |
|        How you see older people
                                                 |        |        |
|        |        How others see you now
                                                 |        |        |
|        |        |        How others saw you as middle aged
                                                 |        |        |
|        |        |        |        How others saw you as young adult
                                                 |        |        |
|        |        |        |        |        How others see typical
older person
                                                 |        |        |
|        |        |        |        |        |        How others see
typical middle aged adult
                                                 |        |        |
|        |        |        |        |        |        |        How
others see typical young adult
                                                 |        |        |
|        |        |        |        |        |        |        |
                                Self now     0.00
                             Ideal self     1.08     0.00
                   Self as middle aged     0.94     0.25     0.00
                   Self as young adult     1.09     0.12     0.27
0.00
               How you see older people     0.85     1.53     1.43
1.52     0.00
                  How others see you now     0.48     1.25     1.12
1.25     0.61     0.00
       How others saw you as middle aged     0.94     0.25     0.00
0.27     1.43     1.12     0.00
       How others saw you as young adult     1.08     0.00     0.25
0.12     1.53     1.25     0.25     0.00
     How others see typical older person     0.73     1.44     1.33
1.42     0.32     0.55     1.33     1.44     0.00
How others see typical middle aged adult     0.68     0.93     0.86
0.92     0.86     0.65     0.86     0.93     0.80     0.00
      How others see typical young adult     1.21     1.23     1.26
1.19     0.97     1.13     1.26     1.23     0.90     0.78     0.00
```

Note. Values are standardized around the expected distance between random pairings of elements. For this grid: 8.14.

Descriptive Statistics for Constructs [(EJ)]

	Means	Sum of Squares	Percent
			Total Sum of Squares
Old	3.82	73.64	22.22
Respected	6.09	18.91	5.70
Stable	5.55	20.73	6.25
Less mobile	3.73	72.18	21.78
Sympathetic	6.55	6.73	2.03
Mature	6.09	16.91	5.10
Busy	5.91	10.91	3.29
Helpful	6.27	8.18	2.47
Understanding of others' experiences	6.00	24.00	7.24
Fit	5.00	40.00	12.07
Independent	5.82	27.64	8.34
Morally aware	6.18	11.64	3.51

Total SS: 331.45
Bias: 0.61
Variability: 0.55

Construct Correlations

											Old
											Old
											Respected
											Stable
											Less mobile
											Sympathetic
											Mature
											Busy
											Helpful
											Understanding of others' experiences
											Fit
											Independent
											Morally aware
Old	1.00										

```
                          Respected    -0.37     1.00
                             Stable    -0.69     0.73     1.00
                         Less mobile     0.73    -0.78    -0.97
1.00
                         Sympathetic    -0.18     0.39     0.49    -
0.52     1.00
                              Mature     0.03     0.83     0.61    -
0.59     0.51     1.00
                                Busy    -0.71     0.63     0.97    -
0.97     0.53     0.52     1.00
                              Helpful    -0.43     0.78     0.72    -
0.83     0.59     0.66     0.77     1.00
Understanding of others' experiences    -0.19     0.94     0.72    -
0.72     0.55     0.94     0.62     0.71     1.00
                                 Fit    -0.63     0.73     0.90    -
0.97     0.61     0.62     0.96     0.88     0.71     1.00
                         Independent    -0.92     0.53     0.71    -
0.75     0.15     0.10     0.68     0.50     0.31     0.60     1.00
                      Morally aware    -0.67     0.80     0.70    -
0.84     0.55     0.49     0.73     0.87     0.66     0.83     0.75
1.00
```

Direction cosines between Constructs and Elements

```
                                          Self now
                                          |        Ideal self
                                          |        |        Self as
middle aged
                                          |        |        |
Self as young adult
                                          |        |        |
|        How you see older people
                                          |        |        |
|        |        How others see you now
                                          |        |        |
|        |        |        How others saw you as middle aged
                                          |        |        |
|        |        |        |        How others saw you as young adult
                                          |        |        |
|        |        |        |        |        How others see typical
older person
                                          |        |        |
|        |        |        |        |        |        How others see
typical middle aged adult
                                          |        |        |
|        |        |        |        |        |        |        How
others see typical young adult
                                          |        |        |
|        |        |        |        |        |        |        |
                                   Old     0.84    -0.84    -0.62    -
0.87     0.77     0.91    -0.62    -0.84     0.79     0.22    -0.20
                             Respected     0.03     0.73     0.80
0.68    -0.82    -0.35     0.80     0.73    -0.83    -0.12    -0.72
                                Stable    -0.52     0.94     0.95
0.92    -0.87    -0.66     0.95     0.94    -0.91    -0.49    -0.52
                            Less mobile     0.45    -0.98    -0.98    -
0.96     0.93     0.76    -0.98    -0.98     0.94     0.52     0.50
                            Sympathetic     0.10     0.48     0.56
0.46    -0.56    -0.18     0.56     0.48    -0.33    -0.75    -0.49
                                Mature     0.31     0.50     0.67
```

0.39	-0.53	0.03	0.67	0.50	-0.55	-0.31	-0.96
				Busy	-0.52	0.95	0.95
0.94	-0.84	-0.75	0.95	0.95	-0.86	-0.65	-0.46
				Helpful	-0.01	0.77	0.86
0.75	-0.80	-0.61	0.86	0.77	-0.72	-0.50	-0.63
Understanding of others' experiences					0.16	0.65	0.77
0.58	-0.71	-0.14	0.77	0.65	-0.72	-0.30	-0.87
				Fit	-0.31	0.93	0.96
0.91	-0.86	-0.72	0.96	0.93	-0.86	-0.68	-0.57
				Independent	-0.74	0.81	0.69
0.83	-0.85	-0.85	0.69	0.81	-0.83	-0.02	0.08
				Morally aware	-0.20	0.84	0.83
0.84	-0.94	-0.73	0.83	0.84	-0.84	-0.34	-0.36

Note. Values reflect construct/element cosines (correlations) in the full component space.

Eigenvalue Decomposition

	Eigenvalue	% Variance	Cumulative %	Scree
PC_ 1	244.01	73.62	73.62	|**********
PC_ 2	61.14	18.45	92.07	|*****
PC_ 3	12.50	3.77	95.84	|**
PC_ 4	6.67	2.01	97.85	|*
PC_ 5	3.69	1.11	98.96	|*
PC_ 6	2.43	0.73	99.70	|*
PC_ 7	0.61	0.18	99.88	|*
PC_ 8	0.40	0.12	100.00	|*
PC_ 9	0.00	0.00	100.00	|*
PC_10	0.00	0.00	100.00	|*

Element Loadings

	PC_1	PC_2	PC_3
Self now	-2.34	-3.59	0.47
Ideal self	5.26	0.32	-0.22
Self as middle aged	4.38	-0.98	-0.42
Self as young adult	5.12	0.74	-0.38
How you see older people	-7.08	0.03	-1.29
How others see you now	-4.27	-2.69	0.80
How others saw you as middle aged	4.38	-0.98	-0.42
How others saw you as young adult	5.26	0.32	-0.22
How others see typical older person	-6.30	-0.07	-1.30
How others see typical middle aged adult	-1.55	0.77	2.77
How others see typical young adult	-2.85	6.14	0.20

Note. Values for plotting elements in the component space.

Element Eigenvectors

	PC_1	PC_2	PC_3
Self now	-0.15	-0.46	0.13

Ideal self	0.34	0.04	-0.06
Self as middle aged	0.28	-0.13	-0.12
Self as young adult	0.33	0.09	-0.11
How you see older people	-0.45	0.00	-0.36
How others see you now	-0.27	-0.34	0.23
How others saw you as middle aged	0.28	-0.13	-0.12
How others saw you as young adult	0.34	0.04	-0.06
How others see typical older person	-0.40	-0.01	-0.37
How others see typical middle aged adult	-0.10	0.10	0.78
How others see typical young adult	-0.18	0.79	0.06

Construct Loadings

	PC_1	PC_2	PC_3
Old	-6.86	-5.06	-0.36
Respected	3.39	-2.00	1.80
Stable	4.31	-0.47	-0.40
Less mobile	-8.42	0.73	0.69
Sympathetic	1.29	-0.99	-0.89
Mature	2.21	-3.32	0.56
Busy	3.12	-0.15	-0.94
Helpful	2.32	-0.98	-0.25
Understanding of others' experiences	3.40	-3.22	1.18
Fit	5.95	-1.22	-1.61
Independent	4.29	2.42	1.48
Morally aware	3.00	-0.19	0.54

Construct Eigenvectors

	PC_1	PC_2	PC_3
Old	-0.44	-0.65	-0.10
Respected	0.22	-0.26	0.51
Stable	0.28	-0.06	-0.11
Less mobile	-0.54	0.09	0.20
Sympathetic	0.08	-0.13	-0.25
Mature	0.14	-0.43	0.16
Busy	0.20	-0.02	-0.27
Helpful	0.15	-0.13	-0.07
Understanding of others' experiences	0.22	-0.41	0.33
Fit	0.38	-0.16	-0.45
Independent	0.27	0.31	0.42
Morally aware	0.19	-0.02	0.15

Note. Values for orienting (drawing) constructs in component space.

{Graph Created: EJ / PC_1 vs. PC_2 (Slater)}
{Graph Created: EJ / PC_1 vs. PC_3 (Slater)}
{Graph Created: EJ / PC_2 vs. PC_3 (Slater)}

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Slater Analyses for JC

Original Grid (JC)

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult	
Old	4.00	4.00	3.00	2.00	7.00	5.00	3.00	2.00	7.00	4.00	1.00	Young
Respected	4.00	7.00	7.00	7.00	5.00	7.00	7.00	7.00	6.00	5.00	4.00	Rude to
Agile	5.00	7.00	7.00	7.00	4.00	5.00	7.00	7.00	4.00	7.00	7.00	Tired
Hard worker	5.00	7.00	7.00	7.00	5.00	5.00	7.00	7.00	4.00	5.00	4.00	Lazy
Sociable	7.00	7.00	7.00	7.00	5.00	7.00	7.00	7.00	5.00	5.00	4.00	Ignorant
Friendly	7.00	7.00	7.00	7.00	6.00	7.00	7.00	7.00	5.00	6.00	6.00	Nasty
Joker	7.00	7.00	7.00	7.00	4.00	7.00	7.00	7.00	4.00	3.00	4.00	Awkward
Helpful	6.00	7.00	7.00	7.00	4.00	7.00	7.00	7.00	4.00	5.00	3.00	Lazy
Happy	7.00	7.00	7.00	7.00	4.00	7.00	7.00	47.00	4.00	6.00	6.00	Miserable
Two-faced	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00	1.00	3.00	Reliable
Content	7.00	7.00	7.00	4.00	5.00	7.00	7.00	7.00	4.00	5.00	6.00	Discontent
Slow	4.00	2.00	3.00	3.00	4.00	4.00	3.00	3.00	4.00	3.00	1.00	Quick

Descriptive Statistics for Elements [JC]

Means

	Sum of Squares		Percent Total Sum of Squares
Self now	-0.20	18.48	1.08
Ideal self	0.30	17.93	1.05
Self as middle aged	0.30	17.39	1.02
Self as young adult	-0.03	23.02	1.34
How you see older people	-0.95	61.48	3.59
How others see you now	0.22	18.21	1.06
How others saw you as middle aged	0.30	17.39	1.02
How others saw you as young adult	3.55	1387.30	81.00
How others see typical older person	-1.11	68.02	3.97
How others see typical middle aged adult	-0.95	29.12	1.70
How others see typical young adult	-1.45	54.39	3.18

Note. Values are based upon deviation matrix in which construct means were removed
from the original grid scores.
Total SS: 1712.73

Element Euclidean Distances

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	4.69	0.00									
Self as middle aged	4.47	1.41	0.00								
Self as young adult	5.66	3.74	3.16	0.00							
How you see older people	6.56	8.19	8.43	8.77	0.00						
How others see you now	3.32	3.61	3.61	5.20	6.78	0.00					
How others saw you as middle aged	4.47	1.41	0.00	3.16	8.43	3.61	0.00				
How others saw you as young adult	40.29	40.06	40.01	40.11	43.82	40.22	40.01	0.00			

How others see typical older person	7.42	8.77	9.00	9.00	2.00	7.21	9.00	43.93	0.00
How others see typical middle aged adult	5.74	6.24	6.24	6.24	5.10	6.32	6.24	41.50	5.48	0.00
How others see typical young adult	7.55	8.31	8.19	8.19	8.00	8.94	8.19	41.76	8.37	5.10	0.00

Element Euclidean Distances (standardized)

	Self now									
	Ideal self									
	Self as middle aged									
	Self as young adult									
How you see older people										
How others see you now										
How others saw you as middle aged										
How others saw you as young adult										
How others see typical older person										
How others see typical middle aged adult										
How others see typical young adult										
Self now	0.00									
Ideal self	0.25	0.00								
Self as middle aged	0.24	0.08	0.00							
Self as young adult	0.31	0.20	0.17	0.00						
How you see older people	0.35	0.44	0.46	0.47	0.00					
How others see you now	0.18	0.19	0.19	0.28	0.37	0.00				
How others saw you as middle aged	0.24	0.08	0.00	0.17	0.46	0.19	0.00			
How others saw you as young adult	2.18	2.16	2.16	2.17	2.37	2.17	2.16	0.00		
How others see typical older person	0.40	0.47	0.49	0.49	0.11	0.39	0.49	2.37	0.00	
How others see typical middle aged adult	0.31	0.34	0.34	0.34	0.28	0.34	0.34	2.24	0.30	0.00
How others see typical young adult	0.41	0.45	0.44	0.44	0.43	0.48	0.44	2.26	0.45	0.28	0.00

Note. Values are standardized around the expected distance between random pairings of elements. For this grid: 18.51.

Descriptive Statistics for Constructs [(JC)]

	Means	Sum of Squares	Percent Total Sum of Squares
Old	3.82	37.64	2.20
Respected	6.00	16.00	0.93
Agile	6.09	16.91	0.99
Hard worker	5.73	16.18	0.94
Sociable	6.18	13.64	0.80
Friendly	6.55	4.73	0.28
Joker	5.82	27.64	1.61
Helpful	5.82	23.64	1.38
Happy	9.91	1526.91	89.15
Two-faced	1.36	4.55	0.27
Content	6.00	16.00	0.93
Slow	3.09	8.91	0.52

Total SS: 1712.73
Bias: 0.84
Variability: 1.26

Construct Correlations

	Old	Respected	Agile	Hard worker	Sociable	Friendly	Joker	Helpful	Happy	Two-faced	Content	Slow
Old	1.00											
Respected	-0.08	1.00										
Agile	-0.86	0.30	1.00									
Hard worker	-0.43	0.75	0.62	1.00								
Sociable	-0.20	0.68	0.25	0.78	1.00							
Friendly	-0.52	0.46	0.50	0.76	0.86	1.00						
Joker	-0.35	0.62	0.29	0.73	0.95	0.88	1.00					
Helpful	-0.28	0.77	0.41	0.84	0.97	0.86	0.89	1.00				
Happy	-0.37	0.29	0.29	0.39	0.30	0.30	0.31	0.33	1.00			
Two-faced	0.06	-0.59	-0.27	-0.69	-0.85	-0.69	-0.65	-0.89	-0.24	1.00		

Content	-0.33	0.19	0.30	0.37	0.54	0.69	0.62	0.51	0.32	-0.35	1.00	
Slow	0.72	0.08	-0.74	-0.14	0.26	-0.08	0.08	0.15	-0.06	-0.37	-0.17	1.00

Direction cosines between Constructs and Elements

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Old	0.31	0.02	-0.12	-0.24	0.75	0.53	-0.12	-0.37	0.75	0.30	-0.19
Respected	-0.49	0.33	0.32	0.28	-0.48	0.17	0.32	0.30	-0.39	-0.55	-0.70
Agile	-0.47	0.22	0.28	0.31	-0.70	-0.48	0.28	0.29	-0.71	-0.16	0.07
Hard worker	-0.37	0.37	0.39	0.34	-0.67	-0.13	0.39	0.39	-0.71	-0.59	-0.61
Sociable	0.06	0.37	0.42	0.27	-0.58	0.30	0.42	0.30	-0.60	-0.72	-0.77
Friendly	0.07	0.37	0.45	0.26	-0.67	0.12	0.45	0.30	-0.76	-0.64	-0.48
Joker	0.07	0.37	0.42	0.26	-0.63	0.25	0.42	0.31	-0.65	-0.80	-0.62
Helpful	-0.10	0.40	0.44	0.31	-0.64	0.23	0.44	0.33	-0.65	-0.66	-0.76
Happy	-0.68	-0.63	-0.63	-0.56	-0.81	-0.67	-0.63	1.00	-0.77	-0.76	-0.55
Two-faced	-0.01	-0.31	-0.35	-0.24	0.45	-0.25	-0.35	-0.24	0.46	0.41	0.77
Content	0.12	0.24	0.24	-0.31	-0.52	0.12	0.24	0.32	-0.63	-0.57	-0.28
Slow	0.35	-0.17	-0.12	-0.13	0.34	0.50	-0.12	-0.06	0.35	-0.09	-0.56

Note. Values reflect construct/element cosines (correlations) in the full component space.

Eigenvalue Decomposition

Eigenvalue	% Variance	Cumulative %	Scree

PC_ 1	1547.12	90.33	90.33	
|******************				
PC_ 2	87.48	5.11	95.44	|**
PC_ 3	47.16	2.75	98.19	|**
PC_ 4	15.52	0.91	99.10	|*
PC_ 5	6.95	0.41	99.50	|*
PC_ 6	4.80	0.28	99.78	|*
PC_ 7	2.49	0.15	99.93	|*
PC_ 8	0.83	0.05	99.98	|*
PC_ 9	0.38	0.02	100.00	|*
PC_10	0.00	0.00	100.00	|*

Element Loadings

	PC_1	PC_2	PC_3
Self now	-2.90	-0.50	-0.89
Ideal self	-2.61	-2.98	-0.08
Self as middle aged	-2.55	-3.22	0.25
Self as young adult	-2.59	-2.83	0.92
How you see older people	-6.44	3.79	-2.16
How others see you now	-2.83	-1.49	-2.39
How others saw you as middle aged	-2.55	-3.22	0.25
How others saw you as young adult	37.23	0.98	-0.21
How others see typical older person	-6.50	4.28	-2.35
How others see typical middle aged adult	-4.16	2.32	1.43
How others see typical young adult	-4.10	2.88	5.24

Note. Values for plotting elements in the component space.

Element Eigenvectors

	PC_1	PC_2	PC_3
Self now	-0.07	-0.05	-0.13
Ideal self	-0.07	-0.32	-0.01
Self as middle aged	-0.06	-0.34	0.04
Self as young adult	-0.07	-0.30	0.13
How you see older people	-0.16	0.41	-0.31
How others see you now	-0.07	-0.16	-0.35
How others saw you as middle aged	-0.06	-0.34	0.04
How others saw you as young adult	0.95	0.10	-0.03
How others see typical older person	-0.17	0.46	-0.34
How others see typical middle aged adult	-0.11	0.25	0.21
How others see typical young adult	-0.10	0.31	0.76

Construct Loadings

	PC_1	PC_2	PC_3
Old	-2.38	2.59	-4.89
Respected	1.24	-2.53	-1.34

Agile	1.28	-2.16	2.93
Hard worker	1.64	-3.18	-0.09
Sociable	1.18	-3.15	-1.39
Friendly	0.70	-1.88	0.03
Joker	1.72	-4.50	-1.15
Helpful	1.69	-4.26	-1.37
Happy	39.06	1.05	-0.20
Two-faced	-0.54	1.48	0.87
Content	1.34	-2.08	0.07
Slow	-0.20	0.35	-2.65

Construct Eigenvectors

	PC_1	PC_2	PC_3
Old	-0.06	0.28	-0.71
Respected	0.03	-0.27	-0.20
Agile	0.03	-0.23	0.43
Hard worker	0.04	-0.34	-0.01
Sociable	0.03	-0.34	-0.20
Friendly	0.02	-0.20	0.00
Joker	0.04	-0.48	-0.17
Helpful	0.04	-0.46	-0.20
Happy	0.99	0.11	-0.03
Two-faced	-0.01	0.16	0.13
Content	0.03	-0.22	0.01
Slow	-0.01	0.04	-0.39

Note. Values for orienting (drawing) constructs in component space.

{Graph Created: JC / PC_1 vs. PC_2 (Slater)}
{Graph Created: JC / PC_1 vs. PC_3 (Slater)}
{Graph Created: JC / PC_2 vs. PC_3 (Slater)}

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Slater Analyses for JD

Original Grid (JD)

```
                    Self now
                    .       Ideal self
                    .       .       Self as middle aged
                    .       .       .       Self as young adult
                    .       .       .       .       How you see older
people
                    .       .       .       .       .       How
others see you now
                    .       .       .       .       .       .
How others saw you as middle aged
                    .       .       .       .       .       .       .
How others saw you as young adult
                    .       .       .       .       .       .       .
.       How others see typical older person
                    .       .       .       .       .       .       .
.       .       How others see typical middle aged adult
                    .       .       .       .       .       .       .
.       .       .       How others see typical young adult
           Old    4.00    4.00    4.00    3.00    7.00    3.00
4.00    2.00    5.00    4.00    1.00   Young
      Respected    7.00    7.00    7.00    7.00    5.00    7.00
7.00    7.00    4.00    6.00    4.00   Disresepected
      Energetic    5.00    7.00    7.00    7.00    4.00    5.00
7.00    7.00    4.00    5.00    6.00   Less energetic
      Dependent    4.00    1.00    1.00    1.00    4.00    3.00
1.00    1.00    4.00    1.00    1.00   Independent
    Experienced    7.00    7.00    7.00    6.00    6.00    7.00
7.00    7.00    6.00    6.00    2.00   Lack of experience
Memory problems    3.00    1.00    1.00    1.00    4.00    1.00
1.00    1.00    4.00    2.00    1.00   Good memory
    Less active    7.00    1.00    3.00    1.00    7.00    3.00
1.00    1.00    4.00    3.00    1.00   Active
          Happy    7.00    7.00    7.00    7.00    2.00    7.00
7.00    7.00    4.00    4.00    6.00   Sad
    Less mobile    7.00    1.00    1.00    1.00    4.00    3.00
1.00    1.00    4.00    4.00    1.00   Mobile
    Tire easily    4.00    1.00    2.00    1.00    5.00    4.00
1.00    1.00    4.00    3.00    1.00   Good stamina
         Caring    7.00    7.00    7.00    7.00    6.00    7.00
7.00    7.00    6.00    5.00    2.00   Not caring
        Skilled    6.00    7.00    7.00    7.00    5.00    6.00
7.00    7.00    6.00    6.00    4.00   Less skilled
```

Descriptive Statistics for Elements [JD]

Means

	Sum of Squares		Percent Total Sum of Squares
Self now	1.34	48.34	16.37
Ideal self	-0.08	15.16	5.13
Self as middle aged	0.17	9.61	3.26
Self as young adult	-0.24	14.98	5.07
How you see older people	0.59	66.25	22.44
How others see you now	0.34	8.70	2.95
How others saw you as middle aged	-0.08	15.16	5.13
How others saw you as young adult	-0.24	18.07	6.12
How others see typical older person	0.26	27.88	9.44
How others see typical middle aged adult	-0.24	9.34	3.16
How others see typical young adult	-1.83	61.79	20.93

Note. Values are based upon deviation matrix in which construct means were removed
from the original grid scores.
Total SS: 295.27

Element Euclidean Distances

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	9.95	0.00									
Self as middle aged	8.60	2.24	0.00								
Self as young adult	10.05	1.41	2.65	0.00							
How you see older people	7.28	11.49	10.25	11.75	0.00						
How others see you now	6.16	5.20	4.24	5.20	8.77	0.00					
How others saw you as middle aged	9.95	0.00	2.24	1.41	11.49	5.20	0.00				
How others saw you as young adult	10.15	2.00	3.00	1.41	12.17	5.20	2.00	0.00			

How others see typical older person	6.40	8.72	7.94	8.83	4.47	6.08	8.72	9.17	0.00		
How others see typical middle aged adult	7.14	6.16	5.57	6.16	7.07	4.80	6.16	6.48	4.69	0.00	
How others see typical young adult	12.96	8.89	9.17	8.06	13.00	9.49	8.89	8.43	10.25	8.06	0.00

Element Euclidean Distances (standardized)

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	1.29	0.00									
Self as middle aged	1.12	0.29	0.00								
Self as young adult	1.31	0.18	0.34	0.00							
How you see older people	0.95	1.50	1.33	1.53	0.00						
How others see you now	0.80	0.68	0.55	0.68	1.14	0.00					
How others saw you as middle aged	1.29	0.00	0.29	0.18	1.50	0.68	0.00				
How others saw you as young adult	1.32	0.26	0.39	0.18	1.58	0.68	0.26	0.00			
How others see typical older person	0.83	1.13	1.03	1.15	0.58	0.79	1.13	1.19	0.00		
How others see typical middle aged adult	0.93	0.80	0.72	0.80	0.92	0.62	0.80	0.84	0.61	0.00	
How others see typical young adult	1.69	1.16	1.19	1.05	1.69	1.23	1.16	1.10	1.33	1.05	0.00

Note. Values are standardized around the expected distance between random pairings of elements. For this grid: 7.68.

Descriptive Statistics for Constructs [(JD)]

	Means	Sum of Squares	Percent Total Sum of Squares
Old	3.73	24.18	8.19
Respected	6.18	15.64	5.30
Energetic	5.82	15.64	5.30
Dependent	2.00	20.00	6.77
Experienced	6.18	21.64	7.33
Memory problems	1.82	15.64	5.30
Less active	2.91	52.91	17.92
Happy	5.91	30.91	10.47
Less mobile	2.55	40.73	13.79
Tire easily	2.45	24.73	8.37
Caring	6.18	23.64	8.00
Skilled	6.18	9.64	3.26

Total SS: 295.27
Bias: 0.61
Variability: 0.52

Construct Correlations

	Old	Respected	Energetic	Dependent	Experienced	Memory problems	Less active	Happy	Less mobile	Tire easily	Caring	Skilled
Old	1.00											
Respected	-0.13	1.00										
Energetic	-0.54	0.60	1.00									
Dependent	0.59	-0.34	-0.85	1.00								
Experienced	0.42	0.74	0.13	0.14	1.00							
Memory problems	0.74	-0.55	-0.85	0.85	0.02	1.00						
Less active	0.69	-0.20	-0.77	0.86	0.18	0.83	1.00					
Happy	-0.67	0.69	0.77	-0.48	0.24	-0.78	-0.55	1.00				
Less mobile	0.47	-0.16	-0.79	0.81	0.17	0.76	0.87	-0.41	1.00			
Tire easily	0.67	-0.30	-0.92	0.90	0.18	0.81	0.90	-0.63	0.83	1.00		

Caring	0.36	0.76	0.23	0.14	0.96	-0.03	0.12	0.34	0.06	0.09	1.00
Skilled	0.04	0.79	0.60	-0.36	0.81	-0.38	-0.35	0.53	-0.31	-0.38	0.84	1.00

Direction cosines between Constructs and Elements

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Old	0.41	-0.36	-0.16	-0.60	0.83	-0.07	-0.36	-0.67	0.64	0.29	-0.66
Respected	0.08	0.62	0.75	0.54	-0.50	0.43	0.62	0.58	-0.69	-0.46	-0.55
Energetic	-0.60	0.92	0.84	0.95	-0.86	-0.22	0.92	0.90	-0.92	-0.60	0.15
Dependent	0.79	-0.79	-0.61	-0.84	0.79	0.40	-0.79	-0.80	0.84	0.14	-0.41
Experienced	0.33	0.32	0.48	0.09	0.00	0.46	0.32	0.19	-0.10	-0.28	-0.94
Memory problems	0.62	-0.79	-0.68	-0.87	0.91	-0.09	-0.79	-0.86	0.95	0.46	-0.33
Less active	0.87	-0.81	-0.45	-0.89	0.87	0.23	-0.81	-0.85	0.70	0.34	-0.47
Happy	-0.15	0.67	0.64	0.74	-0.87	0.34	0.67	0.77	-0.80	-0.74	0.03
Less mobile	0.93	-0.80	-0.63	-0.84	0.67	0.33	-0.80	-0.77	0.67	0.47	-0.41
Tire easily	0.75	-0.84	-0.58	-0.92	0.87	0.42	-0.84	-0.86	0.81	0.43	-0.45
Caring	0.27	0.39	0.55	0.22	-0.07	0.45	0.39	0.27	-0.16	-0.49	-0.90
Skilled	-0.14	0.75	0.74	0.61	-0.47	0.14	0.75	0.64	-0.47	-0.47	-0.62

Note. Values reflect construct/element cosines (correlations) in the full component space.

Eigenvalue Decomposition

Eigenvalue	% Variance	Cumulative %	Scree

PC_ 1	177.85	60.23	60.23	|**********
PC_ 2	71.16	24.10	84.33	|******
PC_ 3	25.71	8.71	93.04	|***
PC_ 4	7.21	2.44	95.48	|*
PC_ 5	6.06	2.05	97.53	|*
PC_ 6	4.62	1.56	99.10	|*
PC_ 7	1.47	0.50	99.60	|*
PC_ 8	0.80	0.27	99.87	|*
PC_ 9	0.40	0.13	100.00	|*
PC_10	0.00	0.00	100.00	|*

Element Loadings

	PC_1	PC_2	PC_3
Self now	5.38	-2.50	-3.47
Ideal self	-3.41	-1.48	0.99
Self as middle aged	-2.02	-1.78	0.58
Self as young adult	-3.71	-0.77	0.30
How you see older people	7.64	0.97	2.34
How others see you now	0.51	-1.45	-1.47
How others saw you as middle aged	-3.41	-1.48	0.99
How others saw you as young adult	-3.95	-1.13	-0.11
How others see typical older person	4.61	1.28	1.00
How others see typical middle aged adult	1.50	1.35	0.41
How others see typical young adult	-3.17	7.00	-1.56

Note. Values for plotting elements in the component space.

Element Eigenvectors

	PC_1	PC_2	PC_3
Self now	0.40	-0.30	-0.69
Ideal self	-0.26	-0.18	0.20
Self as middle aged	-0.15	-0.21	0.11
Self as young adult	-0.28	-0.09	0.06
How you see older people	0.57	0.12	0.46
How others see you now	0.04	-0.17	-0.29
How others saw you as middle aged	-0.26	-0.18	0.20
How others saw you as young adult	-0.30	-0.13	-0.02
How others see typical older person	0.35	0.15	0.20
How others see typical middle aged adult	0.11	0.16	0.08
How others see typical young adult	-0.24	0.83	-0.31

Construct Loadings

	PC_1	PC_2	PC_3
Old	3.61	-1.46	2.78
Respected	-1.58	-3.34	-0.68
Energetic	-3.63	-1.01	0.12

Dependent	4.05	-0.43	-0.66
Experienced	0.43	-4.48	0.74
Memory problems	3.68	0.37	0.69
Less active	6.90	-1.08	-0.94
Happy	-4.00	-2.34	-2.84
Less mobile	5.59	-0.84	-2.47
Tire easily	4.73	-0.38	-0.21
Caring	0.04	-4.73	0.71
Skilled	-1.33	-2.56	0.69

Construct Eigenvectors

	PC_1	PC_2	PC_3
Old	0.27	-0.17	0.55
Respected	-0.12	-0.40	-0.13
Energetic	-0.27	-0.12	0.02
Dependent	0.30	-0.05	-0.13
Experienced	0.03	-0.53	0.14
Memory problems	0.28	0.04	0.14
Less active	0.52	-0.13	-0.19
Happy	-0.30	-0.28	-0.56
Less mobile	0.42	-0.10	-0.49
Tire easily	0.35	-0.05	-0.04
Caring	0.00	-0.56	0.14
Skilled	-0.10	-0.30	0.14

Note. Values for orienting (drawing) constructs in component space.

{Graph Created: JD / PC_1 vs. PC_2 (Slater)}
{Graph Created: JD / PC_1 vs. PC_3 (Slater)}
{Graph Created: JD / PC_2 vs. PC_3 (Slater)}

29/04/2008 (12:06:18)

Slater Analyses for JS

Original Grid (JS)

```
                                Self now
                                .       Ideal self
                                .       .       Self as middle aged
                                .       .       .       Self as young
adult
                                .       .       .       .       How you
see older people
                                .       .       .       .       .
How others see you now
                                .       .       .       .       .
.       How others saw you as middle aded
                                .       .       .       .       .
.       .       How others saw you as young adult
                                .       .       .       .       .
.       .       .       How others see typical older person
                                .       .       .       .       .
.       .       .       .       How others see typical middle aged
adult
                                .       .       .       .       .
.       .       .       .       .       How others see typical young
adult
                      Old    4.00    4.00    3.00    2.00    5.00
4.00    3.00    2.00    6.00    5.00    3.00   Young
                Respected    6.00    7.00    6.00    6.00    4.00
7.00    7.00    7.00    4.00    5.00    4.00   Disrespected
  Open to new experiences    7.00    7.00    7.00    7.00    5.00
7.00    7.00    7.00    4.00    5.00    5.00   Negative
        Lots of interests    7.00    7.00    7.00    7.00    4.00
7.00    7.00    7.00    5.00    5.00    5.00   Being miserable
Take people at face vaule    7.00    7.00    7.00    7.00    7.00
7.00    7.00    7.00    4.00    4.00    5.00   Pretending they are
different people
            Hard working    7.00    7.00    7.00    7.00    5.00
7.00    7.00    7.00    4.00    4.00    3.00   Lazy
        Physically active    5.00    7.00    7.00    7.00    5.00
5.00    7.00    7.00    5.00    6.00    5.00   Inactive
             Interesting    7.00    7.00    7.00    7.00    5.00
7.00    7.00    7.00    5.00    5.00    4.00   Dull
               Helpful    7.00    7.00    7.00    7.00    6.00
7.00    7.00    7.00    5.00    5.00    5.00   Unhelpful
            Knowledgable    6.00    7.00    6.00    6.00    6.00
6.00    6.00    6.00    5.00    5.00    4.00   Ignorant
      Has good discipline    7.00    7.00    7.00    7.00    6.00
7.00    7.00    7.00    7.00    6.00    5.00   Indisciplined
                Confident    7.00    7.00    6.00    6.00    5.00
7.00    6.00    6.00    6.00    6.00    5.00   Insecure
```

Descriptive Statistics for Elements [JS]

	Means	Sum of Squares	Percent Total Sum of Squares
Self now	0.50	6.31	4.25
Ideal self	0.83	9.40	6.33
Self as middle aged	0.50	5.95	4.01
Self as young adult	0.42	8.40	5.66
How you see older people	-0.67	16.31	10.98
How others see you now	0.58	7.86	5.29
How others saw you as middle aded	0.58	7.50	5.05
How others saw you as young adult	0.50	9.95	6.70
How others see typical older person	-0.92	28.04	18.88
How others see typical middle aged adult	-0.83	17.95	12.08
How others see typical young adult	-1.50	30.86	20.77

Note. Values are based upon deviation matrix in which construct means were removed
from the original grid scores.
Total SS: 148.55

Element Euclidean Distances

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aded	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	2.45	0.00									
Self as middle aged	2.45	2.00	0.00								
Self as young adult	3.00	2.65	1.00	0.00							
How you see older people	5.66	6.48	6.00	6.40	0.00						
How others see you now	1.00	2.24	2.65	3.16	6.08	0.00					

How others saw you as middle aded	2.65	1.73	1.00	1.41	6.40	2.45	0.00		
How others saw you as young adult	3.16	2.45	1.41	1.00	6.78	3.00	1.00	0.00	
How others see typical older person	7.00	7.81	7.55	8.00	4.12	7.35	7.87	8.31	0.00
How others see typical middle aged adult	6.32	6.78	6.48	6.86	4.00	6.56	6.71	7.07	2.24	0.00
How others see typical young adult	7.62	8.49	7.62	7.68	4.47	7.94	7.94	8.00	4.36	3.46	0.00

Element Euclidean Distances (standardized)

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aded	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	0.45	0.00									
Self as middle aged	0.45	0.37	0.00								
Self as young adult	0.55	0.49	0.18	0.00							
How you see older people	1.04	1.19	1.10	1.17	0.00						
How others see you now	0.18	0.41	0.49	0.58	1.12	0.00					
How others saw you as middle aded	0.49	0.32	0.18	0.26	1.17	0.45	0.00				
How others saw you as young adult	0.58	0.45	0.26	0.18	1.24	0.55	0.18	0.00			
How others see typical older person	1.28	1.43	1.39	1.47	0.76	1.35	1.44	1.52	0.00		
How others see typical middle aged adult	1.16	1.24	1.19	1.26	0.73	1.20	1.23	1.30	0.41	0.00	
How others see typical young adult	1.40	1.56	1.40	1.41	0.82	1.46	1.46	1.47	0.80	0.64	0.00

Note. Values are standardized around the expected distance between random pairings of elements. For this grid: 5.45.

Descriptive Statistics for Constructs [(JS)]

	Means	Sum of Squares	Percent Total Sum of Squares
Old	3.73	16.18	10.89
Respected	5.73	16.18	10.89
Open to new experiences	6.18	13.64	9.18
Lots of interests	6.18	13.64	9.18
Take people at face vaule	6.27	16.18	10.89
Hard working	5.91	24.91	16.77
Physically active	6.00	10.00	6.73
Interesting	6.18	13.64	9.18
Helpful	6.36	8.55	5.75
Knowledgable	5.73	6.18	4.16
Has good discipline	6.64	4.55	3.06
Confident	6.09	4.91	3.30

Total SS: 148.55
Bias: 0.68
Variability: 0.37

Construct Correlations

	Old	Respected	Open to new experiences	Lots of interests	Take people at face vaule	Hard working	Physically active	Interesting	Helpful	Knowledgable	Has good discipline	Confident
Old	1.00											
Respected	-0.54	1.00										
Open to new experiences	-0.70	0.91	1.00									
Lots of interests	-0.64	0.91	0.93	1.00								
Take people at face vaule	-0.57	0.67	0.84	0.64	1.00							

Hard working	-0.51	0.88	0.93	0.88	0.86	1.00			
Physically active	-0.63	0.63	0.60	0.60	0.39	0.57	1.00		
Interesting	-0.50	0.91	0.93	0.93	0.77	0.99	0.60	1.00	
Helpful	-0.59	0.86	0.95	0.86	0.93	0.98	0.54	0.95	1.00
Knowledgable	-0.18	0.72	0.71	0.60	0.78	0.86	0.51	0.82	0.84
Has good discipline	-0.13	0.69	0.60	0.73	0.48	0.81	0.44	0.85	0.71
Confident	0.03	0.70	0.59	0.71	0.31	0.64	0.14	0.71	0.56

1.00									
0.74	1.00								
0.96	0.74	1.00							
0.94	0.71	0.96	1.00						
0.89	0.67	0.91	0.96	1.00					
0.89	0.67	0.91	0.96	1.00	1.00				
0.89	0.67	0.91	0.96	1.00	1.00	1.00			
0.89	0.67	0.91	0.96	1.00	1.00	1.00	1.00		
0.89	0.67	0.91	0.96	1.00	1.00	1.00	1.00	1.00	
0.89	0.67	0.91	0.96	1.00	1.00	1.00	1.00	1.00	1.00

Direction cosines between Constructs and Elements

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aded	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Old	-0.14	-0.30	-0.72	-0.89	0.60	-0.18	-0.70	-0.87	0.81	0.65	0.23
Respected	0.62	0.89	0.78	0.71	-0.84	0.78	0.93	0.86	-0.84	-0.76	-0.84
Open to new experiences	0.71	0.82	0.90	0.86	-0.77	0.75	0.93	0.90	-0.96	-0.91	-0.80
Lots of interests	0.69	0.79	0.86	0.81	-0.92	0.74	0.89	0.86	-0.82	-0.80	-0.79
Take people at face vaule	0.66	0.68	0.79	0.74	-0.32	0.65	0.76	0.73	-0.89	-0.96	-0.71
Hard working	0.77	0.88	0.90	0.80	-0.67	0.79	0.91	0.83	-0.87	-0.93	-0.94
Physically active	-0.04	0.63	0.79	0.77	-0.63	0.05	0.79	0.78	-0.63	-0.45	-0.53
Interesting	0.76	0.89	0.90	0.79	-0.77	0.80	0.91	0.83	-0.83	-0.88	-0.95
Helpful	0.76	0.84	0.91	0.83	-0.62	0.77	0.90	0.85	-0.92	-0.98	-0.88
Knowledgable	0.63	0.92	0.71	0.55	-0.36	0.65	0.72	0.58	-0.67	-0.75	-0.92

Has good discipline	0.66	0.76	0.67	0.52	-0.61	0.66	0.67
0.54	-0.44	-0.63	-0.91				
Confident	0.80	0.75	0.38	0.24	-0.67	0.84	0.47
0.33	-0.36	-0.44	-0.75				

Note. Values reflect construct/element cosines (correlations) in the full component space.

Eigenvalue Decomposition

	Eigenvalue	% Variance	Cumulative %	Scree
PC_ 1	114.55	77.11	77.11	|**********
PC_ 2	15.54	10.46	87.58	|***
PC_ 3	9.33	6.28	93.86	|**
PC_ 4	5.52	3.72	97.57	|**
PC_ 5	2.23	1.50	99.07	|*
PC_ 6	0.81	0.54	99.62	|*
PC_ 7	0.33	0.22	99.84	|*
PC_ 8	0.24	0.16	100.00	|*
PC_ 9	0.00	0.00	100.00	|*
PC_10	0.00	0.00	100.00	|*

Element Loadings

	PC_1	PC_2	PC_3
Self now	1.77	-1.23	0.48
Ideal self	2.69	-0.92	-0.39
Self as middle aged	2.27	0.49	0.01
Self as young adult	2.51	1.26	0.00
How you see older people	-3.06	-0.47	2.45
How others see you now	2.12	-1.28	0.17
How others saw you as middle aded	2.62	0.43	-0.30
How others saw you as young adult	2.86	1.20	-0.31
How others see typical older person	-4.90	-1.57	-0.88
How others see typical middle aged adult	-3.93	-0.21	-1.39
How others see typical young adult	-4.93	2.31	0.17

Note. Values for plotting elements in the component space.

Element Eigenvectors

	PC_1	PC_2	PC_3
Self now	0.17	-0.31	0.16
Ideal self	0.25	-0.23	-0.13
Self as middle aged	0.21	0.12	0.00
Self as young adult	0.23	0.32	0.00
How you see older people	-0.29	-0.12	0.80
How others see you now	0.20	-0.33	0.05
How others saw you as middle aded	0.24	0.11	-0.10
How others saw you as young adult	0.27	0.30	-0.10
How others see typical older person	-0.46	-0.40	-0.29
How others see typical middle aged adult	-0.37	-0.05	-0.45

How others see typical young adult	-0.46	0.59	0.05

Construct Loadings

	PC_1	PC_2	PC_3
Old	-2.57	-3.04	0.01
Respected	3.74	-0.23	-0.95
Open to new experiences	3.60	0.37	0.07
Lots of interests	3.43	0.09	-1.03
Take people at face vaule	3.40	0.19	2.12
Hard working	4.89	-0.75	0.41
Physically active	2.05	1.19	-1.10
Interesting	3.61	-0.62	-0.28
Helpful	2.86	-0.15	0.58
Knowledgable	2.00	-0.96	0.51
Has good discipline	1.58	-1.00	-0.46
Confident	1.36	-1.34	-0.77

Construct Eigenvectors

	PC_1	PC_2	PC_3
Old	-0.24	-0.77	0.00
Respected	0.35	-0.06	-0.31
Open to new experiences	0.34	0.09	0.02
Lots of interests	0.32	0.02	-0.34
Take people at face vaule	0.32	0.05	0.70
Hard working	0.46	-0.19	0.13
Physically active	0.19	0.30	-0.36
Interesting	0.34	-0.16	-0.09
Helpful	0.27	-0.04	0.19
Knowledgable	0.19	-0.24	0.17
Has good discipline	0.15	-0.25	-0.15
Confident	0.13	-0.34	-0.25

Note. Values for orienting (drawing) constructs in component space.

{Graph Created: JS / PC_1 vs. PC_2 (Slater)}
{Graph Created: JS / PC_1 vs. PC_3 (Slater)}
{Graph Created: JS / PC_2 vs. PC_3 (Slater)}

29/04/2008 (12:43:57)

Slater Analyses for ME

Original Grid (ME)

```
                                Self now
                                .       Ideal self
                                .       .       Self as middle aged
                                .       .       .       Self as young
adult
                                .       .       .       .       How
you see older people
                                .       .       .       .       .
How others see you now
                                .       .       .       .       .
.       How others saw you as middle aged
                                .       .       .       .       .
.       .       How others saw you as young adult
                                .       .       .       .       .
.       .       .       How others see typical older person
                                .       .       .       .       .
.       .       .       .       How others see typical middle aged
adult
                                .       .       .       .       .
.       .       .       .       .       How others see typical young
adult
                        Old     5.00    2.00    2.00    1.00    6.00
4.00    2.00    1.00    7.00    5.00    1.00    Young
                  Respected     4.00    7.00    6.00    6.00    2.00
5.00    6.00    5.00    3.00    4.00    5.00    Disrespected
                      Happy     2.00    7.00    7.00    5.00    3.00
6.00    6.00    5.00    3.00    4.00    5.00    Depressed
     Financially struggling     3.00    1.00    5.00    6.00    4.00
3.00    3.00    2.00    4.00    5.00    4.00    Financially secure
                 Easy going     6.00    6.00    6.00    6.00    4.00
6.00    6.00    5.00    6.00    5.00    3.00    Aggressive
             Strong person      3.00    7.00    7.00    7.00    5.00
6.00    6.00    7.00    4.00    5.00    5.00    Can't cope
                    Active      6.00    7.00    7.00    7.00    5.00
6.00    7.00    7.00    3.00    4.00    2.00    Less active
                        Fit     5.00    7.00    7.00    7.00    5.00
6.00    7.00    7.00    4.00    6.00    7.00    Unwell
                   Worrier      6.00    1.00    2.00    3.00    5.00
3.00    2.00    2.00    5.00    4.00    5.00    Happy
Being discriminated against     5.00    1.00    7.00    2.00    5.00
3.00    7.00    2.00    6.00    4.00    5.00    Not discriminated
against
                    Trusted     7.00    7.00    7.00    7.00    7.00
7.00    7.00    7.00    5.00    5.00    3.00    Not trusted
                Good morals     7.00    7.00    7.00    7.00    6.00
7.00    7.00    7.00    5.00    3.00    2.00    No morals
```

Descriptive Statistics for Elements [ME]

	Means	Sum of Squares	Percent Total Sum of Squares
Self now	-0.02	29.69	9.53
Ideal self	0.07	41.60	13.36
Self as middle aged	0.90	25.96	8.33
Self as young adult	0.40	24.32	7.81
How you see older people	-0.18	26.23	8.42
How others see you now	0.23	6.69	2.15
How others saw you as middle aged	0.57	19.41	6.23
How others saw you as young adult	-0.18	21.69	6.96
How others see typical older person	-0.35	42.78	13.73
How others see typical middle aged adult	-0.43	19.60	6.29
How others see typical young adult	-1.02	53.50	17.18

Note. Values are based upon deviation matrix in which construct means were removed from the original grid scores.
Total SS: 311.45

Element Euclidean Distances

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	10.44	0.00									
Self as middle aged	9.11	7.35	0.00								
Self as young adult	8.77	6.00	5.66	0.00							
How you see older people	4.24	10.72	8.89	8.89	0.00						
How others see you now	6.40	4.90	5.48	4.90	6.24	0.00					

How others saw you as middle aged	7.94	6.63	2.45	6.16	8.31	4.90	0.00			
How others saw you as young adult	8.60	3.61	6.40	4.36	8.60	4.12	5.57	0.00		
How others see typical older person	5.29	12.21	10.15	10.72	4.24	7.81	9.54	10.77	0.00	
How others see typical middle aged adult	6.56	9.80	8.37	7.87	5.00	6.16	8.12	8.31	4.80	0.00
How others see typical young adult	10.10	11.36	9.95	9.85	9.17	9.33	9.64	9.80	8.83	5.92	0.00

Element Euclidean Distances (standardized)

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	1.32	0.00									
Self as middle aged	1.15	0.93	0.00								
Self as young adult	1.11	0.76	0.72	0.00							
How you see older people	0.54	1.36	1.13	1.13	0.00						
How others see you now	0.81	0.62	0.69	0.62	0.79	0.00					
How others saw you as middle aged	1.01	0.84	0.31	0.78	1.05	0.62	0.00				
How others saw you as young adult	1.09	0.46	0.81	0.55	1.09	0.52	0.71	0.00			
How others see typical older person	0.67	1.55	1.29	1.36	0.54	0.99	1.21	1.36	0.00		
How others see typical middle aged adult	0.83	1.24	1.06	1.00	0.63	0.78	1.03	1.05	0.61	0.00	
How others see typical young adult	1.28	1.44	1.26	1.25	1.16	1.18	1.22	1.24	1.12	0.75	0.00

Note. Values are standardized around the expected distance between random pairings of elements. For this grid: 7.89.

Descriptive Statistics for Constructs [(ME)]

	Means	Sum of Squares	Percent Total Sum of Squares
Old	3.27	48.18	15.47
Respected	4.82	21.64	6.95
Happy	4.82	27.64	8.87
Financially struggling	3.64	20.55	6.60
Easy going	5.36	10.55	3.39
Strong person	5.64	18.55	5.95
Active	5.55	32.73	10.51
Fit	6.18	11.64	3.74
Worrier	3.45	26.73	8.58
Being discriminated against	4.27	42.18	13.54
Trusted	6.27	18.18	5.84
Good morals	5.91	32.91	10.57

Total SS: 311.45
Bias: 0.46
Variability: 0.54

Construct Correlations

	Old	Respected	Happy	Financially struggling	Easy going	Strong person	Active	Fit	Worrier	Being discriminated against	Trusted	Good morals
Old	1.00											
Respected	-0.82	1.00										
Happy	-0.70	0.84	1.00									
Financially struggling	0.10	-0.22	-0.20	1.00								
Easy going	0.08	0.38	0.22	-0.10								

1.00
Strong person -0.73 0.71 0.85 -0.07
0.18 1.00
Active -0.42 0.57 0.47 -0.26
0.64 0.62 1.00
Fit -0.95 0.84 0.80 -0.08 -
0.07 0.80 0.46 1.00
Worrier 0.63 -0.79 -0.89 0.33 -
0.41 -0.91 -0.70 -0.73 1.00
Being discriminated against 0.31 -0.31 -0.19 0.34 -
0.05 -0.43 -0.29 -0.30 0.35 1.00
Trusted -0.06 0.23 0.20 -0.25
0.64 0.39 0.92 0.10 -0.47 -0.21 1.00
Good morals -0.14 0.33 0.26 -0.32
0.72 0.39 0.90 0.11 -0.49 -0.18 0.95 1.00

Direction cosines between Constructs and Elements

Self now
| Ideal self
| | Self as middle
aged
| | | Self as
young adult
| | | |
How you see older people
| | | |
| How others see you now
| | | |
| | How others saw you as middle aged
| | | |
| | | How others saw you as young adult
| | | |
| | | | How others see typical older
person
| | | |
| | | | | How others see typical
middle aged adult
| | | |
| | | | | | How others see
typical young adult
| | | |
| | | | | | |
Old 0.68 -0.57 -0.49 -0.66
0.84 0.00 -0.47 -0.69 0.89 0.52 -0.19
Respected -0.63 0.76 0.59 0.60 -
0.97 0.34 0.60 0.58 -0.82 -0.59 -0.10
Happy -0.85 0.72 0.71 0.42 -
0.81 0.44 0.62 0.51 -0.75 -0.51 -0.08
Financially struggling -0.04 -0.63 0.22 0.28
0.19 -0.48 -0.17 -0.53 0.23 0.46 0.23
Easy going 0.14 0.35 0.38 0.29 -
0.29 0.59 0.42 0.10 -0.13 -0.48 -0.79
Strong person -0.85 0.73 0.61 0.70 -
0.68 0.45 0.45 0.73 -0.85 -0.54 -0.24
Active -0.14 0.63 0.55 0.61 -
0.42 0.59 0.61 0.67 -0.72 -0.84 -0.79
Fit -0.78 0.62 0.57 0.62 -
0.84 0.06 0.52 0.66 -0.92 -0.45 0.15
Worrier 0.74 -0.84 -0.63 -0.50

```
0.75    -0.56    -0.62    -0.71     0.79     0.62     0.39
Being discriminated against     0.27    -0.70     0.38    -0.55
0.32    -0.56     0.41    -0.70     0.48     0.15     0.17
                    Trusted     0.13     0.44     0.38     0.40    -
0.05     0.66     0.43     0.49    -0.44    -0.75    -0.94
                Good morals     0.12     0.48     0.42     0.41    -
0.17     0.67     0.51     0.51    -0.44    -0.87    -0.90
```

Note. Values reflect construct/element cosines (correlations) in the full component space.

Eigenvalue Decomposition

	Eigenvalue	% Variance	Cumulative %	Scree
PC_ 1	162.72	52.24	52.24	|**********
PC_ 2	65.48	21.02	73.27	|*****
PC_ 3	38.20	12.26	85.53	|***
PC_ 4	18.19	5.84	91.37	|**
PC_ 5	14.18	4.55	95.92	|**
PC_ 6	8.16	2.62	98.54	|**
PC_ 7	2.50	0.80	99.35	|*
PC_ 8	1.84	0.59	99.94	|*
PC_ 9	0.17	0.05	99.99	|*
PC_10	0.03	0.01	100.00	|*

Element Loadings

	PC_1	PC_2	PC_3
Self now	-3.37	-3.38	-0.40
Ideal self	5.60	-0.07	-2.44
Self as middle aged	3.02	0.06	4.02
Self as young adult	3.47	0.33	-0.62
How you see older people	-4.08	-2.17	-0.42
How others see you now	1.44	-1.30	-0.90
How others saw you as middle aged	2.61	-0.49	3.20
How others saw you as young adult	3.88	-0.02	-1.92
How others see typical older person	-6.13	-1.23	0.28
How others see typical middle aged adult	-3.45	1.73	-0.74
How others see typical young adult	-2.97	6.54	-0.07

Note. Values for plotting elements in the component space.

Element Eigenvectors

	PC_1	PC_2	PC_3
Self now	-0.26	-0.42	-0.07
Ideal self	0.44	-0.01	-0.40
Self as middle aged	0.24	0.01	0.65
Self as young adult	0.27	0.04	-0.10
How you see older people	-0.32	-0.27	-0.07
How others see you now	0.11	-0.16	-0.14
How others saw you as middle aged	0.20	-0.06	0.52
How others saw you as young adult	0.30	0.00	-0.31

How others see typical older person	-0.48	-0.15	0.05
How others see typical middle aged adult	-0.27	0.21	-0.12
How others see typical young adult	-0.23	0.81	-0.01

Construct Loadings

	PC_1	PC_2	PC_3
Old	-5.40	-3.61	-0.46
Respected	4.05	1.28	0.57
Happy	4.33	1.65	1.24
Financially struggling	-1.47	0.98	1.83
Easy going	1.31	-2.10	0.60
Strong person	3.83	0.84	0.15
Active	4.69	-2.96	0.58
Fit	2.77	1.77	0.39
Worrier	-4.75	-0.19	-0.45
Being discriminated against	-3.04	-0.23	5.60
Trusted	2.43	-3.36	0.19
Good morals	3.53	-4.33	0.51

Construct Eigenvectors

	PC_1	PC_2	PC_3
Old	-0.42	-0.45	-0.07
Respected	0.32	0.16	0.09
Happy	0.34	0.20	0.20
Financially struggling	-0.12	0.12	0.30
Easy going	0.10	-0.26	0.10
Strong person	0.30	0.10	0.02
Active	0.37	-0.37	0.09
Fit	0.22	0.22	0.06
Worrier	-0.37	-0.02	-0.07
Being discriminated against	-0.24	-0.03	0.91
Trusted	0.19	-0.42	0.03
Good morals	0.28	-0.53	0.08

Note. Values for orienting (drawing) constructs in component space.

{Graph Created: ME / PC_1 vs. PC_2 (Slater)}
{Graph Created: ME / PC_1 vs. PC_3 (Slater)}
{Graph Created: ME / PC_2 vs. PC_3 (Slater)}

29/04/2008 (11:22:20)

Slater Analyses for MG

Original Grid (MG)

```
                                Self now
                                .       Ideal self
                                .       .       Self as middle aged
                                .       .       .       Self as young
adult
                                .       .       .       .       How you
see older people
                                .       .       .       .       .
How others see you now
                                .       .       .       .       .
.       How others saw you as middle aged
                                .       .       .       .       .
.       .       How others saw you as young adult
                                .       .       .       .       .
.       .       .       How others see typical older person
                                .       .       .       .       .
.       .       .       .       How others see typical middle aged
adult
                                .       .       .       .       .
.       .       .       .       .       How others see typical young
adult
                      Old    5.00    4.00    3.00    5.00    5.00
4.00    3.00    5.00    7.00    3.00    1.00   Young
                Respected    7.00    7.00    7.00    7.00    4.00
7.00    7.00    7.00    4.00    4.00    5.00   Disrespected
                  Content    1.00    7.00    7.00    7.00    5.00
4.00    7.00    7.00    2.00    5.00    3.00   Discontent
                   Mature    7.00    7.00    7.00    7.00    7.00
7.00    7.00    5.00    7.00    4.00    4.00   Immature
            Age awareness    7.00    7.00    7.00    5.00    7.00
7.00    7.00    5.00    7.00    4.00    1.00   No age awareness
             Slowed down    7.00    1.00    5.00    7.00    5.00
4.00    2.00    1.00    5.00    4.00    4.00   Fit
                Conservative    7.00    1.00    1.00    1.00    7.00
4.00    1.00    1.00    6.00    3.00    1.00   Outgoing
              Socially active    1.00    7.00    7.00    7.00    5.00
3.00    7.00    7.00    5.00    6.00    7.00   Not socially active
                  Ignored    7.00    1.00    1.00    1.00    6.00
4.00    1.00    1.00    7.00    2.00    3.00   Attended to
Strong through experience    7.00    7.00    7.00    4.00    6.00
7.00    6.00    4.00    6.00    4.00    3.00   Weak through
inexperience
                  Healthy    1.00    7.00    4.00    7.00    4.00
6.00    7.00    7.00    3.00    6.00    4.00   Unhealthy
            Family nurturance    5.00    7.00    7.00    7.00    7.00
7.00    7.00    7.00    6.00    6.00    4.00   Dysfunctional family
```

Descriptive Statistics for Elements [MG]

	Means	Sum of Squares	Percent Total Sum of Squares
Self now	0.17	101.70	23.37
Ideal self	0.25	32.88	7.55
Self as middle aged	0.25	22.88	5.26
Self as young adult	0.42	32.16	7.39
How you see older people	0.67	34.25	7.87
How others see you now	0.33	16.07	3.69
How others saw you as middle aged	0.17	26.98	6.20
How others saw you as young adult	-0.25	34.34	7.89
How others see typical older person	0.42	53.61	12.32
How others see typical middle aged adult	-0.75	18.34	4.21
How others see typical young adult	-1.67	62.07	14.26

Note. Values are based upon deviation matrix in which construct means were removed from the original grid scores.
Total SS: 435.27

Element Euclidean Distances

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	14.87	0.00									
Self as middle aged	12.85	5.10	0.00								
Self as young adult	14.04	7.07	5.48	0.00							
How you see older people	7.75	10.25	9.11	9.95	0.00						
How others see you now	8.37	7.28	7.00	8.19	5.83	0.00					

How others saw you as middle aged	14.63	1.73	4.36	6.08	10.00	7.07	0.00				
How others saw you as young adult	15.39	4.24	6.78	6.32	10.72	8.43	4.12	0.00			
How others see typical older person	6.40	11.92	10.86	11.49	4.12	7.14	11.87	12.17	0.00		
How others see typical middle aged adult	12.53	7.62	7.21	6.63	8.06	7.28	6.86	6.00	9.59	0.00	
How others see typical young adult	13.86	11.00	9.95	9.64	11.58	10.68	10.20	9.22	11.96	5.74	0.00

Element Euclidean Distances (standardized)

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	1.59	0.00									
Self as middle aged	1.38	0.55	0.00								
Self as young adult	1.50	0.76	0.59	0.00							
How you see older people	0.83	1.10	0.98	1.07	0.00						
How others see you now	0.90	0.78	0.75	0.88	0.62	0.00					
How others saw you as middle aged	1.57	0.19	0.47	0.65	1.07	0.76	0.00				
How others saw you as young adult	1.65	0.45	0.73	0.68	1.15	0.90	0.44	0.00			
How others see typical older person	0.69	1.28	1.16	1.23	0.44	0.77	1.27	1.30	0.00		
How others see typical middle aged adult	1.34	0.82	0.77	0.71	0.86	0.78	0.73	0.64	1.03	0.00	
How others see typical young adult	1.49	1.18	1.07	1.03	1.24	1.14	1.09	0.99	1.28	0.62	0.00

Note. Values are standardized around the expected distance between random pairings of elements. For this grid: 9.33.

Descriptive Statistics for Constructs [(MG)]

	Means	Sum of Squares	Percent Total Sum of Squares
Old	4.09	24.91	5.72
Respected	6.00	20.00	4.59
Content	5.00	50.00	11.49
Mature	6.27	16.18	3.72
Age awareness	5.82	37.64	8.65
Slowed down	4.09	42.91	9.86
Conservative	3.00	66.00	15.16
Socially active	5.64	40.55	9.31
Ignored	3.09	62.91	14.45
Strong through experience	5.55	22.73	5.22
Healthy	5.09	40.91	9.40
Family nurturance	6.36	10.55	2.42

Total SS: 435.27
Bias: 0.50
Variability: 0.63

Construct Correlations

	Old	Respected	Content	Mature	Age awareness	Slowed down	Conservative	Socially active	Ignored	Strong through experience	Healthy	Family nurturance
Old	1.00											
Respected	-0.09	1.00										
Content	-0.20	0.41	1.00									
Mature	0.53	0.39	0.07	1.00								
Age awareness	0.59	0.29	0.09	0.87	1.00							
Slowed down	0.24	-0.17	-0.50	0.26								

```
0.03     1.00
            Conservative     0.57    -0.47    -0.73     0.31
0.40     0.51     1.00
          Socially active    -0.37     0.00     0.76    -0.31    -
0.38    -0.49    -0.81     1.00
                  Ignored     0.50    -0.48    -0.87     0.24
0.25     0.52     0.95    -0.78     1.00
Strong through experience     0.31     0.33    -0.09     0.80
0.89     0.05     0.39    -0.49     0.30     1.00
                  Healthy    -0.19     0.31     0.82    -0.13    -
0.10    -0.62    -0.71     0.65    -0.81    -0.28     1.00
        Family nurturance     0.35     0.34     0.74     0.53
0.64    -0.30    -0.19     0.26    -0.40     0.38     0.61     1.00
```

Direction cosines between Constructs and Elements

```
                                Self now
                                |        Ideal self
                                |        |        Self as middle aged
                                |        |        |        Self as
young adult
                                |        |        |        |
How you see older people
                                |        |        |        |        |
How others see you now
                                |        |        |        |        |
|        How others saw you as middle aged
                                |        |        |        |        |
|        |        How others saw you as young adult
                                |        |        |        |        |
|        |        |        How others see typical older person
                                |        |        |        |        |
|        |        |        |        How others see typical middle
aged adult
                                |        |        |        |        |
|        |        |        |        |        How others see typical
young adult
                                |        |        |        |        |
|        |        |        |        |        |
                     Old     0.39    -0.18    -0.33    -0.06
0.57     0.31    -0.35    -0.20     0.68    -0.51    -0.68
                Respected    -0.13     0.52     0.55     0.35    -
0.58     0.30     0.54     0.31    -0.54    -0.53    -0.31
                  Content    -0.86     0.81     0.67     0.63    -
0.50    -0.36     0.88     0.73    -0.78     0.07    -0.24
                   Mature     0.32     0.16     0.31     0.03
0.37     0.53     0.10    -0.39     0.29    -0.91    -0.83
             Age awareness     0.31     0.25     0.23    -0.22
0.45     0.61     0.14    -0.28     0.33    -0.80    -0.95
               Slowed down     0.65    -0.80    -0.07     0.18
0.44     0.14    -0.72    -0.78     0.47    -0.16    -0.02
            Conservative     0.85    -0.69    -0.60    -0.61
0.93     0.53    -0.78    -0.77     0.89    -0.28    -0.34
          Socially active    -0.93     0.60     0.48     0.55    -
0.57    -0.81     0.67     0.72    -0.63     0.39     0.30
                  Ignored     0.89    -0.76    -0.65    -0.65
0.84     0.45    -0.85    -0.80     0.94    -0.30    -0.14
Strong through experience     0.44     0.20     0.28    -0.42
0.36     0.70     0.07    -0.45     0.29    -0.80    -0.75
                  Healthy    -0.87     0.77     0.24     0.57    -
```

0.58	-0.18	0.82	0.82	-0.73	0.28	-0.09
	Family nurturance		-0.43	0.64	0.42	0.36
0.02	0.18	0.62	0.37	-0.28	-0.33	-0.78

Note. Values reflect construct/element cosines (correlations) in the full component space.

Eigenvalue Decomposition

	Eigenvalue	% Variance	Cumulative %	Scree
PC_ 1	252.84	58.09	58.09	|**********
PC_ 2	89.38	20.53	78.62	|*****
PC_ 3	32.60	7.49	86.11	|**
PC_ 4	27.32	6.28	92.38	|**
PC_ 5	14.88	3.42	95.80	|**
PC_ 6	10.23	2.35	98.15	|*
PC_ 7	4.54	1.04	99.20	|*
PC_ 8	2.53	0.58	99.78	|*
PC_ 9	0.56	0.13	99.91	|*
PC_10	0.41	0.09	100.00	|*

Element Loadings

	PC_1	PC_2	PC_3
Self now	9.65	-0.10	2.21
Ideal self	-4.48	-2.96	-0.98
Self as middle aged	-2.57	-1.81	2.70
Self as young adult	-3.37	-0.18	2.46
How you see older people	4.74	-1.12	-1.93
How others see you now	2.09	-2.08	0.32
How others saw you as middle aged	-4.49	-2.19	-0.18
How others saw you as young adult	-5.07	-0.11	-1.90
How others see typical older person	6.63	-0.18	-2.03
How others see typical middle aged adult	-1.50	3.21	-1.23
How others see typical young adult	-1.63	7.52	0.55

Note. Values for plotting elements in the component space.

Element Eigenvectors

	PC_1	PC_2	PC_3
Self now	0.61	-0.01	0.39
Ideal self	-0.28	-0.31	-0.17
Self as middle aged	-0.16	-0.19	0.47
Self as young adult	-0.21	-0.02	0.43
How you see older people	0.30	-0.12	-0.34
How others see you now	0.13	-0.22	0.06
How others saw you as middle aged	-0.28	-0.23	-0.03
How others saw you as young adult	-0.32	-0.01	-0.33
How others see typical older person	0.42	-0.02	-0.35
How others see typical middle aged adult	-0.09	0.34	-0.21
How others see typical young adult	-0.10	0.80	0.10

Construct Loadings

	PC_1	PC_2	PC_3
Old	2.47	-2.52	-1.43
Respected	-1.66	-2.20	2.53
Content	-6.12	-2.80	0.00
Mature	1.23	-3.38	1.02
Age awareness	1.96	-5.73	-0.13
Slowed down	4.11	1.02	3.81
Conservative	7.72	-0.85	-1.74
Socially active	-5.51	0.88	-0.95
Ignored	7.73	0.50	-1.35
Strong through experience	1.85	-3.74	0.69
Healthy	-5.45	-1.44	-1.44
Family nurturance	-1.23	-2.69	-0.49

Construct Eigenvectors

	PC_1	PC_2	PC_3
Old	0.16	-0.27	-0.25
Respected	-0.10	-0.23	0.44
Content	-0.38	-0.30	0.00
Mature	0.08	-0.36	0.18
Age awareness	0.12	-0.61	-0.02
Slowed down	0.26	0.11	0.67
Conservative	0.49	-0.09	-0.30
Socially active	-0.35	0.09	-0.17
Ignored	0.49	0.05	-0.24
Strong through experience	0.12	-0.40	0.12
Healthy	-0.34	-0.15	-0.25
Family nurturance	-0.08	-0.28	-0.09

Note. Values for orienting (drawing) constructs in component space.

{Graph Created: MG / PC_1 vs. PC_2 (Slater)}
{Graph Created: MG / PC_1 vs. PC_3 (Slater)}
{Graph Created: MG / PC_2 vs. PC_3 (Slater)}

29/04/2008 (11:44:43)

Slater Analyses for MT

Original Grid (MT)

```
                     Self now
                     .       Ideal self
                     .       .       Self as middle aged
                     .       .       .       Self as  young adult
                     .       .       .       .       How you see
older people
                     .       .       .       .       .       How
others see you now
                     .       .       .       .       .       .
How others saw you as middle aged
                     .       .       .       .       .       .
.       How others saw you as young adult
                     .       .       .       .       .       .
.       .       How others see typical older person
                     .       .       .       .       .       .
.       .       .       How others see typical middle aged adult
                     .       .       .       .       .       .
.       .       .       .       How others see typical young adult
             Old    4.00    2.00    2.00    1.00    4.00    4.00
4.00    1.00    5.00    4.00    1.00   Young
        Respected    6.00    4.00    5.00    4.00    6.00    6.00
4.00    4.00    6.00    4.00    2.00   No respect
  Socially active    5.00    7.00    7.00    7.00    5.00    5.00
7.00    7.00    4.00    5.00    3.00   Socially inactive
             Busy    5.00    7.00    7.00    7.00    2.00    4.00
7.00    7.00    2.00    4.00    1.00   Less active
          Healthy    4.00    7.00    7.00    7.00    5.00    5.00
7.00    7.00    4.00    5.00    7.00   Ill
         Youthful    2.00    7.00    7.00    7.00    4.00    2.00
7.00    7.00    4.00    4.00    7.00   Grumpy
    Not passed it    7.00    7.00    7.00    7.00    4.00    7.00
7.00    7.00    5.00    5.00    7.00   Passed it
           Valued    7.00    7.00    7.00    7.00    6.00    7.00
7.00    7.00    6.00    6.00    2.00   Not valued
           Mature    7.00    7.00    6.00    4.00    6.00    7.00
7.00    5.00    7.00    6.00    1.00   Immature
         Positive    5.00    7.00    7.00    4.00    5.00    5.00
7.00    5.00    6.00    5.00    3.00   Indecisive
  Money conscious    5.00    7.00    7.00    7.00    7.00    7.00
7.00    7.00    7.00    4.00    1.00   Lazy
Wants things easy    1.00    1.00    1.00    1.00    1.00    1.00
1.00    1.00   41.00    4.00    7.00   Earning keep
```

Descriptive Statistics for Elements [MT]

Means

	Sum of Squares		Percent Total Sum of Squares
Self now	-0.53	41.37	2.40
Ideal self	0.47	38.10	2.21
Self as middle aged	0.47	36.28	2.10
Self as young adult	-0.11	41.46	2.40
How you see older people	-0.78	40.55	2.35
How others see you now	-0.36	39.19	2.27
How others saw you as middle aged	0.64	38.46	2.23
How others saw you as young adult	0.05	37.28	2.16
How others see typical older person	2.72	1290.55	74.73
How others see typical middle aged adult	-0.70	13.37	0.77
How others see typical young adult	-1.86	110.28	6.39

Note. Values are based upon deviation matrix in which construct means were removed
from the original grid scores.
Total SS: 1726.91

Element Euclidean Distances

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	7.62	0.00									
Self as middle aged	7.48	1.41	0.00								
Self as young adult	8.31	4.36	3.87	0.00							
How you see older people	5.39	8.06	7.81	8.37	0.00						
How others see you now	2.45	7.35	7.21	8.06	4.36	0.00					
How others saw you as middle aged	7.35	2.00	2.45	5.20	7.81	7.07	0.00				
How others saw you as young adult	7.94	3.00	2.65	1.41	8.12	7.68	4.12	0.00			

How others see typical older person	40.31	40.88	40.85	41.11	40.07	40.21	40.78	41.01	0.00		
How others see typical middle aged adult	5.10	7.62	7.62	7.94	5.20	5.66	7.35	7.68	37.30	0.00	
How others see typical young adult	14.00	14.35	14.14	12.77	13.00	14.28	14.63	13.15	36.18	10.30	0.00

Element Euclidean Distances (standardized)

	Self now	Ideal self	Self as middle aged	Self as young adult	How you see older people	How others see you now	How others saw you as middle aged	How others saw you as young adult	How others see typical older person	How others see typical middle aged adult	How others see typical young adult
Self now	0.00										
Ideal self	0.41	0.00									
Self as middle aged	0.40	0.08	0.00								
Self as young adult	0.45	0.23	0.21	0.00							
How you see older people	0.29	0.43	0.42	0.45	0.00						
How others see you now	0.13	0.40	0.39	0.43	0.23	0.00					
How others saw you as middle aged	0.40	0.11	0.13	0.28	0.42	0.38	0.00				
How others saw you as young adult	0.43	0.16	0.14	0.08	0.44	0.41	0.22	0.00			
How others see typical older person	2.17	2.20	2.20	2.21	2.16	2.16	2.19	2.21	0.00		
How others see typical middle aged adult	0.27	0.41	0.41	0.43	0.28	0.30	0.40	0.41	2.01	0.00	
How others see typical young adult	0.75	0.77	0.76	0.69	0.70	0.77	0.79	0.71	1.95	0.55	0.00

Note. Values are standardized around the expected distance between random pairings of elements. For this grid: 18.58.

Descriptive Statistics for Constructs [(MT)]

	Means	Sum of Squares	Percent Total Sum of Squares
Old	2.91	22.91	1.33
Respected	4.64	16.55	0.96
Socially active	5.64	20.55	1.19
Busy	4.82	55.64	3.22
Healthy	5.91	16.91	0.98
Youthful	5.27	44.18	2.56
Not passed it	6.36	12.55	0.73
Valued	6.27	22.18	1.28
Mature	5.73	34.18	1.98
Positive	5.36	16.55	0.96
Money conscious	6.00	38.00	2.20
Wants things easy	5.45	1426.73	82.62

Total SS: 1726.91
Bias: 0.54
Variability: 1.26

Construct Correlations

	Old	Respected	Socially active	Busy	Healthy	Youthful	Not passed it	Valued	Mature	Positive	Money conscious	Wants things easy
Old	1.00											
Respected	0.70	1.00										
Socially active	-0.34	-0.02	1.00									
Busy	-0.37	-0.09	0.95	1.00								
Healthy	-0.82	-0.74	0.57	0.55	1.00							
Youthful	-0.75	-0.74	0.50	0.45	0.92	1.00						
Not passed it	-0.57	-0.38	0.40	0.60	0.57	0.38	1.00					
Valued	0.23	0.58	0.75	0.73	-0.09	-0.15	0.11	1.00				
Mature	0.70	0.75	0.34	0.31	-0.47	-0.47	-0.19	0.79	1.00			
Positive	0.33	0.33	0.57	0.52	0.08							

```
0.14     0.04     0.62     0.76     1.00
  Money conscious     0.20     0.60     0.68     0.54     0.00
0.00    -0.05     0.86     0.69     0.64     1.00
Wants things easy     0.42     0.24    -0.49    -0.49    -0.47    -
0.18    -0.41    -0.21     0.11     0.07     0.02     1.00
```

Direction cosines between Constructs and Elements

```
                       Self now
                       |        Ideal self
                       |        |        Self as middle aged
                       |        |        |        Self as  young
adult
                       |        |        |        |        How you
see older people
                       |        |        |        |        |
How others see you now
                       |        |        |        |        |        |
How others saw you as middle aged
                       |        |        |        |        |        |
|        How others saw you as young adult
                       |        |        |        |        |        |
|        |        How others see typical older person
                       |        |        |        |        |        |
|        |        |        How others see typical middle aged adult
                       |        |        |        |        |        |
|        |        |        |        How others see typical young
adult
                       |        |        |        |        |        |
|        |        |        |        |
             Old     0.22    -0.46    -0.51    -0.79     0.17
0.23    -0.25    -0.75     0.45     0.31    -0.39
        Respected     0.34    -0.25    -0.21    -0.45     0.27
0.44    -0.19    -0.41     0.28    -0.07    -0.67
  Socially active     0.05     0.87     0.86     0.69    -0.05
0.11     0.83     0.79    -0.47    -0.43    -0.68
             Busy     0.14     0.86     0.85     0.70    -0.19
0.12     0.82     0.78    -0.48    -0.38    -0.62
          Healthy    -0.32     0.69     0.70     0.77    -0.17    -
0.26     0.60     0.79    -0.49    -0.38     0.18
         Youthful    -0.59     0.51     0.52     0.59    -0.37    -
0.58     0.43     0.60    -0.21    -0.47     0.24
    Not passed it     0.16     0.54     0.55     0.58    -0.35
0.11     0.47     0.60    -0.42    -0.34     0.01
           Valued     0.32     0.50     0.49     0.23     0.05
0.38     0.53     0.33    -0.17    -0.28    -0.98
           Mature     0.30     0.16     0.09    -0.35     0.07
0.35     0.26    -0.21     0.15    -0.06    -0.89
         Positive    -0.10     0.45     0.40    -0.14    -0.19    -
0.06     0.51     0.04     0.09    -0.36    -0.70
  Money conscious    -0.05     0.36     0.36     0.13     0.01
0.16     0.37     0.21     0.05    -0.59    -0.88
Wants things easy    -0.66    -0.78    -0.79    -0.76    -0.62    -
0.67    -0.76    -0.80     1.00    -0.33     0.16
```

Note. Values reflect construct/element cosines (correlations) in the full component space.

Eigenvalue Decomposition

	Eigenvalue	% Variance	Cumulative %	Scree
PC_ 1	1460.36	84.57	84.57	|******************
PC_ 2	130.88	7.58	92.14	|***
PC_ 3	98.85	5.72	97.87	|**
PC_ 4	14.52	0.84	98.71	|*
PC_ 5	13.92	0.81	99.52	|*
PC_ 6	4.95	0.29	99.80	|*
PC_ 7	2.14	0.12	99.93	|*
PC_ 8	1.07	0.06	99.99	|*
PC_ 9	0.20	0.01	100.00	|*
PC_10	0.00	0.00	100.00	|*

Element Loadings

	PC_1	PC_2	PC_3
Self now	-4.09	-0.85	-4.36
Ideal self	-4.90	-2.41	2.53
Self as middle aged	-4.89	-2.18	2.49
Self as young adult	-5.03	-0.05	3.29
How you see older people	-3.78	0.47	-4.07
How others see you now	-4.04	-1.37	-4.27
How others saw you as middle aged	-4.79	-2.72	1.85
How others saw you as young adult	-5.00	-0.78	3.15
How others see typical older person	35.88	-1.77	0.28
How others see typical middle aged adult	-1.12	1.45	-2.42
How others see typical young adult	1.77	10.21	1.52

Note. Values for plotting elements in the component space.

Element Eigenvectors

	PC_1	PC_2	PC_3
Self now	-0.11	-0.07	-0.44
Ideal self	-0.13	-0.21	0.25
Self as middle aged	-0.13	-0.19	0.25
Self as young adult	-0.13	0.00	0.33
How you see older people	-0.10	0.04	-0.41
How others see you now	-0.11	-0.12	-0.43
How others saw you as middle aged	-0.13	-0.24	0.19
How others saw you as young adult	-0.13	-0.07	0.32
How others see typical older person	0.94	-0.15	0.03
How others see typical middle aged adult	-0.03	0.13	-0.24
How others see typical young adult	0.05	0.89	0.15

Construct Loadings

PC_1	PC_2	PC_3

Old	2.10	-1.81	-3.39
Respected	1.03	-2.59	-2.55
Socially active	-2.32	-3.05	2.34
Busy	-3.86	-4.66	3.88
Healthy	-2.03	0.59	3.40
Youthful	-1.37	0.93	6.21
Not passed it	-1.52	-0.07	1.66
Valued	-1.04	-4.48	-0.14
Mature	0.63	-5.18	-2.14
Positive	0.21	-3.21	0.77
Money conscious	0.02	-5.59	0.69
Wants things easy	37.75	-0.44	1.30

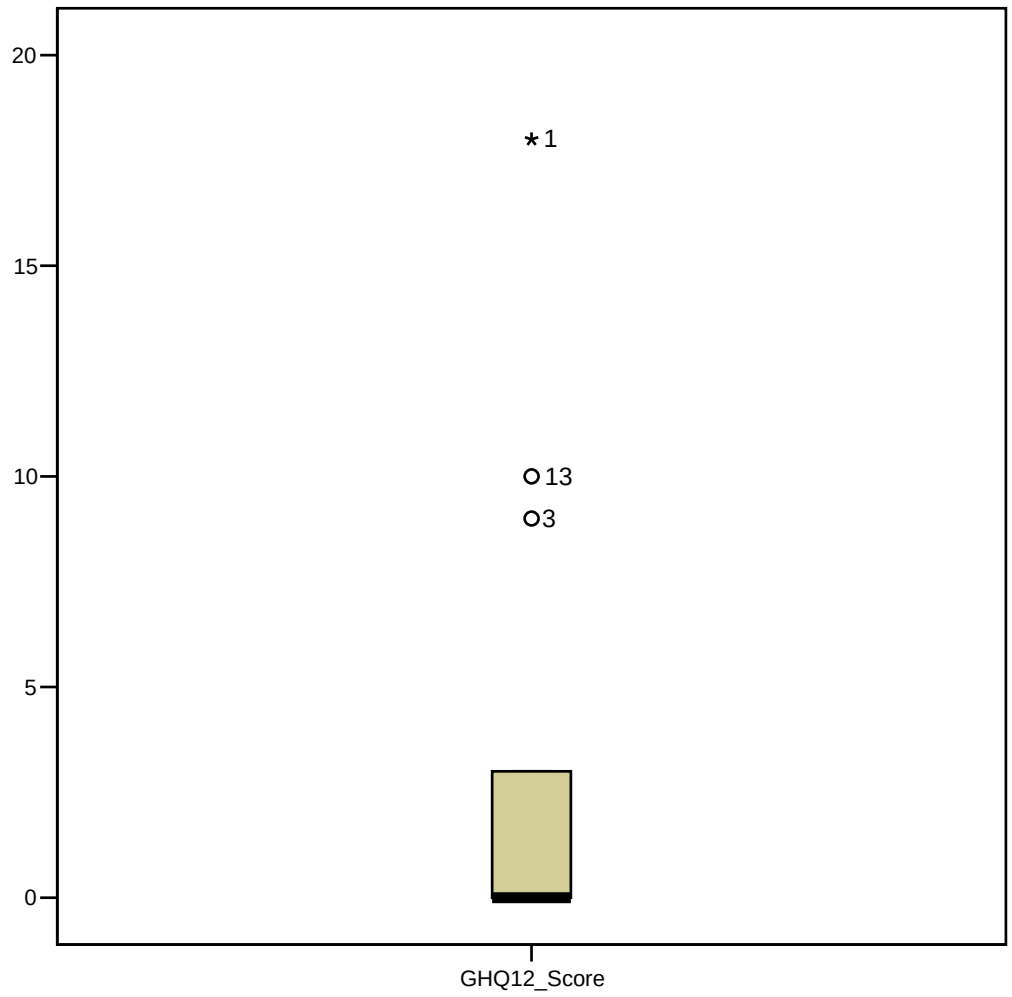
Construct Eigenvectors

	PC_1	PC_2	PC_3
Old	0.05	-0.16	-0.34
Respected	0.03	-0.23	-0.26
Socially active	-0.06	-0.27	0.24
Busy	-0.10	-0.41	0.39
Healthy	-0.05	0.05	0.34
Youthful	-0.04	0.08	0.62
Not passed it	-0.04	-0.01	0.17
Valued	-0.03	-0.39	-0.01
Mature	0.02	-0.45	-0.22
Positive	0.01	-0.28	0.08
Money conscious	0.00	-0.49	0.07
Wants things easy	0.99	-0.04	0.13

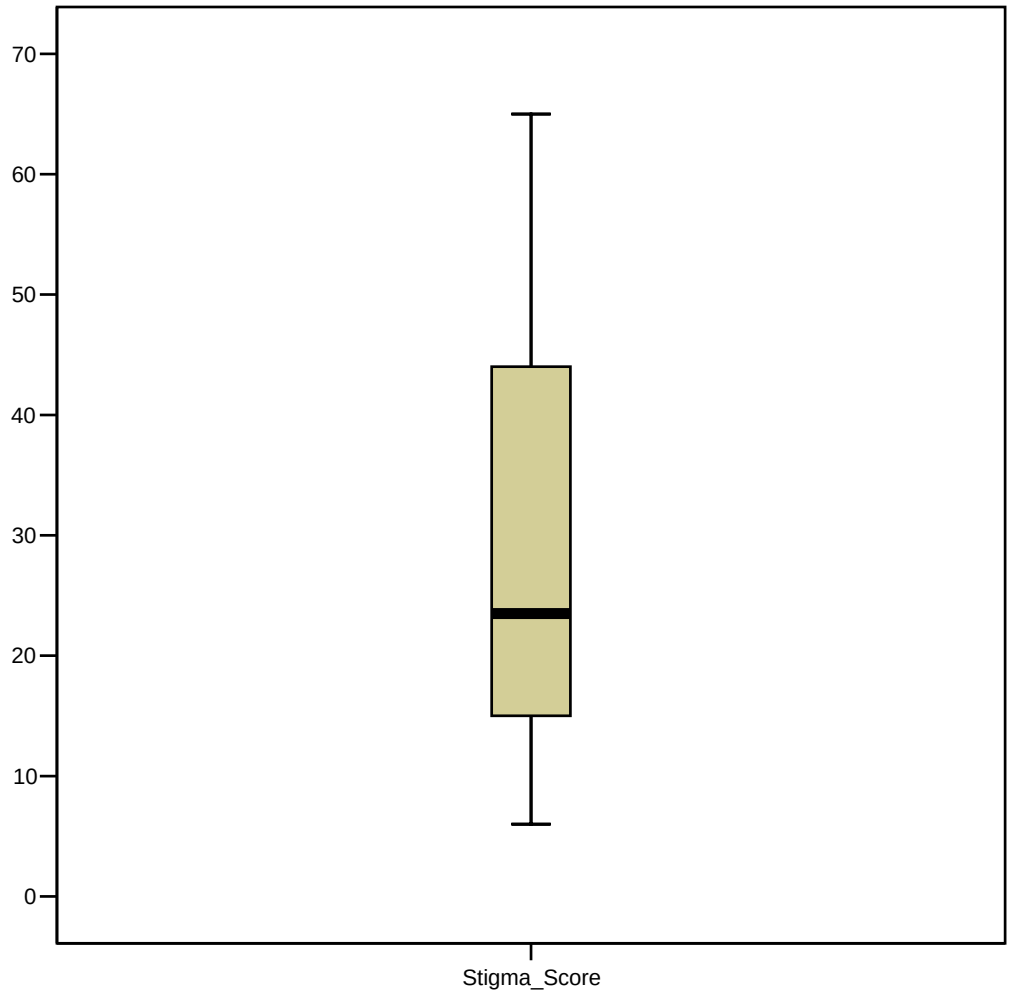
Note. Values for orienting (drawing) constructs in component space.

{Graph Created: MT / PC_1 vs. PC_2 (Slater)}
{Graph Created: MT / PC_1 vs. PC_3 (Slater)}
{Graph Created: MT / PC_2 vs. PC_3 (Slater)}

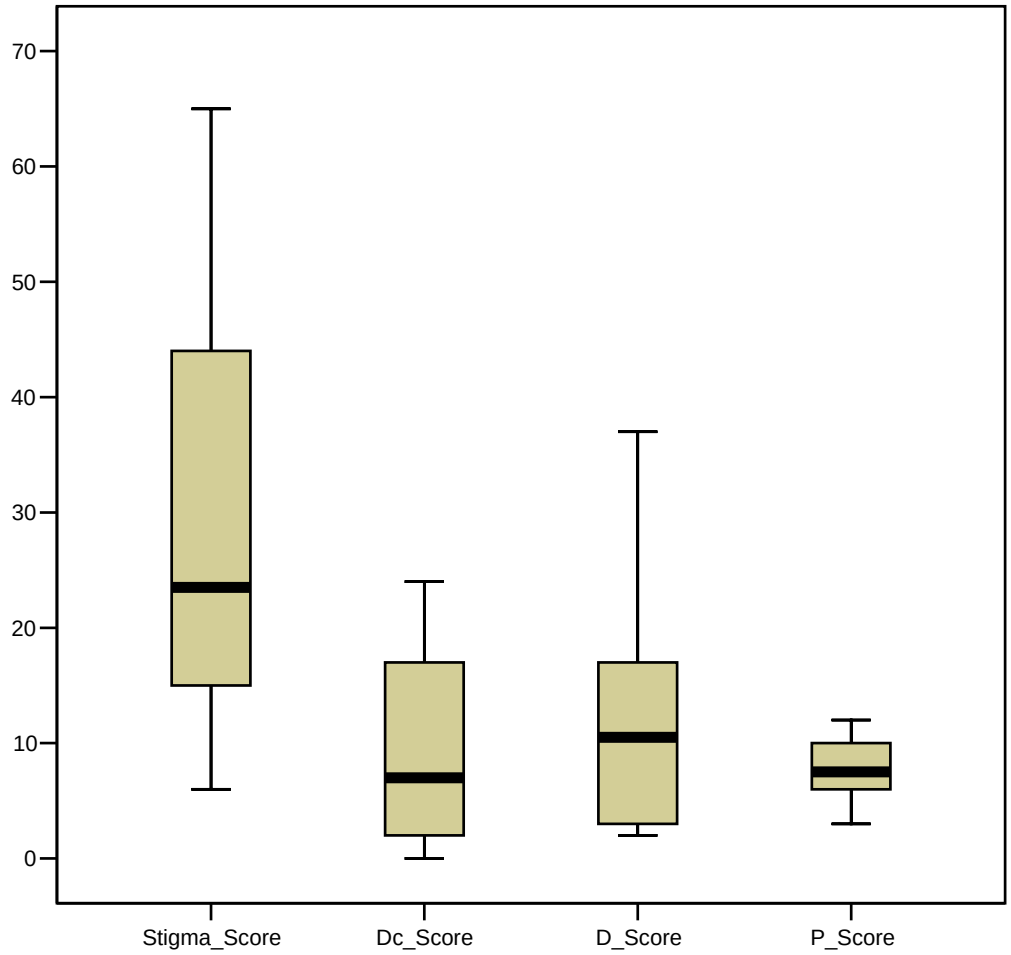
Boxplot of the GHQ-12 scores



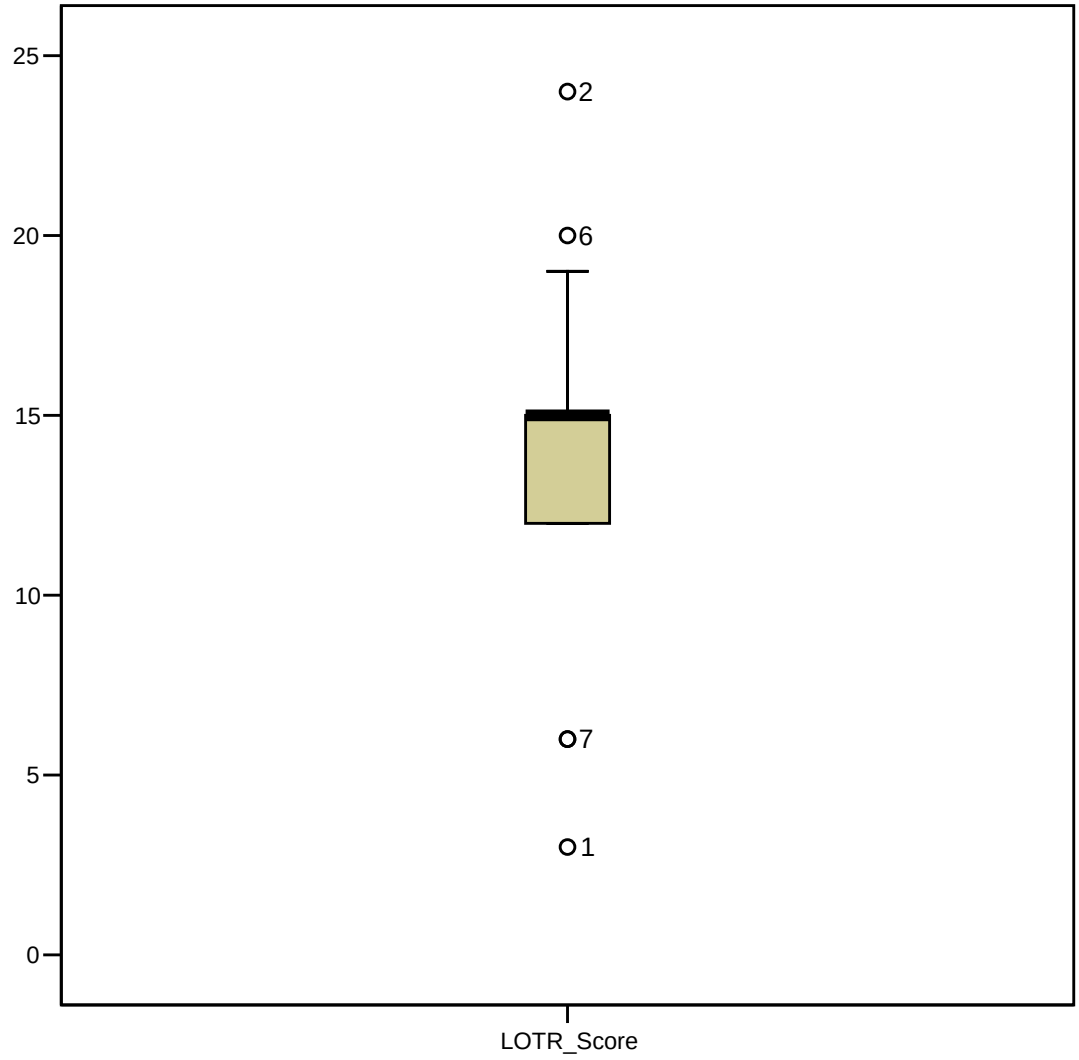
A boxplot of the range of scores for the Stigma Scale



A boxplot showing the distribution of scores around the means for the Stigma Scale and each subscale



Boxplot of the Life Orientation Test – Revised scores



	RANGE	MINIMUM	MAXIMUM	MEAN	STANDARD DEVIATION
AGE	26	65	91	76.75	8.60
STIGMA	54	11	65	30.88	19.15
Dc	20	1	21	9	7.71
D	35	2	37	13.75	11.72
P	4	6	10	8	1.60
LOTR	21	3	24	13.88	6.81
GHQ12	18	0	18	3.13	6.13
SCALE	3	7	10	8.88	1.25
HYP1	1.04	.02	1.06	.44	.32
HYP2	2.55	-1.37	1.18	-.17	.92
HYP3	1.51	-.46	1.05	.25	.45
HYP4	.50	.54	1.04	.77	.21
SUM OF SQUARES	13.21	5.72	18.93	11.91	4.10
PC1	33.71	43.40	77.11	58.67	12.14

Female participant descriptive statistics

	RANGE	MINIMUM	MAXIMUM	MEAN	STANDARD DEVIATION
AGE	21	69	90	76.83	7.63
STIGMA	57	6	63	27.50	21.75
Dc	24	0	24	10.33	10.59
D	26	2	28	10.17	10.21
P	9	3	12	7.17	3.43
LOTR	13	6	19	13.33	4.32
GHQ12	10	0	10	3.17	4.92
SCALE	4	76	10	8.50	1.76
HYP1	1.37	-.47	.90	.28	.48
HYP2	1.36	-.34	1.02	.29	.49
HYP3	2.06	-.93	1.13	-.03	.76
HYP4	.90	.29	1.19	.69	.35
SUM OF SQUARES	20.87	1.33	22.20	10.12	8.15
PC1	42.92	47.41	90.33	69.33	16.40

Male participant descriptive statistics

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Title: Self-stigmatization and ageism amongst older people accessing mental health services

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Abstract

The consequences of suffering from ageism and mental health stigma have not been researched with regards to the possible internalization of this 'double whammy' of stigma. However, it is known that being a victim of stigma can create a self-fulfilling prophecy, leading to withdrawal from society and diminished psychological well-being. It is hypothesized that high levels of self-stigmatization based on age will result in older people making use of mental health services less. This research interviewed 14 older adults, using questionnaire measures and a repertory grid to assess levels of stigma experienced in relation to mental health and old age. Minimal levels of mental health stigma were reported, but this did not lead to self-stigmatization amongst participants and had no apparent bearing on their likelihood to continue to use mental health services. Low levels of self-stigma were found with regards to old age, but again this was not linked to an indication of potential disengagement from services. The overall finding was that this group reported minimal stigma and self-stigma in relation to mental health problems and old age. These participants commented on both

positive and negative aspects of aging and these are reviewed in relation to cognitive processes, resiliency and cohort effects. Future research is outlined which would add to this original piece of research.

Key words*:* Ageism; stigma; self-stigma; mental health problems; service engagement

Introduction

The Mental Health Foundation (2000) reported that 70% of 556 research participants described being victims of mental health stigma and discrimination. Hinshaw (2007) stated that the negative impact of this stigmatization on the life course of people with mental health problems is 'over and above the impairments and problems associated with the conditions themselves' (p.106). These negative consequences have been found to include poor mental health, physical illness, and low social status (Allison, 1998; Major & O'Brien, 2005).

Self-stigma

Goffman (1963) suggested that stigmatized individuals might themselves endorse the negative belief that is being directed towards them. Corrigan and Watson's (2002) model of self-stigma suggests that self-stigma only develops after an individual has an awareness of a stereotype directed towards them, and then agrees with it, thereby applying it inwardly. This internalization can lead to people with mental health problems adopting attitudes of self-loathing and self-blame, which can ultimately affect their potential recovery (Everett, 2003).

Likelihood to seek help

Perlick (2001) commented that because messages of helplessness and hopelessness are believed by people with mental health problems, they give up on themselves and their future. Further research demonstrates that self-stigma can affect self-esteem, psychological well-being and self-efficacy, which can have implications for adherence behaviour to services (Fenton *et al.,* 1997; Sirey, Bruce, Alexopoulos, Perlick & Friedman *et al*., 2001; Sirey, Bruce, Alexopoulos, Perlick & Raue *et al.,* 2001). Barney *et al. (*2006) discovered that both perceived stigma and self-stigma of mental health problems were found to have a negative impact on participants' inclination to seek professional help for depression.

Old age

de Mendonça Lima *et al.* (2003) wrote about the shame attached to both mental illness and old age, creating a double stigma for an increasing number of individuals. However, within the literature there is an apparent lack of knowledge, understanding, and even awareness of this phenomenon (Thomas & Shute, 2006).

Ageism

The term 'ageism' was coined in 1969 to refer to "a deep-seated uneasiness…a personal revulsion to and distaste for growing old…" (Butler, cited in Nemmers, 2004, p.13). Ageism is commonly attributed to young people and middle-aged adults; however, the Alliance for Aging Research (2003) suggested that ageism is unconsciously a part of the psychology of older people, which can impact on medical outcomes.

Older people using mental health services

Research has consistently found that older adults greatly underutilize mental health services (Hatfield, 1999; Qualls *et al*., 2002; Robb *et al*., 2002). Hadas and Midlarsky (2000) investigated predictors of, and barriers to, mental health service use amongst older adults with mental health problems. They found that the majority of the older adult participants felt responsible for causing their own problems and for solving them, without the help of services.

Sirey, Bruce, Alexopoulos, Perlick, Raue, *et al.* (2001) looked at perceived stigma of mental health problems as a predictor of treatment discontinuation amongst young and older adults with depression. It was found that for the older adults greater perceived stigma of mental health problems was associated with a greater likelihood of treatment discontinuation. This treatment dropout is possibly a result of the actual, or anticipated, stigmatization experienced. Another possibility is that this stigmatization has become internalized and that these individuals are actually self-stigmatizing.

This study is interested in trying to make a connection between mental health stigma, ageism and self-stigmatizing behaviours. Additionally, it is intended to explore whether a group of older people currently using mental health services show evidence of self-stigmatization with regards to their mental health problems and age, and whether this affects their likelihood to continue engaging with the mental health services they currently access.

Hypothesis 1

Based on the literature demonstrating links between experiencing mental health stigmatization and a decrease in, or lack of, engagement with mental health services it was predicted that there would be a negative correlation between self-stigmatizing towards age and engaging with mental health services.

Hypothesis 2

Based on Corrigan and Watson's (2002) model of self-stigma it was felt that there would be a positive correlation between the level of perceived stigma participants had towards their age and/or mental health problem, and the amount that they self-stigmatized.

Hypothesis 3

Links in the literature between stigma and lowered self-esteem led to the prediction that there would be a negative correlation between the stigma experienced and participants' level of optimism.

Hypothesis 4

This study also predicted a positive correlation between level of optimism amongst participants and the distance they placed themselves from the label of 'old'. The reason behind this prediction was that it was felt some older people do not identify with their peers, and therefore, retain their self-esteem by thinking that ageist attitudes are not directed towards them.

Methods

Fourteen community dwelling older people (65-91 years) agreed to participate in the research, with just over a half of the participants being female (N=8). They were approached by mental health professionals known to them through the services they accessed. Consent was given by signing a consent form and returning it to the researcher, who then contacted the individual to arrange the interview. Participants had the right to withdraw at any time and all data was anonymised. The participants were recruited from three different counties across England and Wales. These sites were chosen because the researcher had links to these areas through work.

Participants were deemed suitable to take part if they were currently accessing mental health services, were cognitively able to take part in the research interview and had a good understanding of English. The participants were recruited from community older peoples' psychology services and from a day hospital for functional mental health problems amongst older people. However, recruitment proved problematic, with only a small sample collected. In order to try and raise the statistical power of the study it was decided to use an alpha error of 10%.

Design

This study was a mixed quantitative-qualitative correlational design. During the research interview each participant completed three brief questionnaires: The General Health Questionnaire – 12 (GHQ-12) (Goldberg, 1992), The Stigma Scale (King *et al.,* 2007), and the Life Orientation Test-Revised (LOT-R) (Scheier, Carver & Bridges, 1994). After completion of these questionnaires the participant completed a repertory grid (Kelly, 1955) with the researcher, and gave a rating on an 11-point scale as to their likelihood to continue to use mental health services.

Ethics

Ethical approval for this research study was granted by the local Research Ethics Committee, as part of the National Research Ethics Service of the NHS. Approval from each of the Research and Development (R&D) committees for each NHS Trust used in the study was also gained before any research activity took place in that specific NHS Trust.

Participants were fully informed of the research before they agreed to take part and their consent was again gained prior to the research interview. Participants were also informed of who to contact within their NHS Trust should they become distressed by any aspect of the research process.

Measures

The GHQ-12 provided a baseline measure of distress for each participant. This could then be correlated with other measures. The LOT-R assessed how optimistically the participants felt about their future. This score could then be correlated with scores for stigma and self-stigmatization.

The Stigma Scale (King *et al*., 2007) provides a standardized measure of the stigma of mental illness. The 28 questions are split into three sub-scales: Discrimination from others, Disclosure of the mental health problem, and recognising Positive Aspects of having mental health problems. The stigma scale does not address self-stigma per se, rather it focuses on the incidents of mental health stigma that the individual has experienced and the effect they have had on their life.

Following these questionnaires the participant developed a repertory grid (Kelly, 1955) with the interviewer. Winter (1992) describes the repertory grid as 'a structured interview', allowing the researcher to look through the 'goggles' of the participant's construct system. The repertory grid in this study was designed specifically to focus on participant attitudes towards age. The supplied elements, in order as they appeared on the grid, were: self now; ideal self; self as a middle aged adult; self as a young adult; how you see older people; how other people see you now; how other people saw you as a middle aged adult; how other people saw you as a young adult; how other people see a typical older person; how other people see a typical middle aged adult; and, how other people see a typical young adult. The constructs were elicited using the triad method, and the elements were then rated for each construct on a 1-7 scale, where 1 and 7 represented the two poles of the construct.

An 11-point rating scale was designed specifically for this research project as a quick and simple method to assess each participant's likely future engagement with mental health services. The scale went from 0-10, with 0 indicating a participant would not continue to use mental health services, and a score of 10 indicating a participant would definitely continue engaging with services.

No measure of self-stigma of mental health problems was used as the ones currently available either were not deemed suitable for the needs of this research project, or they were not in general circulation. Therefore, only self-stigma of age was formally assessed.

Analyses

Idiogrid (Grice, 2002) was used to analyse the repertory grid data and the SPSS package was used to carry out the correlational analyses. The following measures were derived from Idiogrid: a measure of self-stigmatization, a measure of perceived stigma, a measure of stigma experienced, a measure of how much participants distance themselves from the label of 'old', the percentage Sum of Squares score accounted for by the construct 'old', and the percentage of variance accounted for by the first principal component.

The first four measures were based on 'element distances', which indicate the degree of construed dissimilarity between pairs of elements (the higher the distance the more dissimilar the elements concerned).

1) Self stigmatization was measured by subtracting the average distance between the ideal self and self at middle age and self as young adult elements from the distance between the ideal self and self now elements. The overall score will give an indication of how far the self now is viewed as having moved away from the ideal self since young and middle aged adulthood, and hence of stigmatization of the self as an older person. This score will be used as the measure of self-stigmatization in testing Hypothesis 1.

2) Perceived stigma was calculated by subtracting from the distance between the ideal self element and others' perceived view of older adults the mean distance of the ideal self from others' perceived views of middle aged adults and of young adults. The higher this score the more the participant considers that others view older people less

favourably (as assessed by distance from the participant's own ideal self) than people of younger ages. Since this measure reflects the level of perceived negativity towards older people in general, it is assumed that it can be used to indicate the awareness of stigma towards old age in testing Hypothesis 2.

3) Stigma experienced was measured by using the distance between the ideal self and others' view of self now elements minus the average distance of the ideal self versus others' view of self middle aged elements and the ideal self versus others' view of self as young adult elements. The greater this distance the more dissimilar the participant's construing of their ideal self to how they believe they are seen by others when compared with the view of themselves at younger ages.

This measure is designed to indicate whether the individual considers that s/he is perceived more negatively by others (reflected in dissimilarity to the individual's ideal self) now than at younger ages. A high score might be regarded as indicating that the individual experiences stigma towards their age. This score will be used as the measure of experienced stigmatization towards age in testing Hypothesis 3.

4) To measure how far the participant places themselves from the concept of 'old age' the distance between the self now element and the participant's view of older people element was calculated. The bigger this distance the more the participant tries to separate themselves from the label of 'old'. This score will be used in testing Hypothesis 4.

5) The percentage Sum of Squares score identifies the superordinancy of constructs, which indicates which constructs are most important to participants (Bannister & Salmon, 1967; cited in Winter, 1994). Therefore, by looking at the 'old-young' construct within the table for the Sum of Squares scores it can be calculated how important this construct is to that participant. As there are 12 constructs within the repertory grid a score of 8.33 would mean each construct was rated equally by the participant. Any score above this would indicate that this construct is of relatively high importance to the participant.

This measure is not related to a specific hypothesis, but rather it adds richness to the data collected and contributes to the overall aim of this thesis in examining attitudes towards old age amongst a sample of older people.

6) The principal component analysis identifies those constructs which have the highest level of inter-relatedness. The percentage variance of the first component of this analysis indicates the tightness of construing the participant demonstrates (i.e. how much their beliefs are resistant to change). The larger the percentage the tighter their construing.

Again this measure does not relate specifically to the hypotheses, but rather gives additional insight into the construct system of the participants, highlighting those constructs which are most important to this sample of older people. This data might add weight to any conclusions drawn, or provide a fuller picture of the belief systems of this group of older people.

The Spearman's Rho was used to assess the significance of any correlations found. A non-parametric measure was chosen because of the small sample size which meant that it could not be assumed that this was a 'normal' sample, representative of the population as a whole. Due to the small sample size and the possibility that the study would lack statistical power it was decided to test the results at a 10% level of significance. This would help to raise the power of the study's findings.

Results

The descriptive statistics for each of the study variables can be found in Table 1. As can be seen the mean and median scores are very similar across all variables, and therefore the mean score will be used when discussing the results.

The mean Distress level score for the sample, based on the GHQ-12, was 3.14 which falls just above the cut-off score of evidence of distress. This finding is to be expected in a sample of mental health service users.

With regards to mental health stigma, the participants of this study, on average, reported experiencing a great deal less stigma than those on whom the scale was originally normed. This means that the level of stigma experienced amongst this sample was low. Each of the subscale scores for the Stigma Scale also fall below the means of the original norm sample.

On average, this group of older people was slightly less optimistic than those participants on whom the LOT-R was originally normed, scoring on average 1-2 points lower. Even though some participants expressed a low level of optimism for

the future, all participants spoke of being likely to continue to use the mental health services they were presently accessing, with a mean score of 8.71 (maximum score 10).

The results from the repertory grid measures highlight the range of experiences of age-related stigma that these participants have had. The mean self-stigmatization score suggests the group as a whole show very minimal signs of internalizing age-related stigma with a mean score of .37. However, some participants did show evidence of self-stigmatization with one participant scoring 1.06 (scores on this measure range from a minimum of approximately -2.0 to a maximum of approximately +2.0). The higher the score on the repertory grid measures the more the individual sees themselves as having moved away from their ideal situation in relation to age. Additionally, the lower the score the more the person sees themselves as having moved closer to their ideal and, if they score 0 then there has been no movement in how they see themselves now in relation to their ideal age.

The second repertory grid measure for perceived age stigma suggested that as a whole this group of older adults do not show signs of perceiving stigma towards themselves because of their age (mean score .03). The range of scores for this measure though is large (range 2.55), with some participants demonstrating some levels of perceived age stigma (with a high score of 1.18). However, on the whole it can be suggested that this group of participants were generally unaware of any stigma towards their age.

The measure for stigma experienced also has a large range of scores (2.06) but the overall mean score is very low (.13), suggesting that these participants generally experienced very low levels of stigma towards their age.

The fourth repertory grid measure found that the group did show signs of distancing themselves from the label of 'old' (mean .74), but that these scores were not particularly high.

When examining the importance of the construct 'old - young' within the repertory grid the fact that there are 12 constructs means that if each construct was given equal importance by the participant, a percentage Sum of Squares Score of 8.33 would be expected. As can be seen within Table 1, the mean score for this variable is 11.14, which suggests that the construct of 'old - young' holds quite a high level of importance, on average, for these participants. The last variable to describe is the degree of tightness of construing (Principal Component 1), with higher values indicating a greater level of tightness of construing. As a whole, this group are generally 'tight' construers, which means that the participants in this group tend to make unvarying predictions about the world based on their belief systems (Winter, 1994).

Table 1: Descriptive statistics of the study variables (sample size = 14)

	Age	Stigma Score	Dc Score	D Score	P Score	LOTR Score	GHQ12 Score	0-10 Rating Scale	Grid Measure 1 (self-stigmatization of age)	Grid Measure 2 (perceived stigma towards age)	Grid Measure 3 (age stigma experienced)	Grid Measure 4 (difference between self and view of older people)	% Sum of Squares old - young (grid)	Principal Component 1 (grid)
Mean	76.79	29.43	9.57	12.21	7.64	13.64	3.14	8.71	.37	.03	.13	.74	11.14	63.24
Median	76.0	23.50	7.0	10.50	7.50	15.00	.00	9.00	.34	-.03	.19	.75	11.96	59.9
Std. Deviation	7.89	19.56	8.68	10.84	2.47	5.68	5.43	1.44	.38	.78	.59	.27	5.94	14.59
Standardized norm (mean)	N/A	62.6	29.1	24.9	8.8	14.33 - 15.16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Range of scores	26	59	24	35	9	21	18	4	1.52	2.55	2.06	.90	20.89	46.93
Minimum (participant score)	65	6	0	2	3	3	0	6	-.47	-.1.37	-.93	.29	1.33	43.40
Maximum (participant score)	91	65	24	37	12	24	18	10	1.06	1.18	1.13	1.19	22.22	90.33
Max. possible score	N/A	112	48	44	20	24	24	10	Approx. 2.0	Approx. 2.0	Approx. 2.0	Approx. 2.0		100
Cut-off score	N/A	N/A	N/A	N/A	N/A	N/A	2+	N/A	N/A	N/A	N/A	N/A	8.33	N/A

Key:
Dc = Discrimination subscale of Stigma Scale
D = Disclosure subscale of Stigma Scale
P = Positive Aspects subscale of Stigma Scale
LOTR = Life Orientation Test-Revised
GHQ12 = General Health Questionnaire-12
Hyp = Hypothesis
% Sum of Squares
Principal Component 1

Hypotheses

Contrary to what was predicted in Hypothesis 1, there was no correlation between the repertory grid measure of self-stigmatization and the Likelihood to Continue to Use Services Scale.

Hypothesis 2 was also disproved on both measures with no correlation between the overall Stigma Score and the repertory grid measure for self-stigmatization, and no correlation between the repertory grid measure of perceived age-stigma and the repertory grid measure of self-stigmatization of age.

Hypothesis 3 test one, explored any correlation between the Stigma Scale and the LOT-R scale. However, none was found. Test two looked for a correlation between the repertory grid measure for stigma experienced and the LOT-R. Again, no correlation was found, meaning that the amount of stigma experienced did not have a bearing on how optimistic a participant would be about their future.

Hypothesis 4 studied the correlation between the LOT-R and the repertory grid distance between the participant's view of themselves and their view of older people (which would indicate how far they distanced themselves from the label of 'old' in their construct system). Again, no correlation was found, disproving this hypothesis.

Additional exploratory analyses

The repertory grid measure for stigma experienced (age) was also correlated with the repertory grid measure for self-stigmatization (age). This was moderately correlated at

Table 2: Analysis of hypotheses (Sample size – 14 participants)

Hypothesis	Spearman's Rho correlation	P value (1 tailed)	Decision on hypothesis
1. The more the participant self stigmatizes the less likely they are to continue to engage with services *measured by:* Repertory grid measure of self-stigmatization v. Likelihood to continue to use services scale	.07	.41	No correlation - rejected
2. The more awareness the participant has of stigma towards their age and/or mental health problems, the more they will self-stigmatize *measured by:* c) Stigma Scale score v. repertory grid measure of self-stigmatization	-.19	.26	No correlation – rejected
d) Repertory grid measure of perceived stigma v. repertory grid measure of self-stigmatization	.13	.32	No correlation - rejected
3. The more stigmatization the participant has experienced the less optimistic they will be about their future *measured by:* c) Stigma Scale score v. LOTR score	-.06	.85	No correlation – rejected
d) Repertory grid measure of stigma experienced v. LOTR score	.05	.43	No correlation - rejected
4. Those participants who are more optimistic will be more likely to distance themselves from the label of 'old' *measured by:* LOTR scores v. repertory grid measure of 'old'	.07	.80	No correlation - rejected

.55 (p-value .02, one-tailed), indicative that the repertory grid measure for age stigma experienced correlates positively with the measure for self-stigmatization of age. Based on this effect size, the observed power for this calculation using the GPower3 programme for a post-hoc analysis was 81%, which is a high level of power.

To explore this further the repertory grid measure for perceived age stigma was correlated with the repertory grid measure for age stigma experienced. This however, did not produce a correlation, with a correlation coefficient of .10 (p-value .38, one-tailed). Therefore, the repertory grid did identify some self-stigmatization which was

associated with experiencing age stigma, but the results indicate that perceiving age stigma alone is not sufficient for self-stigmatization of age to occur.

The small sample size might have played a part in the lack of significant findings amongst the repertory grid measures as Winter (2003) states that a sample size of at least 20 is 'generally considered necessary to provide sufficient statistical power when using repertory grids in research' (p.33).

Discussion

This research project was designed to explore self-stigmatization of age, and to consider the concept of self-stigmatization of mental health problems, amongst a group of older people who were using mental health services at the time.

All hypotheses for this study were disproved, which might indicate that for this group of older people with mental health problems there is no relationship between experiences of mental health and age-stigma and self-stigmatizing behaviour, predicted future use of mental health services, optimism, and how closely they identify with the label of 'old age'. However, other factors could account for the lack of significant findings, such as the small sample size. Additionally, hindsight has indicated that there might be important demographic information which might have had a bearing on the responses given by participants which was not originally collected.

What can be taken from the results though is the finding that being aware of stigma is not sufficient for it to be internalized. A number of the participants did report self-

stigmatizing because of their age; however, this was not correlated with perceiving age-stigma. However, there was a significant correlation between experiencing age-stigma and internalizing it, which supports the original model of self-stigma (Corrigan & Watson, 2002) which this research study was based upon.

Implications

The levels of self-stigmatization towards age were lower than had been anticipated, but as the sample size was so small it is not possible to generalize these results to the wider population. However, it is possible to extrapolate the number of participants who showed signs of self-stigmatization into the larger population. Four out of fourteen participants showed evidence of self-stigmatization of any note which equates to 28.6% of the sample. Therefore, if one was to consider the service users of older peoples' mental health services, from the finding of this thesis it can be hypothesised that nearly 29% of those individuals would show evidence of self-stigmatization towards their age. Therefore, mental health professionals need to keep an open mind as to how an older person engages with the service, or responds to psychotherapeutic interventions, as this may be affected by self-stigmatizing behaviour because of their age. The finding of this research could perhaps help older people's mental health services consider how they inform older people of services available and whether there is anything that can be done to overcome the self-stigmatization of age that it is now known does occur in some older people with mental health problems.

Limitations

The small sample size may have been a factor in the fact that none of the hypotheses were supported, however, as was found with some of the further analyses there was sufficient statistical power within the study to identify significant correlations. However, the small sample size would still suggest a general lack of power within the study. It was for this reason that the alpha error level was increased to 10%, thereby increasing the power of the study to some extent.

Difficulties in recruiting older people to research studies is a known phenomenon (Thompson *et al.,* 1994), and therefore, in future research it might be worth accessing a research panel of older people who have already expressed an interest in participating in research.

The lack of a formal measure of self-stigma of mental health problems prevented this project from fully assessing the extent of self-stigma amongst older people with mental health problems. In hindsight, the repertory grid could have been designed to include elements which addressed mental health. However, at the time of the study design the researcher was concerned with keeping the interview time to a minimum so as to not overburden the participants, and to not discourage potential participants with a lengthy time commitment.

As a result of the decision to keep the research interview concise certain demographic information was not collected which might have added further insight into the data collected. This information includes details of living arrangements and support networks the participants had, which might have a bearing on someone's level of distress or optimism. Additionally, asking about any losses or bereavements would

give further background information, as would physical health status. Information as to each participant's history of engagement with the mental health services would also aid in interpreting their likeliness to continue to use services. These are all variables which could be explored in any future research which was conducted in this area.

Further research

These participants seem to be coping well with the consequences of having both mental health problems and being an 'older person'. Therefore, using a larger sample size is necessary to further explore ageism and self-stigma amongst older people to try and pinpoint the reasons behind people's resilience, or not, to stigma and self-stigma of age and mental health problems.

Counterfactual thinking involves the thoughts or statements people use when exploring past memories in order to investigate alternative outcomes. These thoughts have been referred to as 'what if' and 'if only' thoughts. It is possible that older people use counterfactual thinking to imagine how much worse off they could have been, and therefore their current life does not appear so bad. Alternatively, habituation is the process of having a decreased emotional response to repeated stimulation (Groves & Thompson, 1970). The individual appears to have built up resilience to this distressing stimulus. The concept of emotional habituation is similar to that proposed by psychological immunization, which refers to a process where people develop resistance to adverse life events through repeated exposure (Henderson *et al.*, 1972). It is possible that this cohort of older people had to deal with great adversity in their youth due to growing up in WWII and living with the after-effects in economy. As a result it is likely that these participants learnt coping skills which have remained with

them to this day, helping them cope with challenges in later life which previously they might have not been equipped to deal with so well. Another variable which was not studied in this research, but might have had an impact on participants' presentations, is the amount of support they had from family and friends, and also whether they felt they had an identity within their local community. These are all factors which could be studied in future research to gain greater insight into self-stigmatization amongst older people who have mental health problems.

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