Health Psychology

A Portfolio of Work and Practice Including:

Job loss, professional workers and health outcomes:

A qualitative study

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Glossary of Abbreviations:

ACT- Alain Aminotransferase

AST- Aspartate Aminotransferase

BBC- British Broadcasting Corporation

BME- Black Minority Ethnic

BMI- Body Mass Index

BP- Blood Pressure

BPS- British Psychological Society

Brief-IPQ- Brief Illness Perception Questionnaire

CBT- Cognitive Behavioural Therapy

CIPD- Chartered Institute for Personnel and Development

COPD- Chronic Obstructive Pulmonary Disease

CRF- Cardiorespiratory Fitness

CTO- Unscheduled Combined Time Off

DBP- Diastolic Blood Pressure

DWP- Department for Work & Pensions

ELT- English Language Tutor

ESA- Employability Support Allowance

FBS- Fasting Blood Sugar

FCIC- Financial Crisis Inquiry Commission

GDP- Gross Domestic Product

GDR- General Deficit Resources

GRR- General Resistance Resources

HbA1c- Blood Sugars via glycosylated haemoglobin

HCP- Healthcare Professional

HCPC- Health and Care Professional Council

HDL- High Density Cholesterols

HR- Human Resources

IAPT- Improving Access to Psychological Therapies

IMF- International Monitory Fund

ILO- International Labour Organisation

IPA- Interpersonal Phenomenological Analysis

IRI- Serum Insulin

JSA- Job Seekers Allowance

LDL- Low Density Cholesterols

MI- Motivational Interviewing

MSK-Musculoskeletal

NFR- Need for Recovery from Work

NHS- National Health Service

NSS- Nursing Stress Scale

OH- Occupational Health

ONS- Office for National Statistics

OT- Occupational Therapist

PSS- Perceived Stress Scale

QQ- Quality & Quantity Measure

RJS- Recessionary Job Stress

SOC- Sense of Coherence

SP- Systolic Blood Pressure

TC- Total Cholesterol

TG- Triglyceride

UK- United Kingdom

UN- United Nations

UNCTAD- United Nations Conference on Trade and Development

US- United States

WAI- Work Ability Index

WC- Waist Circumference

WHO- World Health Organisation

WQL- Work Limitations Questionnaire

W- Weight

y-GPT- Gamma-Glutamyl Transpeptidase

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Declaration

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Section A: Preface

Preface

Overview

This portfolio was compiled using practice demonstrations from my professional role as London Senior Health Advisor for a U.K. based Welfare to Work provider. The provider specialised in supporting the unemployed via government contracts back into the workplace. To complete key competencies, I negotiated with my workplace various opportunities. This allowed me to demonstrate a broad range of skills and expertise required to reach Health Psychology status.

The primary aim of my role was to assist all unemployed clients with known psychological health diagnoses, (e.g. schizophrenia, depression and anxiety disorders) and/or exhibiting maladaptive coping strategies, (e.g. social isolation, unhealthy eating, misuse behaviours, low motivation etc.) to better manage their health and return to working life. Clients were people whom were unemployed for over one year and referred to my workplace by local Job Centre Plus offices. Support was achieved through both one-to-one and group settings using evidence based approaches from Cognitive Behavioural Therapy (Leahy, 2003; Powell, 2003) and Motivational Interviewing (Miller and Rollnick, 2012)

As a senior member of staff, I also managed a team of junior healthcare professionals whom supported clients across nine London based offices. Management included regular supervision and training of my team in health psychology based theory and practices. In addition, my role required involvement at a strategic level in areas such as creating and implementing health promotion interventions for the company's staff across both London and U.K. and advising fellow senior healthcare colleagues from other disciplines in Health Psychology approaches. Finally, I also agreed to extra duties and became a workplace supervisor for a member of staff trying to complete their Masters in Mental Health Studies through Kings College London. The supervisory role required me to oversee dissertation stages and monitor practitioner competencies via wellbeing workshops.

The following sections will briefly introduce how I demonstrated the competencies set in the Doctorate of Health Psychology.

References:

- Leahy, R. (2003). Cognitive therapy techniques. A practitioner's guide. London: The Guilford Press.

- Miller, W. R., & Rollnick, S. (2012). *Motivational interviewing: Helping people change*. Guilford press.

- Powell, T. (2003; revised ED.). The mental health handbook. Bicester, UK: Speechmark Publishing Ltd.

Section B

Unit B.1: Research

After the credit crunch of 2008 the pool of unemployed clients referred to my workplace had a larger number of professional white-collar workers than before. Where previously, such workers would leave their roles out of choice and be quickly recruited into their next career-enhancing post, professionals were now being made redundant due to business cuts and finding it difficult to secure new positions. This sparked an interest in how unemployed professionals concluded their new situations of longer than anticipated unemployment and how this affected their health. I also felt it was a professional responsibility to enquire whether the support systems in place would benefit unemployed professionals by helping them manage any health concerns and find work.

As such, the aim of the study was to investigate how unemployed professionals made sense of their life after job loss and how these changes effected both psychological and physical health. Finally, I wanted to investigate how certain professionals stayed healthy during such adverse times and extract their coping strategies to recommend in future interventions for this group.

Participants were recruited from my workplace and Third Sector organisations providing re-employment support. This exploratory research used principles from Interpretative Phenomenological Analysis (IPA; Smith, 1996) to investigate participants' world views whilst health promoting strategies were identified using Antonovsky's Sense of Coherence Model (SOC; Antonovsky; 1987).

From the results, all participants understood the business needs of job cuts including their own redundancy. However, those that seemed to be coping unhealthily were participants who internalised the specific job loss as a loss of their professional identity and viewed it as a time of shame. In these cases, participants struggled to understand their new situation of unemployed life and how to regain the focus needed to find work. This resulted in maladaptive coping such as inactivity, unhealthy eating, alcohol misuse and social isolation.

When considering health promoting factors, participants who clearly viewed their job loss as a non-representation of their overall professional identity, coped better. For example, participants ensured they stayed physically active, ate healthy and sought out support from Welfare to Work provision, Welfare to Work health services, friends and family.

References:

- Antonovsky, A. (1987). Unravelling the mystery of health: how people manage stress and stay well. San Francisco: Jossey-Bass.

- Smith, J.A. (1996). Beyond the divide between cognition and discourse: Using interpretative phenomenological analysis in health psychology. *Psychology & Health.* Volume 11: 261-271.

Unit B.2: Publishable Articles

As an additional requirement of City University, four Health Psychology based articles were written with the aim of being both published in peer-reviewed journals, psychology body magazines or used to influence future health promoting strategies in U.K. governing bodies.

Article 1

Although previous Welfare to Work programmes have assisted individuals back into sustainable work, there is a common agreement in both the industry and government that support systems are not fully reaching unemployed clients with long term health conditions or disabilities. As such, the Department for Work and Pensions (DWP) has proposed a new Work and Health programme to be designed and launched by Welfare to Work providers at the end of 2017, (DWP; 2017).

To help with intervention proposals, I wrote an article for DWP policy researchers with the aim of providing Health Psychology based guidance for the Work and Health proposal. As a health specialist in this industry I believe that the use of Health Psychology based theory such as Leventhal's Self-Regulatory Model (1984) would improve the identification of health needs and how to best support such clients. The article therefore aimed to explain the model and how illness perception can strongly influence clients view of health management and therefore future employment prospects. It

provided practical recommendations such as the use of the Brief Illness Perception Questionnaire (Brief-IPQ; Broadbent, Petrie, Main and Weinman, 2006) when assessing clients' initial cognitive and emotional perceptions of illness and the inclusion of illness perception principles in employment advisory staff training.

References:

- Leventhal H.; Nerenz, D.R. and Steele, D.J. Illness representations and coping with health threats. In: Baum, A.; Taylor S.E.; Singer, J.E. editors. Handbook of Psychology and Health. Volume IV: social psychological aspects of health. Hillsdale, N.J: Erlbaum, 1984: pp. 219-252.

- Broadbent, E; Petrie, K; Main, J. and Weinman, J. (2006). The Brief Illness Perception Questionnaire. *Journal of Psychosomatic Research*. Volume 60 (6): 631-637.

- Work and Health Programme Press Release. Retrieved from: https://www.gov.uk/government/news/work-and-health-plan-to-help-cdisabled-people-into-employment.

Article 2

In the workplace, the implementation of health promotion programs for employees is commonplace, with employers becoming more aware of the association between good staff health and productivity (Stuafaker, 2011). As the workforce is ageing, health promotion interventions are geared to help reduce the risks of long-term health conditions such as musculoskeletal disorders, (MSK), (Murray, Franche, Ibrahim, Smith, Carnide et.al., 2013). Such disorders can affect employees throughout their working lives, whilst employers risk business losses through increased sick leave and early

retirement. Although health promotion interventions are designed with the best intentions, their uptake by employees depends on a variety of factors.

The aim of the article was to provide consultancy guidance on the importance of both employer and employee buy-in for MSK based workplace health interventions to succeed. Written for Arthritis UK the article provided guidance on the following:

- The need to integrate health promotion interventions into the ethos of the company.
- Ensure behavioural change interventions married well with Health & Safety protocol.
- Increasing internal motivation by inviting employees onto design and implementation phases.
- The use of evidence based strategies, (e.g. Schein, 1996), to secure effective design, implementation and evaluation.

References:

- Murray, E.; Franche, R-L.; Ibrahim, S.; Smith, P.; Carnide, N.; Cote, P.; Gibson, J.; Guzman, J.; Koehoorn, M. and Mustard, C. (2013). Pain-related work interference is a key factor in worker/workplace model of work absence duration due to musculoskeletal conditions in Canadian nurses. *Journal of Occupational Rehabilitation.* Volume 23: 585-596.

- Schein, E.H. (1999). Process consultation revisited: Building the helping relationship. MA: Addison-Wesley.

- Stuafaker, M. (2011). The insider's business briefing on managed healthcare. Managed Outlook. Volume 24 (7): 1-5.

Article 3

As my maternity leave was finishing, I received voluntary redundancy from my employer. Given I was in the write up phases of my thesis, I decided to focus on my doctorate and be a home-stay mother to my son and step-daughter. This personal experience, coupled with findings from my research into the loss of professional identity after redundancy spurred the interest in writing this article.

The aim was to write an article for peer-led magazine (e.g. The Psychologist) that highlighted psychological considerations during the transition phase for mothers back into employed life. The article therefore gave an overview of the stressors in trying to regain one's professional identity and the need to prove to both family and employers that return to work mothers are both good parents and employees, (Alstveit, Severinsson and Karlsen, 2011). It highlighted mothers' internal battles of guilt from having to leave their children in other peoples' care, reduce breast-feeding time and pressures to compromise by opting for part-time work. The article finished with recommendations of better support for return-to-work mothers earlier on in maternity leave and the importance of clear communication between mothers, key family members and employers.

References:

- Alstveit, M.; Severinsson, E. and Karlsen, B. (2011). Readjusting one's life in the tension inherent in work and motherhood. Journal of Advanced Nursing. Volume 67 (10): 2151-2160.

Article 4

The final article aimed to describe my role as Trainee Health Psychologist in Welfare to Work provision and the need for further Health Psychology involvement in this industry. Pending publication via Health Psychology Update, the article first explains the U.K. government's position in supporting the unemployed back into work through large scale contracts such as the Work Programme, (DWP, 2012). These contracts run by private providers enable clients to access both re-employment and health support.

Given unemployment can threaten peoples' health status and entice the use of risk behaviours, Welfare to Work provision is a platform where Health Psychologists can contribute. The article finishes with examples in how Health Psychology practices were applied by designing behavioural change interventions through psychologically based theory. For example, using Lazarus and Folkman's Transactional Model of Stress Management, (1984) when designing stress management workshops for clients and applying the Transtheoretical Model of Behaviour (Prochaska and Diclemente, 1982), to pin-point clients' levels of motivation in changing risk behaviours.

References:

- Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. New York, NY: Springe.

- Prochaska, J.O. and Diclemente, C.C. (1982). Transtheoretical therapy: toward a more integrative model of change. *Psychotherapy: Theory Research and Practice.* Volume 19: 276-288.

- The Work Programme. Department of Work & Pensions. (December, 2012). www.dwp.gov.uk .

Section C: Professional Practice

Teaching and Training: Case Study 1

The first case study describes the design, implementation and evaluation of a two-part stress management teaching session delivered to clients from black and ethnic minority backgrounds with basic English language levels. The case study highlights the processes required between design, implementation and evaluation stages whilst it additionally documents adaptations necessary to develop teaching sessions for this specific cohort. The aim of the case study was to provide clients basic skills in stress management through theoretical approaches, (Lazarus and Folkman; 1984) and place clients at ease in asking for future psychological support from myself or local health services. Although only a two-part course, the sessions enabled clients to review their own stress management coping methods and learn health promoting strategies to make any changes needed. Overall feedback from clients was positive.

References:

- Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. New York, NY: Springe.

Teaching and Training: Case Study 2

The second case study is a description of a singular training session delivered to Welfare to Work senior health advisors on the importance of cultural considerations when supporting unemployed Black Minority Ethnic clients with health concerns. As a senior health advisor with a Health Psychology background the aim was to present to peers from other health backgrounds, Health Psychology principles and discuss during the training how they envisaged its application in both theirs and junior staff practices.

As such, the training introduced attendees to the definition of culture (Linton, 1945) and its effects on health behaviours through published research, (Iqbal, Johnson, Szczepura, Wilson, Gumber and Dunn, 2012). In addition, the training considered health related communication styles across nationalities, (Gasparik, Abram, Lorincz and Ceana, 2012) and opened discussions on the use of psychologically based theory such as the Health Locus of Control (Wallston and Wallston, 1982) when discussing cultural influences on health behaviours. Although the training was short at 1.5 hours, the feedback from attendees was overall positive.

References:

- Gasparik, A.I., Abram, Z., Lorincz, E.A. and Ceana, D.E. (2012) Particularities of communication between doctor and patient. Comparison of results of an evaluation from Romania with similar data from Japan and the Unites States of America. Public Health and Management Volume 11 (3): 163-164.

- Iqbal, G., Johnson, M. R., Szczepura, A., Wilson, S., Gumber, A., & Dunn, J. A. (2012). UK ethnicity data collection for healthcare statistics: The South Asian perspective. *BMC public health*. Volume 12(1), 1.

- Linton, R (1945). The Cultural background of Personality. New York: Appleton-Century-Crofts.

- Wallston, K.A. and Wallston, B.S. (1982). Who is responsible for your health? The construct of health locus of control, in G.S. Sanders and J. Suls (ed), Social Psychology of Illness and Health, pp. 65-95. Hillsdale N.J.: Erlbaum.

Consultancy

The case study described the design, implementation and evaluation of a health promotion intervention for Welfare to Work staff. Approached by my company's Human Resources (HR) Director the aim was to help reduce absence leave from stress and musculoskeletal concerns whilst increasing the use of private healthcare available to employees. Given the HR Director wanted an informational approach, a literature review was conducted to assess the efficacy of web-based (McDonald, 2011) and leaflet- based (Garner, 2011) approaches. Using the Doctor/Patient Style Communication Style of consultancy (Schein, 1999), I discussed with the HR Director proposals for the interventions content and the use of employees as Health Champions (Linnan, Edwin and Hood, 2013) to increase staff up-take.

The consultancy was testing as it involved myself taking on the role of consultant in my own workplace. However, this was also an opportunity to test this role and learn from consultancy approaches (Schein, 1999) on how to apply myself in this specific competence. Once completed an Executive Report was written, summarising the effectiveness of the health promotion intervention in increasing health awareness amongst staff, reducing sickness absence and recommendations for future interventions.

References:

- Garner, M. (2012). A framework for the evaluation of patient information leaflets. *Health Expectations: An International Journal of Public Participation in Health Care and Health Policy (1369-6513).* Volume 15 (3): 283.

- Linnan, L; Edwin B. F. and Hood, S. (2013). The power and potential of peer support in workplace interventions. *American Journal of Health Promotion*. Volume 28 (1): TAHP2-10.

- MacDonald (2011). Evaluation of online health & wellness resources for healthcare professionals. *International Journal of Advanced Corporate Learning.* Volume 4 (2).

- Schein, E.H. (1987). Process consultation volume 2: Lessons for managers and consultants. Reading, MA: Addison-Wesley.

Behaviour Change Intervention

The case study documented the delivery of a CBT (Powell, 2003) and Motivational Interviewing (Miller and Rollnick, 2012) based approach for a client exhibiting several health behaviours detrimental to their health status and return to work. Through the Bio-Psycho-Social Approach (Engel, 1973) it became apparent the client had various life circumstances which influenced their approaches to health management and job-seeking. Coupled with a physiological diagnosis which threatened body image and fertility, the client expressed losses in both health improvement and re-gaining work. Together we agreed to initial one-to-one and later workshop support approaches, with the aim of addressing maladaptive coping strategies and alleviating social isolation. In addition, sessions were designed in a teaching capacity to allow the client the chance to learn the theory behind approaches (e.g. Transtheoretical Model of Behaviour by Prochaska and Diclemente, 1982) and provide opportunities for them to present their progression. The client completed the intervention and felt ready to manage their health for the better whilst also testing their re-employment abilities in mock interviews.

References:

- Engel GL. (1977). The need for a new medical model: a challenge for biomedicine. *Science*. Volume, 196: 129–36.

- Powell, T. (2003; revised ED.). The mental health handbook. Bicester, UK: Speechmark Publishing Ltd.

- Prochaska, J.O. and Diclemente, C.C. (1982). Transtheoretical therapy: toward a more integrative model of change. *Psychotherapy: Theory Research and Practice.* Volume 19: 276-288.

- Miller, W. R., & Rollnick, S. (2012). *Motivational interviewing: Helping people change*. Guilford press.

Section D: Systematic Review

We live in a world that is rapidly ageing and with younger populations becoming less than those reaching retirement ages, (Gibson 2014; Eurostat; 2016). When considering the workplace, this has also meant changes in workforce demographics with greater number of ageing employees compared to younger workers, (Griffiths, 2000). As such, health related research is indicating that the health needs of ageing workers are different to those of younger colleagues and therefore may require workplace health promotion intervention targeting older age-related health concerns, (Dale, 2004; Cipriano, Neves, Cipriano, Chiappa and Silva, 2014).

Given the above, the aim of the systematic review was to assess the effectiveness of workplace health promotion interventions aimed at promoting better health in ageing workers from 40 years and over. In total, eight studies were identified for review. Results showed these studies either followed a psychologically based or physically based intervention design aimed at promoting better psychological and/or physical health.

Given the limited number of studies identified and moderate to low quality scores of each study, it was difficult to determine whether the psychologically based intervention design was more effective than the physical based intervention design. Nonetheless, this is still a novel area with some reports of significant outcomes from the studies reviewed. Future recommendations were therefore documented to assist further research progression in this important area of health promotion.

References:

- Cipriano Jr., G.; Neves, L.M.T.; Cipriano, G.F.B.; Chiappa, G.R. and Silva, A.B. (2014). Cardiovascular disease prevention and implications for worksite health promotion programs in Brazil. *Progress in Cardiovascular Diseases.* Volume 56: 493-500.

- Dale, L. (2004). Challenges for the older academic in balancing work and wellness. *Work.* Volume 22: 89-97.

- Eurostat. Statistics Explained (8th, August 2016). Retrieved from: http://ec.europa.eu/eurostat/statistics-explained/index.php/Population_structure_and_ageing.

- Gibson, E. A. (2014). Progress towards Healthy Ageing in Europe: to promote active healthy lifestyles in 45-68 year olds through workplace, rather than traditional health-related settings. *Working with Older People*, *18*(2), 51-57.

- Griffiths, A. (2000). Designing and managing healthy work for older workers. *Occupational Medicine*. Volume 50: 473-477.

Section B.1: Research

Job loss, professional workers and health outcomes: A qualitative study

Abstract

Background

The economic events from 2008 have caused a new type of job loss, with professionals losing work at larger numbers. Where before professionals being made redundant were less than their blue-collar colleagues, we now see more professionals out of work due to sudden business changes and unable to secure re-employment because of high competition (Garret-Peters, 2009). Research into the health effects of redundancy and life after job loss in professional workers has started to pick up momentum, (e.g. Mendenhall, 2008 and Strully, 2009), but is still limited, with further investigations required.

Aim

The aim of the study was to explore how professional workers made sense of job loss from redundancies and understand how their interpretations may have effected health outcomes. Further questions were asked to investigate how some participants stayed relatively healthy whilst others found it hard to cope.

Design

This was a semi-structured qualitative study, interviewing participants at a singular time point. Participants were recruited from U.K. based Welfare to Work providers and Third Sector organisations specialising in employment advice.

Method

Interviews were conducted in person or over the telephone. The sample consisted of ten unemployed professionals, (N= 7 men; average age x= 43.5; age range= 33-58 years) (N= 3 women; average age x= 40; age range= 37-43 years), whom had lost their work roles through redundancies. Using principles from Interpretative Phenomenological Analysis, (Smith, 1996),

allowed findings into participants' perceptions of redundancy and health choices during unemployment. These findings were then interpreted by using the Sense of Coherence formulation, (Antonovsky, 1979; 1987), to show health promoting properties in those that's seemed to be psychologically coping better and whom saw job loss as a life changing opportunity.

Findings

All participants perceived redundancy as an abrupt change to their professional identity. Depending on how they perceived their resultant identity of unemployed professional, this effected health. Participants whom were concerned of how they would be interpreted by society whilst out of work, felt levels of shame that caused maladaptive coping and poorer health. Those who managed such worries, showed less shame and greater health promoting strategies.

When reviewing participants' interpretations through the Sense of Coherence formulation, all participants comprehended the practicalities and business needs for job cuts. However, those that stayed relatively healthy could separate comprehension of job loss from their overall identity. This minimised negative internalisation of loss, reduced anger towards employers and reduced overall distress whilst unemployed.

Conclusion

Although participants comprehended the business needs for redundancies, this did not mean they were immune to the psychological effects of job loss. Indeed, professionals who internalised job loss were at threat of health concerns such as depression or alcohol dependencies. For professionals, redundancy therefore had ramifications stemming from a deep-felt loss due to the perception of losing one's professional identity.

1. Introduction

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1. Introduction

"No doctor ever cured a disease or government ever cured unemployment, or ever will. All that a doctor or government can do is create conditions that may help the patient…a good bedside manner."

(Author unknown; The Saturday review of politics, literature and art, 1928).

One may disagree with whether diseases cannot be cured nor unemployment be tamed, however it is apparent from this statement written during the early signs of the Great Depression, that unemployment can bring large consequences to those effected.

1.1. What is unemployment?

Today, the definition of unemployment, is universally agreed and implemented. Set by the United Nations arm of labour and economic development, the *International Labour Organization* or ILO, decides unemployment as an economic indicator that refers to the proportion of people who can work but cannot find work, i.e. the *unemployed,* (ILO, 1982). In the UK, the Office for National Statistics, (ONS), reports unemployed individuals as those actively seeking work for at least four weeks, with people unable or not willing to find work classified as *economically inactive,* (ONS, 2015).

Although there are clear definitions on whom is categorised as unemployed, the paucity on personal effects from unemployment is apparent. The above definitions give guidance at strategic level, but do not provide detail on how jobless individuals are affected socially, economically and in health.

For instance, when studying personal experiences of the unemployed, results have shown a trauma reaction, (Fineman, 1983), with similar

manifestations to that of grief response, (Archer and Rhodes, 1995; Papa and Maitoza, 2013). This is especially noticeable if being displaced from work is sudden and out of the employees control; in other words, through redundancy.

1.2. Redundancy

Redundancy is referred to as a dismissal from the workplace, when businesses need to reduce headcount, (Direct Gov. definitions, 2016). Redundancy usually follows company reorganisation via business loss and is a normative indicator of industrial decline, (ONS, 2015).

The term 'redundancy' is one form of definition normally used in the UK with other countries opting for statements such as 'displacement', 'dislocated worker' and 'lay-offs'. Within this research the classification redundancy shall be predominantly used and references to other synonyms made when stated in cited research.

Since the start of the 2008 global crisis, the developed world has experienced the largest surge in redundancies until present, (Learnhigher, 2015; Kynge and Wheatley, 2015). The global crisis had caused previously well-established trades to limit headcount or even foreclose. For example, at the onset of the economic crash, UK retail giant 'Woolworths' experienced increases in unpaid debts resulting in bankruptcy and making 27,000 people redundant, (Woolworths Group plc., 2009). This household name became one of many severe representations of the 2008 economic crash and headlined the vulnerability of industries that were known as unshakable.

Today, redundancy is now commonplace, with employees previously working for an industry most of their career life, losing their jobs without choice nor of formal dismissal, (CIPD, 2012). In other words, the hard worker is no longer immune and is at risk of job loss if their company is in trouble. This unwarranted loss can consequently impact on the health of those affected.

1.3. The health effects of redundancy

It is firstly important to consider why redundancy can influence one's health. The workplace provides a plethora of resources required to function in modern society. Per Social Psychology Deprivation Theory by Jahoda, (1982) employment not only contributes through material earnings but allows for health promotion through five by-products:

- Time structure
- Social contacts
- Collective purpose
- Social identity/status
- Activity

Redundant workers are therefore faced with a multitude of losses, whilst simultaneously and with urgency re-assess how they are to provide for themselves and dependents. Sudden removal from work has shown to increase maladaptive coping, (Breslau, Novak and Kesler, 2004), which in turn increases risks of long-term health conditions, (Forcier, 1988; Ciairano, Rabaglietti, Roggero and Callari, 2010).

When referring to the psychological impact of redundancies, previous papers show positive correlations between length of unemployment and signs of anxiety and depression, (e.g. Brenner and Mooney1983; Fielden and Davidson, 2001). Redundancies have been reported to threaten psychological health through the removal of valued occupational identity. In such cases, if individuals are left unsupported, the risks of psychological diagnoses are great, (Garret-Peters, 2009).

Given the above, an article by Marie, (1996), suggested that dislocated workers during times of mass redundancies should be viewed as societal concerns. The paper equates level of needs by advising public health interventions for redundant workers and their families where necessary.

This statement resonates the findings from Guindon and Smith, (2002), whom concluded the need for specialist counselling as anxiety and depression brought on by redundancy can disrupt individuals' future job search activities. Due to anxiety and depression, people trying to regain work may struggle during interviews, making re-employment difficult.

However, a recent paper into comorbidity from redundancy concluded that both anxiety and depression are significant at onset, with parallel reductions by 6 months of job loss, (Howe, Hornberger, Weihs and Moreno, 2012). Results suggested, the drop, in comorbidity, could indicate the normalisation of being made redundant and better manageability by some individuals.

However, authors' highlighted comorbidity predictors in unemployed populations have been rarely researched and further investigation is required. Such investigations are promising given results to indicate probable healthier coping by some individuals during unemployment.

Furthermore, redundancies have been associated with grief responses as highlighted by recent quantitative work from Papa and Maitoza, (2013), on U.S. based unemployed workers. The unexpected stoppage of work brought on grief reactions of avoidance coping by negatively effecting self-esteem, sense of self and identity continuity. The authors noted this was more apparent when time away from work was longer due to a '…chronic disruption in meaningful engagement with the environment.' (pp: 153). However, as the sample size was small, (N=73), recommendations were made for further studies into links between grief reactions, health and redundancies.

When investigating redundancy alongside risk behaviours, unemployment studies have yielded significant effects between time out of work and maladaptive coping. Alcohol misuse, (Forcier, 1988) smoking, (Breslau, Novak and Kesler, 2004) and over eating, (Laitinen, Ellen and Sovio, 2002) have found to be strong predictors of stress related coping amongst displaced workers with positive correlations alongside length out of work.

Specific studies into redundancies and risk behaviours conclude the adaptation of unhealthy coping because of stressful socio-environmental conditions brought on by loss of vital needs such as financial security, (Jahoda, Lazarsfield and Zeisel 1972; Virtanen, Vahtera, Kivimaki, Liukkonen, Virtanen and Ferrie 2005), and lack of secure employment status from job precariousness when accepting temporary work, (Ciairano, Rabaglietti, Roggero and Callari, 2010).

Overall health effects of redundancy have been investigated, with trends showing a swell of research interest during times of business instabilities, i.e. when redundancies are at greatest numbers. For example, during the advancement of service based professions in the late 1970's, an Economics paper by Chevenier, (1977), reported on the first experiences of redundancies to long-term telecommunication manufacturing workers in Belgium.

Similarly, whilst in the economic downturn of the 1990's, a Counselling paper by Eby and Buch, (1994), concluded the need for further research into psychological support for those suddenly displaced from work. Since the economic crash of 2008, we are now seeing an increased interest in the investigation of psychological support systems for both employed and unemployed, (Butcher, 2011; Strully, 2009).

Although the above papers are showing health effects of redundancies on unemployed people, the focus of research at times of mass redundancies has caused inconsistent findings. The result being there are still questions to be asked on how redundancy impacts on health.

It is important to note, when referring to sample characteristics, most research has focused on the unemployed available for investigation. This has been predominantly nonprofessional workers with very few from professional backgrounds. Historically, professional workers have not been out of work for too long to be categorised as unemployed and those that have, were merged into unemployment health studies using combinations of unprofessional and professional samples, (Pearson and Heyno, 1988).

Thus, professional-specific reactions to redundancies and subsequent health outcomes have not been studied in detail. To date, the 2008 global crash has ironically created large numbers of displaced professionals and shaped a new phenomenon of frequent job losses at mass levels. This gives the opportunity to distinguish whether professional workers would react to redundancies in the same manner or decide to cope differently. There is therefore scope for Health Psychology to investigate and contribute to health effects of redundancies on professional people affected and extract how this cohort copes within this time of career insecurity.

1.4. The professional worker

The phrase *'professional worker'* can be viewed as a general umbrella term which includes various types of occupations. For this research at hand the definition set by Occupational Behaviourist Fineman (1983), was adopted:

"…people whose occupations are characteristically professional, administrative, or managerial. People who are likely to be responsible for the supervision or welfare of others and have specific skills and knowledge, often acquired from a lengthy period of education and training…teachers, engineers, managing directors, sales executives, personnel managers, sales managers, bankers and retail supervisors- to mention but a few", (1983: 5).

From the definition, professional workers have a common theme of dedication to their career development- for some even *a calling.* Given this level of commitment to work, it is hypothesised that professionals should feel the impact of redundancies in relation to their health.

For professionals, the workplace is not only a place to do one's job, but a stable environment where they are agents responsible for producing valued outcomes (Gecas, 1982). The workplace is a platform to flourish, assist and receive appraisals necessary for not only professional but even personal growth, (Pearson and Heyno, 1988). As the commitment of professionals in

their work is great, it is understandable that self-identity will be significantly intertwined with their careers. For many, this is true given longer tenure and commitment to their industries. Sudden loss of work can therefore be felt severely by professionals, being careers, are central to their feelings of competency and self-worth, (Eby and Buch, 1994; Archer and Rhodes, 1995).

1.5. Health studies on unemployed professionals

'The financial crisis that broke through in 2008 led to the deepest and most synchronized global recession over the past 70 years. The consequences of both the financial crisis and economic downturn appeared in the global economy during the years 2008–2009 in a scale and scope not seen since the late 30s of the twentieth century.'

(Dzikowska and Jankowska, 2011:100).

The above quote is a good representation of how global in its entirety and severe in consequence the aftershocks of the 2008 economic crash had been with effects felt by all nations and all types of people, including professional workers. Professionals today are therefore experiencing a chronically volatile employment setting where both job insecurity and health-related stressors from these threats are commonplace.

When referring to qualitative work on professional unemployed, results show surfacing of various emotions. At the onset of the global crash, a qualitative study by Mendenhall, (2008), identified strong emotional reactions to redundancies by mid-life professionals in the U.S. Participants often reported a sense of self-degradation from their job loss, struggling with time away from work and feelings of stagnation. Participants also underplayed their abilities and were anxious in applying for work parallel to their merits, indicating lowered self-esteem and worthlessness. This was exacerbated by failing to find other work, even though participants were

clearly aware of limited job opportunities resulting from the global crisis. The authors suggested further qualitative investigations into how professionals made sense of losing work in an economic unstable world and how they internalised their experiences, as the latter would provide light into adaptive or maladaptive coping.

The above recommendations were similar key points in qualitative research by Garrett-Peters, (2009), whom concluded professional participants describing their return to working life after the initial shocks of the economic downturn as '…a gnawing sense of distrust about returning to the corporate world of work', (p: 576). Here too, future recommendations were for more professional specific research into the types of emotions that surface in professionals made redundant and how these emotions effect their overall health and future re-employment prospects.

In addition, redundancy effects on professionals has been linked to symptoms of pathological grief responses associated with bereavement. For instance, a qualitative analysis of 100 interviews with unemployed white-collar workers, (Fineman, 1983), showed if redundancy was without warning, psychological distress was at levels similarly found in sudden bereavement trauma.

Participants who reported the above effects, highlighted avoidance coping in everyday activities and lower self-esteem levels. However, in comparison to unskilled workers, an exclusive difference was found in the lingering effects of such reactions for professionals and how professionals struggled more deeply when coming to terms with their loss. It merits to see if unemployed professionals post global crash will have similar grief related responses as those investigated by Fineman in the early 1980's.

With regards to the effectiveness of health interventions for unemployed professionals, previous research such as that of Joseph, (1999), found guided imagery and relaxation having positive results. Sessions allowed displaced professionals to cognitively reframe their loss and regain perceptions of self-control. Consequently, levels of anxiety and/or depression reduced from

baseline. However, the results reported anger reductions were not significant. Similar to the above papers, the study recommended further investigations into general emotional effects from sudden job loss, in this case primarily that of anger.

Although the above findings are from a mixture of pre-and post-global crisis studies, they all mirror similar concerns in the psychological dangers professionals face when neither acceptance nor closure is given to their job loss. With the nature of redundancies, acceptance and closure rarely occurs during the early days after job loss, nor for some, may it occur at all. The global crisis of 2008, has not only changed world economy, but has introduced professionals to the world of frequent job losses and resulting health threats from these. It is therefore understandable that professionals will feel an impact from redundancies.

1.6. The impact of the 2008 Economic Crash

'How did things get so bad so fast?'

(World Economic Outlook Report from the International Monitory Fund-IMF, 2009).

The above quote is the title for the IMF's opening chapter during one of its first international guidance reports after the 2008 economic crash. Although a short statement, it fully captures the enormity and swift consequences of this global financial fall.

Since the start of the Industrial Revolution, the world economies have experienced several fiscal crashes with the introduction of financial and business insecurities from the Great Depression of the 1930's. However, the global crisis of 2008, brought a unique economic destabilisation due to countries' economies being intertwined and reliant on each other to the point of causing a domino collapse, (Dey, 2009; Kynge and Wheatley, 2015).

Although the causes of the 2008 crash have been reported as complex, (IMF Reports, 2009), the consensus has been that it was caused by a combination of low risk management when referring to credit availability and limited supervision of banking activities by world governments, (Financial Crisis Enquiry Commission U.S. government report, 2011).

Additionally, developed countries such as the U.S. experienced a burst in their housing market bubble causing mass evictions and foreclosures, (Kourlas, 2012). As a result of agglomerated economic collapse, large international banking institutions were then faced with threat of collapsing if developed economies did not provide bailout funds. This in turn brought nations close to bankruptcy, (BBC, Business News, 2008).

The above actions by developed nations to *damage control*, signified a start of limited credit availability, bank solvency, damaged investor confidence and stock market price-drops, (IMF Reports, 2009). Since then, governments have had to introduce austerity measures to bring their economies back into stabilisation modes, (Singh, 2010). When referring to businesses this had meant headcount freezes across all industry types and reduced job opportunities.

1.7. Today's post 2008 society

'We have witnessed a remarkable shift in economic trends over the past years. Issues such as current account imbalances, misaligned exchange rates, volatile capital flows and the financialization of commodity markets resulted in a severe crisis that affected all countries…'

(Foreword comments from Supachai Pantchakdi, Secretary-General of UNCTAD; United Nations Conference of Trade and Development, 2012).

The above quote derives from a report presented at the 2012 United Nations Conference of Trade and Development, (UNCTAD, 2012), which focused on the aftershocks of the 2008 crash and future economic predictions. The report concluded current unemployed populations as 'crisis-induced' (p: 28), causing '…the most pressing social and economic problem of our time…' (P: 28).

The report continued to point out that although developed countries are recovering this was at modest rates with their Gross Domestic Product, (GDP), falling short against employment numbers. The consequences of these being, developed countries would have for years to come, large pools of unemployed people and if left out of work for long periods would mean a deterioration of human capital, (e.g. loss of skills and morale). When referring to professional workers, this would mean a loss of skills necessary to bring economies into recovery. Although the conference was in 2012, the above concerns in unemployment rates still resonate today with current economic instabilities such as the Eurozone crisis (Dumitrescu, 2015).

In their U.S. paper, Strully, (2009), gives examples of how economic vulnerability can create internal vulnerability for individuals at risk of job loss. Strully highlights a trend of frequent business restructure to stay competitive, but at the costs of regular job cuts.

To survive, both businesses and employees resulted to 'job churning', (p: 1) via business job-cuts, whereas employers frequently *jumped-ship* if businesses were under threat. The study concluded that business volatility and unstable career moves had caused general disillusionment in both economic and job security. When referring to employees, this increased the risk of distrust in future employers, thus affecting job performance and tenure once re-employed.

Similar findings are emulated in an Indian study on stress, job loss and professionals in recessionary times, (Tripathi and Tripathi, 2011). Findings showed that regardless of industry all professional workers faced 'Recessionary Job Stress', (RJS), especially when threatened with redundancy. The paper highlighted a need for further research into how professionals manage work related stress in today's global unstable times and cope with job losses. This, per the paper would help further the investigation of RJS in professionals and better assist healthy re-adjustment back into work.

Due to possible health threats from recessionary job loss, current studies have also focused on links between mortality and job loss, during these times. For example, a U.S. paper by Noelke and Beckfield, (2014), analysed how recession and job loss jointly shaped mortality. Adopting a large-scale cross-sectional survey of over 50 states of 45-66 year olds employed between 1992 and 2011, Noelke and Beckfield analysed redundancy frequencies alongside risk behaviours, (drinking, over eating, smoking), and self-reports in general health and long-term health condition diagnoses, (e.g. Cancers, cardiovascular diseases, COPD).

Out of 9284 participants, 1652 had experienced job loss; with 281 during recessions. Results indicated a significant association between mortality and sudden job loss during recessionary periods, ($p<0.001$), with mortality posing a non-significant effect at times of economic boom, ($p=0.70$). The authors highlighted that during non-recessional periods, job losses caused health concerns but were not significantly linked with mortality rates.

Reasons being that employees had better chances of finding another job swiftly. This would lessen the health effects of job loss and not place workers at risk of long-term conditions and consequential mortality. The authors concluded a need for '…policymakers and health professionals should focus resources on older workers who lose their jobs during recessions.' (P: 11).

Similarly, a British study by Coope, Gunnell, Hollingworth, Hawton, Kapur et al., (2014), highlighted significant trends between suicide and recessional redundancies for men. Per results, this was most apparent at global crisis onset, (i.e. 2008), and for professional men aged 35 to 64 years. The authors concluded an urgent need for further investigations in this specific cohort with the aim of educating healthcare professionals in the field.

The effects of current economic uncertainties are not only found in the unemployed but are apparent even when in work. Research in this area has shown anxiety to be brought on by seeing fellow colleagues being made redundant thus making those still in work question their own career mortality, (Vickers and Parris, 2007).

Similarly, a cross-sectional study by Merrill, Aldana, Pope, Anderson, Coberley et al. (2012), found employees at work, exhibiting high levels of presenteeism caused by reduced staff counts. Results showed presenteeism was significantly linked to work overload, stress and reduced productivity. When investigating employee status, professionals showed highest presenteeism with self-reports of having too much to do but with limited resource and time because of company cut backs. Overall, participants at highest risk were most likely to take long-term sick leave and be in danger of job loss.

This latter point was researched by Flach, Groothoff, Krol and Bultmann (2012), whom reported employees on long-term sick leave were most likely out of work because of mental health concerns brought on by presenteeism from work overload. Similar to Merrill et al, (2012), results underlined staff on long-term sick leave were more at risk of losing their roles. Recommendations were made for further research into breaking the cycle

between work overload-presenteeism-long-term sick leave and probable job loss. As cited by Merrill et al, (2012), professionals are at great risk of being trapped in this cycle. It therefore bares merit to conduct research specific to professional workers in this area.

1.8. What to consider when investigating professionals made redundant

To work well under stress, one requires opportune yet demanding environments to develop and assess their coping resources, (Jahoda, 1982). The workplace provides a favourable platform where employees can learn and refine coping mechanisms. It is an environment that allows construction of internal, (e.g. resilience, fitness) and external, (e.g. support from colleagues, building work related networks), resources which are tested against ongoing stressors such as contract deadlines, working with limited means and managing teams.

Given professionals' work-related responsibilities, they have more prospects where they can obtain a variety of advanced coping tools. Combined with regular management of large scale work stressors, these resources are practiced daily and should therefore be at advanced levels compared to those found in lower ranking employees. If professional employees apply coping tools in the same way during redundancies, they may be more resilient to stressors and eventually re-gain work with their health relatively intact.

However, it is important to note that, core reasons for professionals progressing in work are passion for their industry and drive to progress up the career ladder, (Jahoda, 1982, George, 2009). In other words, professionals' place great *meaning* in work and accept the management of work-related stressors. It therefore merits investigating whether professionals would apply such coping during unemployment and find meaning from life after redundancy?

Due to the above assumption, further investigations in this novel area are warranted. As such, it is logical to use theory in the proposed research that not only identifies individuals meaning during stressors but simultaneously highlights the influences of meaning on deciding how to best cope. Specifically, when researching the health impact of redundancies on professionals, it is advisable to use theory that allows researchers to review redundant professionals' life meaning during their time out of work and how this effects what actions they take to stay well.

Applying theory that permits the investigation of what redundant professionals see as meaningful is important. If unemployed professionals view time out of work as life learning and meaningful, they should cope better and learn further health inducing skills. If during this experience, professionals cannot find meaning, this may impact at a multitude of levels. For the unemployed professional, lack of meaning will affect their motivation to find work, stay healthy and their relationships with those around them, (e.g. partner, children and friends).

In addition, it is important to stress that unemployed professionals unable to cope well during job loss is not only an individual concern but a public issue. Business growth is dependable on psychologically and physically healthy professionals applying their expertise confidently. If unemployed professionals do not cope well during job loss, this may elongate their time out of work and threaten both their overall health and professional knowledge; both of which are necessary for socioeconomic growth. Public concern provides further evidence for the need to research and assist these specific occupational strata.

To identify how unemployed professionals can cope well and stay healthy after redundancies, the Salutogenic Theory and Sense of Coherence formulation, (SOC; 1979; 1987), by Aaron Antonovsky shall be used alongside qualitative analyses. Viewing redundant professionals in a salutogenic way, allows an additional focus on identifying health inducing qualities. Salutogenesis also allows research to clearly target individual's

world-view through comprehensibility, manageability and meaningfulness i.e. one's Sense of Coherence, (SOC; 1987: 16). By looking at professionals' SOC, the research will help draw out how exactly do professionals see their job loss and specify coping either for the better or worse. Data on adaptive coping can then be fashioned in future interventions assisting the above cohort during their time out of work and during the early stages of re-employment.

1.9. The Salutogenic Theory and Sense of Coherence Formulation (SOC)

'To have gone through the most unimaginable horror of the camp, followed by years of being a displaced person, and then to have reestablished one's life in a country which witnessed three wars…and still be in reasonable health'.

(Aaron Antonovsky, 1987: preface).

In his quote, Antonovsky explained how working with post-holocaust female survivors in Israel, allowed him to start exploring why people can stay relatively healthy even when the odds are against them. This in essence was for Antonovsky his salutogenic orientation and the development of the Sense of Coherence formulation, (SOC; 1979).

Salutogenesis emerged during a time when research was focused on illness perception and pathological orientation, i.e. which situations make people unwell? With his theory Antonovsky aimed to remind medical and behavioural disciplines alike, the need to also consider what keeps people reasonably healthy even when stressors and illnesses are omnipresent, (Antonovsky, 1979; 1987). When considering the research:

What keeps some redundant professionals healthy although they have experienced occupational, social and financial losses from job displacement?

Antonovsky did not dismiss the importance of pathological diagnoses and sickness behaviour but asked for people to be viewed from an alternative angle; '…we are all terminal cases and we are, so long as we have breath of life in us, in measure healthy' (Antonovsky, 1987: 3). In other words, all people are on a health spectrum, of which Antonovsky termed the health ease/dis-ease continuum, (Antonovsky, 1979).

According to Antonovsky, salutogenic movement on the continuum will be influenced by how people generally comprehend, manage and give meaning to situations, (p: 15; 1987). This viewpoint introduced the Sense of Coherence formulation in 1987, which has been widely used until today in health-related research, (e.g. Melin and Fugl-Meyer, 2003; Feldt, Leskinen and Kimunen 2005). For Antonovsky the aim of the formulation was to not separate comprehensibility, manageability and meaningfulness into separate coping strategies but to view these as sequences representing ones salutogenic orientation; i.e. one's way of staying healthy during stress. A brief explanation of each part of SOC is as follows:

- **Comprehensibility**

This refers to the way individuals perceive internal and external stressors that they are confronted with and first steps in making cognitive sense of these stimuli. Antonovsky pointed out for individuals showing high levels of comprehensibility, stressors will be ordered, predictable and clear rather than chaotic, random and accidental. As such when events do surface, even as non-desirable outcomes such as work-related redundancies, individuals high in comprehensibility will be able to explain the situation to a certain degree.

- **Manageability**

Manageability defines the extent individuals perceive resources are available to them '…to meet the demands posed by the stimuli that bombard one', (p: 17; 1987). Antonovsky explains resources can derive internally (e.g. ego, strength, character, talents, faith) and externally such as family, friends, colleagues. According to Antonovsky, individuals high in manageability, should be able to cope with stressors better and not feel victimized by their situations.

- **Meaningfulness**

To Antonovsky, meaningfulness was the motivational element of SOC formulation. This area allows individuals to not only cognitively but also emotionally understand their experiences. People with high meaningfulness would see a situation requiring high emotional and cognitive investments. These would be areas important to them, that they would care about and gain great sense or worth. Such situations would not only be exclusive to fortunate events but unfortunate challenges in which commitment to manage and overcome would mean learning and strengthening from it.

The global representation of sense of coherence and Antonovsky's aim to show how SOC formulation can represent one's typical view of life stressors and management style is captured in the following quote:

'The sense of coherence is a global orientation that expresses the extent to which one has pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable, and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement. (1987, p: 19).

Per Antonovsky people will have one of the following formulae[1]:

Table B.1. Sense of Coherence eight main formulae

Type	Comprehensibility	Manageability	Meaningfulness	Prediction
1	High	High	High	Stable
2	Low	High	High	Rare
3	High	Low	High	Pressure to move up
4	Low	Low	High	Pressure to move up
5	High	High	Low	Pressure to move down
6	High	Low	Low	Pressure to move down
7	Low	High	Low	Rare
8	Low	Low	Low	Stable

When considering the eight possible types of SOC, Antonovsky stated that types 1 and 8 were stable patterns viewing their world experiences as highly coherent, (type 1), or incoherent, (type 8). Antonovsky goes further to explain that types 2 and 7 were rarely found as low comprehensibility does not constitute for high manageability and high (type 2) or low (type 7) meaningfulness. A usual and reasonable level of comprehension in the situation is necessary for people to instruct their actions.

Antonovsky draws the reader to the most common types of SOC combinations. Types 3 to 6 where there is pressure to change either for the better (i.e. types 3 and 4) or for the worse (types 5 and 6). In these scenarios, Antonovsky commented that individuals find themselves feeling challenged in what meaning they give to the situation at hand.

If one cares and believes that they understand the problem, the individual will find the resources to change regardless of hardships, (types 3 and 4). If

[1] From Antonovsky, 1987, (p:20).

the individual does not find meaning nor believe they have the resources to hand, this may lead them to adverse health effects, (types 5 and 6).

Antonovsky explained stability as a result of SOC being tested and shaped up in the early life stages with it reaching maturity by 30 years of age, (1979; 1987). From 30 years, people's SOC will be relatively consistent across all stressors thus providing individuals a consensus on how they perceive and manage situations. In other words, those with preconceived low SOC will be harmed by stressful experiences and those with high SOC remaining generally well during such stressors.

When referring to professionals it may be open to assume that these occupational strata may have preconceived strong SOC. Their higher levels in industries be an indicator of educational and life challenges to reach such posts. Given their general intellect and positions in industry, professionals should have higher understanding on why job cut backs are necessary for businesses to survive.

Thus, professionals whom understood why they had lost their jobs, may effectively source out coping resources such as their own resilience, faith, help from family and old colleagues. If this sequence is achievable then professionals made redundant, would see time out of work, even if highly stressful, as predictable and explicable thus having clear meaning in what is happening to them and how to rectify the situation at hand. In other words, a strong SOC is maintained.

Although SOC is viewed as globally stable, Antonovsky did not refer to SOC as static and emphasised the effects of life changing stressors which can inevitably shake one's SOC core, (1987). Antonovsky explained that highly stressful circumstances can reduce coping mechanisms at one's disposal, and create an imbalance where resources are now less than resource deficits. Antonovsky termed this as an imbalance between *General Resistance Resources* (GRR; p: 122; 1987) and *General Deficit Resources*, (GDR; p: 122).

Even for professionals with an understanding the general situation of business cut backs, can find themselves struggling whilst coming to terms with redundancies and unemployment. Antonovsky used the example of job loss to explain that when out of work previously busy people can feel underutilised. In time, the experience of unemployment would become difficult to understand from a positive stance and meaning in everyday health activities lost. These risks could in turn negatively impact on health even for those with relatively high SOC, (1987).

1.10. Salutogenesis and Sense of Coherence formulation in health unemployment studies

The salutogenic approach has been widely used, predominantly in quantitative methods via the Orientations to Life 29 or shorter 13 item SOC scales, (Antonovsky, 1987; 1993). Implemented in health-related research such as oral health (Lindmark and Abrahamsson, 2015) and as a mediator in quality of life assessment for breast cancer patients, (Rohani, Abedi, Sundberg and Langius-Eklöf, 2015), both scales have clearly measured participants SOC alongside health status. As the 13 item SOC scale requires less time to complete than its longer 29 item counterparts, it has been more regularly used and with its effectiveness in health studies systematically reviewed, (Eriksson and Lindstrom, 2006).

In health and unemployment studies, the 13 item SOC scale was used to investigate unemployed participants' view of their circumstance and subsequent coping. For example, a five-year follow-up study by Feldt, Leskinen and Kimunen (2005) aimed to investigate the structure and factorial invariance of Antonovsky's 13 item SOC scale when comparing unemployed SOC status against those employed. Results showed that SOC for both employed individuals and those whom experienced time of unemployment during the five-year study remained stable, thus giving evidence towards Antonovsky's notion of global SOC.

Furthermore, results showed those whom experienced unemployment had lower levels of SOC from baseline when compared to the employed group. This was explained as people predisposed to lower SOC were more likely to lose work. However, the study suggested that this may not be the case when mass redundancies occur during economic instabilities. As such more research is necessary in identifying SOC of the unemployed especially in times of mass job loss with the aim of clearly recognising how SOC effects both health and chances of re-employment.

A paper by Hirao and Kobayashi, (2013) compared health related quality of life alongside sense of coherence using Antonovsky's 13 item SOC scale and 'Flow', (Cziskentmihalyi, 1975). The authors explain Flow as one's manageability with present challenges of which will influence health status. Results showed unemployed people identified as high in flow (i.e. autoletic personalities) exhibited stronger SOC and better health quality of life. However, as details on types of unemployed people, (e.g. professionals, blue-collarworkers), were not provided, it is difficult to see SOC levels for each occupation status.

Similarly, a study by Melin et al, (2003) used SOC as an indicator of coping, by identifying variables that could assist in early prediction of somatic disorders caused by vocational disabilities. Assessing SOC for 109 unemployed adults, showed individuals with high SOC displayed high belief in re-employability regardless of the severity of illnesses. These results were more likely in unemployed with higher education levels, i.e. white-collar workers than those from blue-collar categories. Although the findings showed how strong SOC can influence employability independently of the severity of illness, the authors conclude further in-depth research, such as qualitative research, to conceptually investigate attitudes and adaptational resources of vocationally disabled unemployed individuals.

In an 8-year follow-up study, Poppius, Tenkanen, Hakama, Kalimo and Pitkanen (2013), tested the hypothesis that people with strong SOC had decreased all-cause mortality. This was done by reviewing the relationship

between occupation, sense of coherence and all-cause mortality in 4405 middle aged employed men, with occupations sectioned into white-collar or blue-collar workers. Using the 29 item SOC scale, (Antonovsky, 1987; 1993), results showed significant relationships between all-cause mortality and low SOC for both white-collar and blue-collar workers. When measuring the frequencies of SOC and all-cause mortalities, white-collar workers with low SOC were at greater risk than blue-collar counterparts with low SOC. These results showed the effectiveness of SOC to help identify risks of mortality in working men; especially those in professional roles. Although a large sample size, results could not be generalised to wider occupational populations, as participants were middle aged men only. Recommendations were made for similar research targeting both male and female workers.

Finally, a study by Starrin, Jonsson and Rantakeisu (2001), investigated the relationship between forms of hardship and SOC during unemployment. Hardship fell into a Finances Shame Model, (Starrin et al., 2001), designed by the author whilst SOC was measured with the 13 item SOC scale, (Antonovsky, 1987; 1993). When referring to finance, this was determined as problems connected to expenditure being greater than income, commonly caused by wages being lost during unemployment. With regards to shame, this was interpreted as degrading and contemptuous experiences. For example, being considered lazy or less intelligent whilst out of work.

When measuring SOC alongside financial and shame hardships those with higher levels of hardships exhibited lower SOC. This was more prominent in longer term unemployed and single parents. Participants with less time out of work, higher education levels and with no children had higher SOC. Although results showed a significant relationship between education and SOC, it is difficult to see how many participants whom were educated from college levels fell into which specific house hold demographic and how education effects SOC when adjusted for household and hardships. Similar to Melin et al, (2003), recommendations were given for qualitative work

using salutogenesis. Such analyses would give richer conceptual clarity in how SOC determines the management of unemployment.

1.11. Salutogenesis and qualitative research

The proposition of using salutogenic theory in a qualitative way is not new. Antonovsky himself highlighted the need for qualitative work using salutogenic approaches for the theory to develop further, (1979; 1987). Indeed, the importance of adopting qualitative approaches can be seen in Antonovsky's discussion on the differences between people with high and rigid sense of coherence, (1987). Antonovsky saw no way in distinguishing these two types other than through '…serious qualitative research', (1987; p: 26).

The need for qualitative methods when using salutogenic theory can also be found in a proposal article by Lutz, (2009) on combining sense of coherence with Flow Theory (Cziskentmihalyi, 1975). When referring to the 29 and 13 item SOC scales, Lutz argued that these scales were limited in comprehensibly identifying SOC due to westernised language used. The author highlighted language such mastery, power and control did not allow room for other less masculine variables that equally describe sense of coherence, (e.g. communication, corporation).

As such the SOC scale is limited in seeing the interaction of all processes which will influence people's comprehensibility, manageability and meaning. With his comments, Lutz did not dismiss the importance of salutogenesis but recommended that its qualitative use needs to increase to identify new variables. This would not only fully capture participants SOC but would assist further development of both SOC scales.

In general, research using salutogenic qualitative approaches are still few with most adopting mixed method analogies. In such cases salutogenic based qualitative data has been implemented to further investigate and support participants SOC scores. Examples can be found in health-related

studies that request global view perspectives in coping; such as health status after war, (Ebina and Yamazaki, 2008) and life span studies in salutogenesis and health in over 65's, (Tan, Vehvilainen-Julkunen and Chan, 2014). The following section will discuss current unemployment studies using both qualitative analyses and salutogenesis.

1.12. Qualitative unemployment studies using a salutogenic approach

Unemployment studies using qualitative salutogenic approaches are equally limited with studies opting for mixed methods approaches, including both employed and unemployed participants. For instance, in a mixed methods cross sectional study by Idan, Braun-Lewensohn and Sagy, (2013), psychiatric staff from Israeli mental health wards were interviewed to identify staff's work concerns in relation to their sense of coherence.

The research adopted qualitative methods so participants could discuss freely how they saw their job roles, managing occupational stress and what work-related deficits exist that hinder their coping. Thus, qualitative data from the study indicated meaningfulness perceived as health promoting (e.g. good support from leading staff) whilst manageability was concluded a health deterrent, (e.g. lack of specialist training; poor ward conditions).

Although staff commonly commented on poor ward conditions for both workers and patients alike, managing stress was reasonable if participants viewed their role as fulfilling, (i.e. high meaning). The paper concluded the study has limitations given its cross-sectional analysis and small participant number, (N=15). Even so, rich data derived from the qualitative aspect of the study has enabled propositions for future health promoting interventions for psychiatric staff in Israel.

Similarly, a four-year mixed methods follow-up study by Lottyniemi, Virtanen and Rantalaiho, (2004), aimed to investigate young physicians and medical students SOC when considering risks of unemployment, because of the 1990's economic slump in Finland. At four-year follow-up, participants

were given alongside the 13 item SOC scale, (Antonovsky, 1987; 1993), an open-ended question. The question asked participants to cast their minds back to baseline periods where the threat of unemployment was greater and re-evaluate that part of their personal and professional history.

Participants whom scored highly on the SOC scale mirrored their sense of coherence in their narrative answer. Results showed phrases of structure, predictability, manageability and meaning when describing themselves and careers. Although not an exclusive qualitative piece, the inclusion of the open-ended question was useful as it further captured individuals SOC by allowing space for participants to freely express their world views. Allowing for participants to write their views beyond the 13 item SOC scale gave opportunity for '…a dialogue aimed at explaining the phenomenon at hand in a meaningful, agency-enabling way', (p: 924).

Although the above examples show the usefulness of qualitative analyses, within mixed methods it can fall in the trap of *filling the gaps* of quantitative methods, in this case Antonovsky's SOC item scales, (1987). As such, a wider search was implemented to find studies that used pure qualitative methods and can therefore show clearly how to map salutogenesis in both question design and qualitative analyses.

A qualitative study by Griffiths, Ryan and Foster, (2011), aimed to investigate the adaptive capacity of twenty mental health clients when dealing with daily problems. In addition, a secondary aim was implemented, by testing how effectively sense of coherence could map onto interview data from thematic analyses.

Results showed sense of coherence mapped effectively on interview transcripts with emerging themes considered as general resistance resources, (GRR; Antonovsky, 1987). In addition, by analysing interviews in a salutogenic way, results showed new findings in how study participants managed problems. In this case, clients reported differences between how they perceived and managed concrete, more cognitively based problems,

(e.g. paying bills) when compared to emotionally charged problems such as managing frictions in relationships.

The paper does have limitations in its small sample size, making it difficult to generalise findings in the wider population. However, it does give insight into the efficacy of investigating sense of coherence through qualitative methods. By using qualitative analyses, not only did it give evidence in choice of general resistance resources through the eyes of the participant but allowed for further insight into how participants cope. With regards to the specific cohort, the authors concluded SOC strength could be split given differences in cognitive/concrete and emotional/relationship orientated problems. In the case of mental health support, such data can assist in educating healthcare professionals on how clients see different problems and fashion support to promote adaptive coping styles.

Additionally, a study by Albett and Jones, (2007) adopted both salutogenesis and Interpretative Phenomenological Analysis (IPA; Smith, 1996), with the aim of investigating how NHS palliative cancer care staff stayed relatively well even though their work role was considered highly stressful. By using IPA, the authors could identify emerging themes which showed high levels of comprehensibility, manageability and meaningfulness per Antonovsky's SOC formulation and principles of Hardiness, (Kobasa, 1979). For example, palliative cancer care staff explained how working in such settings brought an awareness of their own mortality and gave them meaningfulness in how important is was not to waste life.

Though the use of qualitative analyses in a salutogenic way is still narrow, its usefulness is evident from the above studies. Interviewing participants and analysing data from a salutogenic stance helps the researcher copiously capture peoples' past, present and future orientations, of which creates one's sense of coherence. Qualitative methods give researchers unique chances to comprehensibly see people's views of their past and whether their views and manageability will remain equal in the future. In addition, it

allows insight into whether SOC stays global or if people choose different coping for different situations.

The above research show, an adaptability of salutogenesis in qualitative analyses and its usefulness in explaining participants' health status via interview data. This provides incentives for further contributions to health and professional unemployed studies using this format.

1.13. Summary and purpose of this study

This introduction has provided a general overview of health effects from unemployment when referring to professionals whom have been made redundant, i.e. job loss that was not of choice. From the above, what is evident is the limited amount of research in this area when compared to studies on blue-collar workers. As previously mentioned, this is understandable given professionals in the past have had greater success in re-employment and therefore shorter periods out of work when compared to non-professional workers. Professionals have therefore normally been too small a sample pool to exclusively research and are usually mixed with non-professionals. This has made it difficult to extrapolate redundancy based health effects and subsequent coping that may be specific to professionals.

However, since the onset of the 2008 economic crash, financial unpredictability is more common. Thus, threats of redundancies are now greater than ever and encompassing all employee strata, including professionals. This has provided disciplines such as Health Psychology the opportunity to conduct investigations, aiming to identify how redundancies effect the health of professionals and help shape health promoting interventions for this group by identifying adaptive health strategies seen in unemployed professionals coping better.

Cited research adopting a salutogenic approach, has succeeded in reporting the importance of a strong sense of coherence when managing health during

stressful times. Cited studies which have used a qualitative salutogenic approach, have managed to expand on this by presenting the details necessary to understand both a strong and weak sense of coherence. It therefore merits to apply the salutogenic approach during this study to extract professional's adaptive perceptions and coping. Findings can then advise health promoting support for those less resilient, (i.e. weaker SOC).

To achieve the above propositions, the study design should also adopt a *qualitative salutogenic approach* thus enabling richer findings into how unemployed professionals interpret redundancies and how these interpretations effect health for the better or for the worse.

1.14. Aims

The 2008 global economic crisis and subsequent vulnerability of the world market, have shaped employability in a new way. Where before job losses were a predominantly blue-collar experience, professionals are now commonly unsafe, with many at risk of redundancies. Given current health promoting interventions targeting the unemployed would have been influenced by predominantly blue-collar based data, these may not be best-fit for unemployed professionals.

It is therefore advisable to ask science to start viewing the health consequences of unemployed professionals from an uninfluenced perspective, by furthering health and unemployment research with this specific cohort. When referring to Health Psychology, the discipline has an opportunity to help contribute to such findings. Through designing research which identifies health promoting and detriment behaviours, Health Psychology can assist in updating health promoting support for professionals out of work.

This Health Psychology based study will therefore investigate the following questions:

- **How does comprehension of redundancy effect self-reported health?**
- **Which perceived psychological factors promote or threaten health during job loss?**
- **Which perceived psychological factors determine a sense of meaning whilst out of work?**

Method

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2. Method

Study design, recruitment, interview methods and data security were systematically reviewed under City University's Ethics protocol, (Appendices 2.A. & 2.B.).

2.1. Design

The research was a qualitative study using a cross-sectional, semi-structured design. The overall aim was to investigate and interpret how unemployed professionals made sense of work-related redundancies and to understand how professionals' interpretations may have effected psychological and physical health from the moment news of redundancy was given, up until their current situation; life beyond job loss. Interview data was then used to draw out health promoting factors during job loss to assist future health interventions aimed at unemployed professionals. The latter was achieved through Antonovsky's salutogenic approach, enabling the identification of professional's comprehension, health management and life meaning; assisting them in staying relatively well during such adverse times.

2.1.1. Participants

Sample criteria

Inclusion criteria were as follows:

- Unemployed adults deemed professionals as defined by Fineman (1983) during his research with this cohort:

"…people whose occupations are characteristically professional, administrative, or managerial. People who are likely to be responsible for the supervision or welfare of others and have specific skills and knowledge, often acquired from a lengthy period of education and training…teachers,

engineers, managing directors, sales executives, personnel managers, sales managers, bankers and retail supervisors to name a few…", (p: 5).

- Professionals whom had lost their jobs through redundancies because of labour market vulnerability since the 2008 global crisis.

- Professionals seeking work for a minimum of 4 weeks, thus fulfilling criteria necessary to be defined 'unemployed', (Department for Work and Pensions, 2015).

- Unemployed professionals from 30 years of age[2].

- Unemployed professionals living in the UK only.

- Professionals receiving Job Seekers Allowance, (Direct Gov., 2016) unemployment benefits, (JSA), or living off their savings.

- If participants had successfully secured work after their redundancy, a minimum of 4 weeks' unemployment was required prior to re-employment. This allowed for the participant to have experienced the minimum length of unemployed life and therefore give an account of their interpretation. Such participants would also supply data into which cognitions and behaviours enabled them to successfully return to work and therefore stay relatively healthy.

[2] Regarding Antonovsky's Sense of Coherence formulation, (1987), SOC reaches maturity by 30 years of age and provides from this age a stable consensus in how adults perceive and manage stressors. As such, participants showing signs of high SOC should comprehend and manage redundancies healthily and find life lessons, (i.e. meaning), during unemployment. Participants with low SOC should therefore find redundancies confusing and unclear, managing their health poorly and find little meaning to develop during unemployment. Although a qualitative study with relatively small sample, it will be interesting to see whether the suddenness of redundancy shakes one's sense of coherence and which interpretations indicate such threats thus exposing participants to distress.

- Given professional workers are more likely to go through voluntary redundancy negotiations, this category was added, to not exclude potential participants from the study. Additionally, it allowed for the opportunity to see how participants perceived the process of voluntary redundancy?

Exclusion criteria were:

- Professionals unemployed after redundancies for less than 4 weeks.
- Unemployed professionals whom had lost their jobs due to health-related reasons.
- Unemployed professionals on health-related benefits such as Employment and Support Allowance, (ESA), (Direct Gov., 2016)[3].
- Unemployed professionals living outside the UK.

Sample characteristics

The sample consisted of ten unemployed professionals, (N= 7 men; average age x= 43.5; age range= 33-58 years) (N= 3 women; average age x= 40; age range= 37-43 years), whom had experienced redundancies because of the aftershocks from the 2008 global economic crash. Length of unemployment consisted between a range of 6 weeks to 4 years.

Out of the 10 participants:

- Four had experienced voluntary redundancy.
- Six had lost work through involuntary redundancy.
- Four participants had dependents, (i.e. children, partners and elderly parents), financially reliant on their income.

[3] Unemployed professionals receiving ESA were classified too vulnerable to participate.

- Six participants did not have any dependents financially dependent upon them.

After the interview, contact was made to see current employment status. Seven participants had secured further employment, one had remained out of work and two were unable to be contacted. Further details can be viewed in the following demographic table (Table B.2):

Table B.2. Demographic Data (Job status was unknown with Participants 5&10 as contact was unsuccessful)

Participant number	Gender	Age	Ethnicity	Area of work	Redundancy Type	Time out of work from their recent job loss	Total No of redundancies	Number of Dependents	Status since the interview
1	Female	43	Mixed White	Art &Education	Voluntary	10 ½ months	1	2	Re-employed in their industry
2	Female	37	White British	Sales & Marketing	Non-voluntary	6 months	1	0	Re-employed in a different industry
3	Female	40	White British	Finance	Voluntary	2 years	1	1	Stay at home mother
4	Male	58	White British	Construction & Design	Non-voluntary	2 years	2	1	Re-employed in their industry
5	Male	50	White British	Construction & Design	Non-voluntary	4 years	2	None	Unknown[4]
6	Male	46	White British	Culture & Art	Non-voluntary	2 years	1	None	Freelance work-casual hours
7	Male	33	White European	Journalism	Non-voluntary	2 & ½ years	1	None	Freelance work-casual hours
8	Male	35	White British	Travel and Tourism	Non-voluntary	1 ½ months	1	None	Re-employed in their industry
9	Male	44	White British	Contract Management	Voluntary	6 months	2	3	Self-employed in their field
10	Male	39	White British	Human Resources	Voluntary	2 years	1	None	Unknown [5]

A total of twenty participants approached to take part in the study. Out of the twenty potential participants, ten fulfilled inclusion criteria. Remainder participants were excluded for the following reasons:

- One participant was excluded from the initial recruitment phase as their choice in taking voluntary redundancy was influenced by ill health whilst at work.
- Three participants were excluded from the initial recruitment phase, given they were receiving ESA and therefore too vulnerable to take part.
- Two participants decided not to take part as they felt the interview would be too stressful for them and did not want to reflect on their time out of work.
- Four participants did not attend the interview for no known reason. These four participants were contacted by telephone and/or email to check on welfare but there was no reply.

2.1.2. Recruitment Method

Since 2011, the UK government had implemented the Work Programme, (Department for Work and Pensions, 2012), a two-year Welfare to Work programme for all unemployed UK residents receiving either JSA or ESA state benefits. The programme provides career, health and welfare support through private sector specialist companies under the guidance of the UK's Department for Work and Pensions.

U.K. based Welfare to Work providers were contacted to see if it was possible to recruit participants from their provider offices. A provider showed interest and allowed for participants to be recruited from their employment advisory offices in the South-East.

An advertisement poster was designed, explaining the study and provided the researchers contact details for those interested in taking part. Additionally, information sheets were created for the provider's employment advisory staff to distribute to unemployed professionals they were working with. Posters were placed in all offices and employment advisory staff received verbal advice on the research and recruitment process in team meetings. Finally, employment advisory staff were given the researchers contact details if they needed further guidance.

However, during the first month, interest was low with only four potential participants making contact. Employment advisory staff were approached during a team meeting to see their views on minimal uptake. Staff explained few professionals were being referred by local Job Centre offices, with most unemployed being unskilled workers. It was probable unemployed professionals were initially living off savings or redundancy packages whilst trying to find work. Unemployed professionals would therefore enter the Work Programme, when having to receive JSA and personal finances close to depletion. Recruitment was therefore opened to potential professionals out of work that were not receiving JSA. This was done through the following method:

- As the provider also allowed on-site support from Third Sector organisations assisting in areas such as finance and self-employment, leaflets were provided to them to distribute to their unemployed professional clients outside the Work Programme.

The combination of approaching both Work Programme and non-Work Programme unemployed professionals resulted in an increase in potential participants making contact.

2.1.3. Materials

Materials consisted of the following:

- Information sheet
- Consent form
- Information regarding further health support, (e.g. talk therapy contacts).
- Demographic check-list
- Poster
- Copies of the above can be found in Appendices 2.C. – 2.G.
- Apparatus consisted of:
- Tape recorder, (Olympus tape recorder and a recorder on a mobile phone purchased for the study).

Audio recordings and sensitive Word documentation were securely locked on a password accessible laptop, whilst paper copies were locked in a security box allocated at the research interviewer's office. Any written documents completed during interviews at the provider's premises were securely posted to the research interviewer's office address. Audio recordings and any sensitive documentation were destroyed once interview data was analysed and presented. All security measures were discussed with the provider and participants. Both the provider and participants were satisfied with the level of security.

2.1.4. Interview schedule

The interview schedule, (Appendix 2.H.), was a semi-structured design, allowing a balance between free speaking from the participant and guidance from the interviewer. Questions were designed over a three-month period

and reviewed via City University Ethics under the guidance of Dr Catherine Sykes, (Health Psychology Doctorate tutor and Project Supervisor).

Interviews began with a general ice breaker questions: 'Can you tell me a bit about yourself.' This allowed participants to feel ownership of the interview from the start, get comfortable and slowly flow into the interview. In addition, such a question allowed for the uncovering of many areas from the start of the interview which then determined the route participants took in telling their story.

The interview schedule was used as guide with direction coming from participants. It was therefore common to jump between questions to ensure fluidity in the interview. Additionally, extra questions were asked if the interview prompted so. For example, the additional question of voluntary redundancy was asked which provided an insight into how participants viewed and processed this experience:

Interviewer: *'How did that feel taking voluntary redundancy?'*

Participant 1: *'…it doesn't feel very voluntary. It feels like there was no other option really. And there were lots and lots of pressures, lots of changes, lots of managerial difficulties…It didn't feel like there was a lot of room for anyone really'* (Lines: 174-175 & 178).

2.2. Procedure

Participants were given options to have interviews conducted at the provider's offices in a quiet meeting room or by telephone. If interviews ran over the time agreed with the participant, the options were given to either re-book a further face-to-face/ telephone interview or provide answers through email.

Initially, all potential participants were given information sheets in person or by email and any questions regarding the research were answered. During recruitment stages, four potential participants brought up concerns of the

research interview emulating a job interview, thus causing pre-empt anxieties of the process. To help alleviate any anxieties, the interview schedule was emailed to them and discussed over the phone. Once reassured, these specific participants felt happy to take part.

Before the start of each interview, up to 15 minutes was spent to discuss any queries participants had. Two copies of the consent form were then signed by the participant and the research interviewer. Both interviewer and participant kept one copy of the consent form. Given consent forms included identity details, participants were assured these would be destroyed once the research had been completed.

The interview time was decided upon 1&1/2 hours. Similar qualitative work, (Garrett-Peters, 2009), showed that the allocated time scale was adequate to gain the required data whilst not fatiguing participants. Participants could go over this time if they felt the need to talk more about their experience.

A copy of the schedule was kept during interview to enable guidance and ensure that all key areas were covered with prompts if required. During the interviews, participants were closely monitored to ensure that the questions were not too upsetting. If a participant seemed to be getting upset, a break was taken from the interview and the participant was reassured that they could withdraw from the study at any point.

Following each interview, time was taken to reflect and write down any thoughts regarding the story that had been said, the participant themselves and the overall impact of the interview on the interviewee. This process contributed to stronger consideration and expansion of the results, as well as identifying new areas to be investigated during the next interviews, (i.e. the non-recognition in asking for support from others). Finally, reflection after each dialogue, reduced minimisation of the interviewer's personal thoughts influencing subsequent interviews. Examples of reflection after interviews can be found in Appendices 2.I., 2.I.a.-2. I.c.

2.3. Data Analysis

2.3.1. Using Interpretative Phenomenological Analysis

As the study aimed to investigate and interpret how unemployed professionals made sense of life after a work-related redundancy and how interpretations effected overall health for the better or worse, it was appropriate to analyse transcripts through the principles of Interpretative Phenomenological Analysis, (IPA; Smith, 1996). Per Smith, Flowers and Larkin, (2009), IPA enables careful examination of human experience by allowing the researcher to identify and interpret how participants view and conclude lived phenomena. In other words, IPA allows for the recognition of essential qualities that make up someone's lived experience. For the research at hand, IPA seemed the best qualitative option as it would provide necessary apparatus to identify participants' interpretations from their own work-related redundancy, and how their views promoted or detriment health.

It is important to highlight that at the start of the research, data was intended to be analysed using Grounded Theory, specifically the constructivist approach by Charmaz, (2006). By using Grounded Theory, the original aim was to not only gain interview data from unemployed professionals but from a wider spectrum of individuals involved in the redundancy process, (e.g. human resource staff, employment advisors for unemployed professionals and senior staff at Welfare to Work organisations).

Although Grounded Theory would have yielded rich data necessary to build theoretical platforms in this under-researched area, at this early point of enquiry, the opportunity would have been missed in thoroughly learning how professional unemployed people themselves make sense of life after redundancies and what influences their choices when it comes to their psychological and physical health. Such data is vital, if answers are to be found in whether professional unemployed have the emotional capacity to

cope well during such stressful times? In the case of the present research, IPA allowed for deeper focus on participants' interpretation of living through work-related redundancies, and how these influenced subsequent life choices and health behaviours during unemployment.

2.3.2. Conducting IPA qualitative studies by using a Salutogenic approach

Job loss through redundancy is inevitably stressful, with stress reactions increasing the risks of long-term health concerns, (Popius, Tenkanen, Hakama, Kalimo and Pitkanen, 2013). However, even in such adverse situations, certain individuals will interpret their redundancy and unemployment in a way which disallows distress and protects them from negative health outcomes. When considering this assumption through Antonovsky's salutogenic approach, (1979), and specifically the Sense of Coherence formulation, how do certain participants' comprehension, management and views of life meaning during job loss help them stay relatively healthy?

During the design, qualitative and mixed methods studies using salutogenesis were reviewed to provide methodological guidance, (Idan, Braun-Lewensohn and Sagy, 2013; Lottyniemi, Virtanen and Rantalaiho, 2004; Griffiths, Ryan and Foster, 2011; Albett and Jones, 2007). By doing so, a study by Albett and Jones, (2007), was identified, which similarly used IPA and salutogenic principles to extrapolate participants' health promoting factors during stressors.

The study aimed to investigate how NHS palliative cancer care staff stayed relatively well even though their work role was considered highly distressing. The study commented that although palliative staff would experience more patient deaths than other NHS departments, they showed lower levels of adverse health outcomes in comparison to other health professionals.

By adopting the principles of IPA, the study aimed to explore staffs' personal views of their job role and how they interpreted their everyday work stressors. The authors commented that the use of IPA allowed for the analysis of '…complex data involving staff attitudes and beliefs in a way that is not possible when responses are reduced to predefined categories.' (p: 734). Superordinate themes were then created and mapped alongside health promoting theories. These being Sense of Coherence, (Antonovsky, 1979) and Hardiness, (Kobasa, 1979).

Central to themes were the staff's identity to their job role and how identity influenced their reasons to work in this area. When themes were compared to sense of coherence, staff showing stable health interpreted a sense of purpose. Interviews showed purpose for staff meant making a positive difference for patients and their families. Given their drive to do what was best for their patients, staff reported workload as manageable, even during work overload. Finally, when considering comprehensibility, high levels were found in individuals whom used their work as an opportunity to reflect on their own mortality and spirituality.

When considering the use of IPA analysis and Sense of Coherence formulation, results showed that interpersonal styles contributed to resilience and helped sustain high sense of coherence. Such results supported Antonovsky's view on the effects of personality traits when creating and sustaining one's sense of coherence, (1987). However, the study identified that although palliative care can be stressful it is a constant environment that gives rise to stable coping. As such, results were unable to test the stability of one's SOC during times of sudden change, such as redundancies.

2.3.3. The use of salutogenesis in the current study

In the study at hand, the aim was not to identify SOC scores but to see through interviews how people comprehend their job losses, manage health

and whether meaning is found during these stressful times. To achieve this greater focus was placed on the components comprising sense of coherence, (i.e. comprehension, manageability and meaningfulness), rather than overall scores.

During the current study interview questions were designed with sense of coherence components in mind. This allowed the identification of participants' comprehension, health management skills and life meaning during redundancy. Super-ordinate themes were then categorised under each SOC component to assist with clearer interpretation of results and identifying health promoting factors. For example, super-ordinate theme 'Understanding Loss', reflected how participants made sense of their own personal job loss versus their general understanding of business needs to minimize head count. Given the theme represented participants *understanding*, this was mapped alongside *comprehension* from the Sense of Coherence formulation.

2.3.4. An overview of the process used to transcribe all ten interviews

'There is no clear, right or wrong way of conducting this sort of analysis, and we encourage IPA researchers to be innovative in the ways that they approach it.'

(Smith, Flowers and Larkin, 2009: 80).

All ten interviews were transcribed by writing all spoken words and noting utterances, stutters, sighs, pauses and laughs. Each participant was given a number and any third-party identifiers were removed. Interviews were then read and re-read several times to reach a sense of familiarity and intimacy with each account. Interviews were also heard several times to recall context and emotional content. It was important at this stage to go through interviews in the above manner. It allowed for deeper understandings of

participants experiences of job losses, their comprehension of work-related redundancies and how subsequent schemata influenced health.

The left margin was then used to note anything of interest, i.e. a free association of the data. This process was done several times so as much data of interest could be discovered and highlighted for interpretation. All lines were numerically tagged and associated alongside the corresponding page number. Reflection notes for each interview were written throughout the process to achieve a balance between empathy towards the data and enough suspicion to question what is being said, thus urging further enquiry.

2.3.5. Using three master interviews to create sub-ordinate and super-ordinate themes

When conducting IPA with larger sample sizes, (i.e. N>3), guidance is given by Smith, (1996), to analyse in detail one interview which generates super-ordinate themes, i.e. a master interview. As in accordance to IPA, (Smith, 1996), this is achieved by ensuring homogeneity within samples. All remainder interview analyses should then be successfully mapped onto super-ordinate themes derived from the master interview. If any other themes surface from the remainder interviews these can still be included if important to the study.

For the current study, the sample size was larger, (N=10), with time to analyse each interview in detail posing a problem. Given study needs, a master interview approach was used. However, so as not to miss significant interpretations that may influence theme construction, three interviews were randomly selected and used to construct the list of super-ordinate themes, these being from participants 7, 8 and 9, (interview samples can be found in appendices 2.J.a. and 2.J.b.). Notes from the three master interviews were analysed in greater detail than the remainder seven interviews. This was achieved by categorising and expanding on data

through the following methods outlined by Smith, Flowers and Larkin, (2009):

- **Identifying descriptive notes, (appendix 2.K.)**

Phrases, key words and explanatory comments were highlighted with the aim of noting areas that showed the participants thoughts, in other words, '…taking things at face value…' (Smith, Flowers and Larkin, 2009:84). Notes were therefore exclusively from a phenomenological focus with interpretations left to latter stages of analyses.

- **Identifying linguistic notes, (appendix 2.L.)**

The aim was to note and interpret why participants would use certain types of language and in what context. Pronouns used, laughter, pauses, stutters, repetitions of certain phrases or key words, tone and sighs were noted. These then assisted in interpretations of participants' views.

- **Identifying conceptual notes, (appendix 2.K.)**

At this stage, all initial notes were analysed with a more interpretative eye to start formulating an overview of each master interview. This was done, by reading and listening to each master interview several times once descriptive and linguistic notes had been taken. Reflexive thoughts on key areas noted were then identified for further interpretation.

- **Deconstructing a narrative piece, (appendix 2.M.)**

Whilst analysing the three master interviews, certain sections were difficult to follow and comprehend. To help analyse and conceptualise these parts of narrative, the piece was fractured from the rest of the interview and read back sentence by sentence. This form of de-contextualisation allowed for independent and objective focus on the narrative piece and assisted in analysing and drawing from it necessary themes.

According to Smith, (1996; 2009), it allows for the researcher to avoid simplistically reading the narrative and assuming what is being said by the

participant. Within the research at hand, by fragmenting the section off from the rest of the interview, it allowed for a *bird's eye view* of not only the specific piece but the interview. As such it provided opportunities for further understanding of participants' overall experiences.

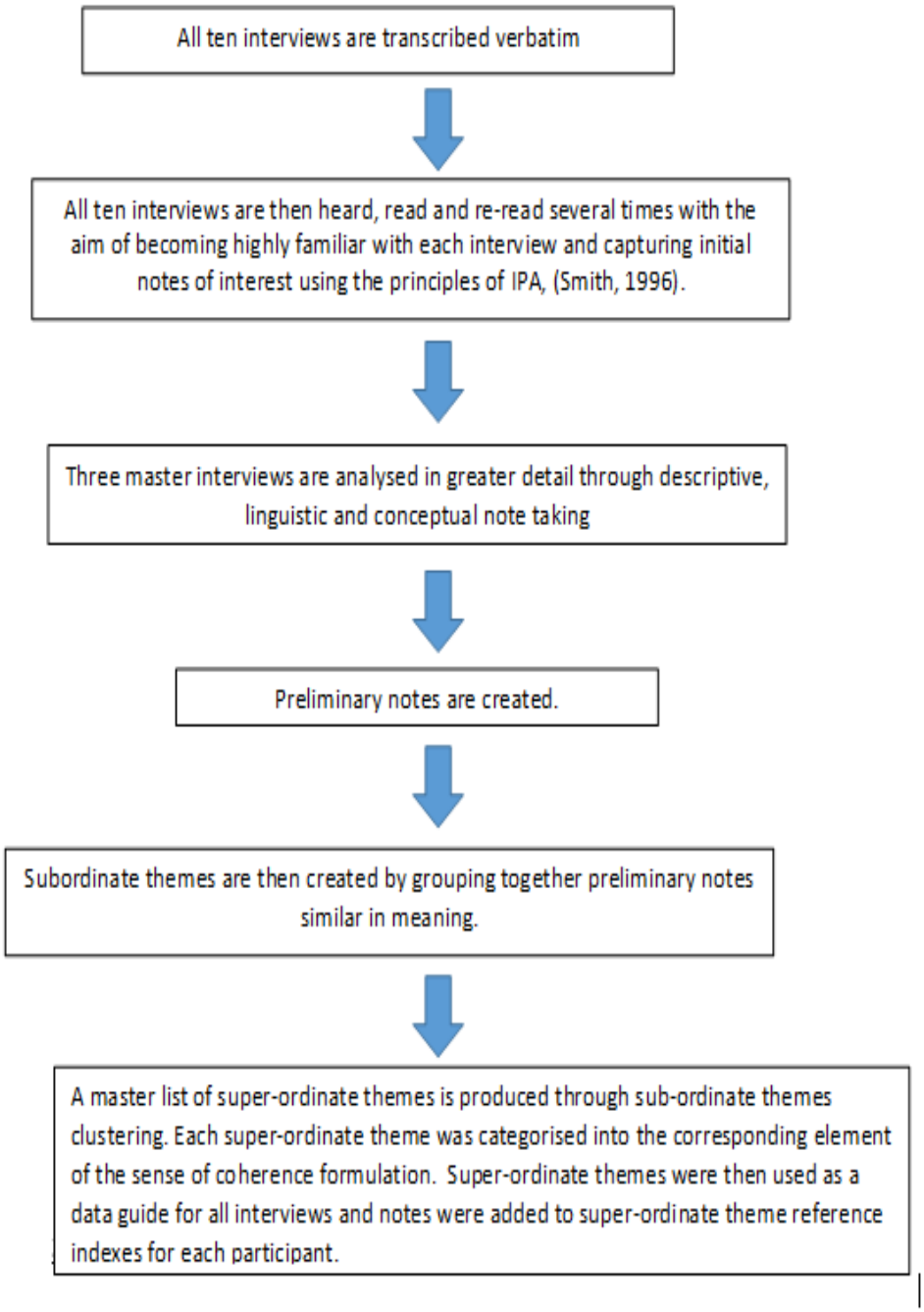
2.3.6. Identifying and creating themes

Preliminary notes from the three master interviews were listed with identifiers to show where they had occurred, (i.e. page and line number). These were then clustered per similarities in meaning by creating colour coded lists on Microsoft Word, (appendix 2.N.). Clusters were then re-read and dropped if not important to the study. The remainder clusters were then merged together to create sub-ordinate theme patterns.

The sub-ordinate themes were later grouped together to create super-ordinate themes, (2.O.). The latter process was completed by listening intently to each master interview, re-reading preliminary themes, reflecting on sub-ordinate themes and questioning how the sub-ordinate themes linked together would be best represented at super-ordinate stages. Both super-ordinate and corresponding sub-ordinate themes were then used to create a reference index for each participant, to help guide the analyses of all ten interviews, (appendices 2.P.a.-2. P.j.).

To assist, the following flow chart illustrates a step by step guide of the data analysis process:

Data Analysis Guide (Figure B.1.)



2.3.7. Data trustworthiness

Trustworthiness of data was reviewed by using Lincoln and Guba's evaluative criteria, (1985). These being:

- **Credibility** by aiming for 'truth' in findings
- **Applicability** by illustrating to what extent findings could be applied in other contexts.
- **Consistency** by reporting a clear analysis trail thus enabling replication
- **Confirmability** by ensuring researcher neutrality and minimal research bias

Credibility

The following techniques were adopted to ensure study credibility:

- **Prolonged engagement**

Sufficient time was spent in Welfare to Work support settings thus enabling the understanding of unemployment culture and specifically unemployed professionals journey from redundancy into unemployment. This enabled the necessary platforms to build trust and rapport with participants during interviews and keep check of any researcher's preconceptions that could increase bias.

- **Persistent observation**

This was achieved through both the repetitive reading of transcribed interviews and reflecting on researchers view-points after each interview. As such, persistent observation, enabled the allocation of emerging themes, helped challenge the importance of these themes in answering study aims and helped pursue further investigations of such themes in interviews thereafter.

- **Triangulation**

This was achieved through the following two methods:

1)Theoretical triangulation- To ensure results were both comprehensive and robust the study involved the use of both Interpretative Phenomenological Analysis (IPA; Smith, 1996) and the Sense of Coherence formulation (Antonovsky 1979; 1987) during study design, interview analysis and presentation of results. Such theoretical triangulation enabled the capturing of participants' worldviews through IPA and the allocation of health promoting factors by presenting each participant's sense of coherence components.

2)Analyst triangulation- Unforeseen interpretations were identified through feedback gathered from the project supervisor, (Dr Catherine Sykes). By providing input through the project supervisor, and therefore beyond the primary researcher understandings, findings were further challenged and other angles of interpretations used. This in turn assisted in advancing the analyses of interviews and create more comprehensive study answers.

In addition, regular telephone and face-to-face meeting times were allocated to ensure the primary researcher had the opportunity to discuss out loud with the project supervisor their interpretations, and test comprehensiveness of findings. This enabled the primary researcher to become aware of their own stance towards the study and affirm study neutrality. Finally, regular debriefing provided opportunities for catharsis, especially vital after analyses of sensitive interviews.

Applicability

Study applicability was achieved through the following technique:

- **Thick description**

Per Lincoln and Guba (1985), the transferability of qualitative findings is different to the reports of external validity from quantitative research. Indeed, authors highlight the equivalent of external validity is 'impossible', (Lincoln and Guba, 1985: 316), as precise reports of external validity cannot be achieved. However, transferability beyond the research at hand can be assisted through thick description. In other words, agreeing to working hypotheses and presenting in-depth data depicting the time and context in which these hypotheses were found to hold true. Researchers interested in the area would then have ample findings to decide whether transfer is possible alongside future research.

When considering the study at hand, the aim was to analyse participants' interviews and present findings that would assist in answering the study aims and further research in this novel area. This was achieved through IPA, whereby participants' phenomenological accounts were identified though in-depth interpretations and the use of theory via the Sense of Coherence formulation, (Antonovsky, 1979; 1987).

Consistency

As per Lincoln and Guba's evaluative criteria, (1985), an inquiry audit was conducted through the following method:

- **External study audit**

An audit of methodology and findings was undertaken by project supervisors, (Dr Catherine Sykes and Dr Lorna Rixon), during research stages. These enabled comprehensive assessments of the interview transcript, participant selection criteria, interview analyses and presentation of

findings. Audits ensured participants interviews and primary researcher's interpretations accurately supported research conclusions thus ensuring consistency in findings.

Additionally, an audit of the methodology and analyses trail enabled duplication of the research process. It is important to note that given qualitative findings are co-dependent on both participants' views and primary researchers interview style and interpretations, such studies can only be repeated up until interview bookings. Although, future research could use the same interview transcripts, the uniqueness found in each interview dialogue between interview and interviewee could not be replicated whilst different prompts may also arise in each interview.

Confirmability

To ensure study confirmability the following techniques were used:

- **External study audit**

Akin to study dependability, an external audit process by project supervisors was used to ensure research findings were shaped by analyses and interpretations close to interview data and not via researcher bias or motivations. The external audit process followed the same methods as detailed in study dependability thus ensuring adequate challenging throughout research stages and final presenting conclusions.

- **Audit trail-** To help achieve study transparency and neutrality, an audit trail of each study stage was kept. Evidences from each stage were as follows:

1)Raw data- this was all initial notes from literature reviews, notes taken during participant interviews and notes during Welfare to Work staff meetings when planning participant recruitment.

2) Data reduction and analysis products- these were condensed notes and summaries derived from raw data. For example, the initial thoughts of raw

data alongside study aims. (For an example of initial notes derived from raw data please refer to appendices 2.J.a and 2.J.b.)

3)Process notes- these were methodological notes describing study design, procedures and rationale.

4)Materials relating to intentions and dispositions- these notes compiled of reflection during the study. These were usually done after each participant interview and during times when the study expectations were reviewed by the researcher. (Examples of study reflections can be found in appendices 2.I.a., 2.I.b., 2.I.c. and 2.I.).

5)Instrument development information- these included preliminary notes and study proposals, (Appendix 2.B.).

3.Study Findings

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3. Study Findings

The aims were to describe how unemployed professionals made sense of redundancies and understand how their interpretations may have effected their health outcomes. Findings would then shed light on how some participants stayed relatively well during such times of great distress.

3.1. Overview

Although interviews consisted of one per participant and completed at a singular time-point, it was clear participants were describing experiences in a dynamic rather than static way. These moved along a linear SOC sequence and gave an understanding of how health was either threatened or promoted from the moment news was given of redundancy to life after job loss. The points below, illustrate participants' common sequential experiences following the sense of coherence framework:

- **Comprehending** the change in identity from the moment news is given of the redundancy.
- **Comprehending** loss once out of work.
- **Managing** life after redundancy.
- Re-assessing life **meaning**.

The above experiences helped generate five super-ordinate themes. Alongside SOC tags and corresponding sub-themes, these are illustrated as:

1)Professional identity (Comprehension)

Sub-ordinate themes:

- *The influence of redundancy on professionals' identity loss.*
- *The loss of professional identity and fitness.*
- *The stressors from committing to the professional role.*
- *The shame from being unemployed.*

2)Understanding loss (Comprehension)

Sub-ordinate themes:

- *The internal battle between general understandings for the business need and process of redundancies; and the personal experiences of redundancy*
- *The health consequences from having responsibility in other employees' redundancies*

3)Assessment of life after redundancy (Comprehension)

Sub-ordinate themes:

- *Initial life after redundancy*
  - *Negative schemata*
  - *Positive schemata*
  - *Confusion Vs clarity during life in unemployment*

4)Managing life after redundancy (Manageability)

Sub-ordinate themes:

- *Coping*
- Support
  - *Positive experiences*
  - The non-recognition in asking for support
  - *Negative experiences*

5)Outlook on life (Meaningfulness)

Sub-ordinate themes:

- The urgency to re-assess life priorities
- Assessing what is important

3.2. Findings

The core for all emerging themes were the levels of importance placed by participants on professional identity and how these levels of importance then influenced shame felt during unemployment. If participants comprehended their job loss as a direct indicator of their overall professional identity than greater shame was felt during unemployment, thus causing negative health outcomes. Participants whom showed signs of stable and good health during their redundancy were individuals comprehending the specific loss as an experience of their professional identity and not a representation of it. As such, shame was felt at more manageable levels with health staying uncompromised.

Super-ordinate theme 1: Professional identity (comprehension)

The identity, 'professional worker', can be viewed as an entity that represents long-term hard work and sacrifice to reach a significant occupational status. This identity becomes ingrained and embedded in one's representation influencing not only how they understand their careers but overall life. For example, professional identity can:

- **Influence how professionals comprehend themselves,**
- **how society sees them,**
- **how they manage both personal and professional life**

  and

- **meaning they give to overall life accomplishments.**

The abruptness and sometimes ruthlessness of redundancies, will place professionals facing the loss of their jobs, in life situations where they are forced to re-evaluate not only their professional identity but their overall identity as people.

- ***Sub-ordinate theme: The influence of redundancy on professionals' identity loss***

For some participants, the essence of their story was the loss of their specific job role identity and how this was incorporated into their overall professional self. Due to the swiftness of redundancy, participants also faced a forced re-assessment of self-identity after job loss. Thus, such changes would impact health either in positive or detrimental way.

For some participants, job loss meant the loss of a post that they loved and dedicated themselves to. An example can be seen in the interview from participant 8 who lost their post through involuntary redundancy. For the participant, their job loss had meant losing without choice a professional entity they were passionate about:

Interviewer: 'Did you enjoy your role?'

Participant 8: 'Loved it! So, doing something creative…um, I had a great team that I had known and worked for pretty much the entire time. Even from when I started, so 11 years of the same people that I'd worked with…we all worked well together' (lines: 1-8).

Given the love and the duration spent at their job role, the post itself represented most of their professional identity. The participant had help shape their job post but were also shaped by it. This was not only through work duties but through building strong lasting bonds with colleagues. As such, the loss for the participant was great and much felt. This uncontrollable loss from involuntary redundancy, showed to cause an initial state of confusion after job loss, thus impacting health in a negative manner:

'Lost. Lost…I almost remember that the next Monday that was a normal week, I remember going to bed on the Sunday night and just thinking I don't have to get up tomorrow and it wasn't in a good way, which then kept me up…I was having a terrible sleeping pattern' (Participant 8; lines: 163 & 190-196).

Similar interpretations can be found in participant's 6 accounts who envisaged the loss of their six-year post as *'awful'* (Lines: 81). However, in the case of participant 6, they had left a working environment which at the end created many stressors for them. At the time, participant 6, returned to work after taking sabbatical to care for his terminally ill partner. For him, the return to work should have been a return to normality. However, participant 6 interpreted a time of great negative change leading to his inevitable job loss:

'I went back to work assuming I would have a supportive team behind me…which I didn't…they'd had this restructuring, this new manager decided to get rid of all managers she inherited basically.' (Participant 6; lines: 68-80).

The above participants had experienced redundancy through involuntary processes. As such, the redundancy was both abrupt and without choice to leave. From a salutogenic perspective, it is therefore understandable, participants would experience low comprehension which would cause negative health effects such as sleeplessness, (i.e. participant 8). Regarding voluntary redundancies, would this mean choice to leave, provided the necessary comprehension to safeguard one's health during the process?

When considering voluntary redundancy from an organisational perspective, this would mean an element of control and agreement from the employee to give up their post, (Vickers and Parris, 2007). In contrast to this assumption, participant 3 whom had undergone voluntary redundancy interpreted the time as pressured and forced, thus showing similar emotional stressors to that of involuntary redundancies.

For participant 3, the voluntary process brought similar urgency to re-assess identity, in this case the abandonment of temporary home-stay mother with the aim of returning to the professional role after maternity leave. This in turn, seemed to have caused much confusion about whom they were, i.e. a full-time mother, redundant professional or both. Equal to participants who

had gone through job loss involuntarily, certainty derived from the knowing of a possible loss of their past professional identity:

'I was thinking, well that means that you are giving up a steady career that you have worked on for 15 years that I have built up and got into a senior role and, you know, the financial aspect as well, giving up a decent salary, you know, it is a really hard decision to make and I probably wasn't thinking that objectively at that time as well. I wasn't quite in the right frame of mind.' (Participant 3; lines: 60-65).

The above resulted in an internal battle between past identities of professional, prospective identities of first-time mother and threatening identity of unemployed: *'…I just felt like, I ended up having to use energy up on thinking about this decision and also about, you know, the stress and worry of the whole thing when actually, I should have been relaxing and getting ready and being excited about the birth of the baby.'* (Participant 3; lines: 91-95).

When queried whether they felt the redundancy was voluntary, the participant commented on the forcefulness of the process to agree with the employer's terms. In addition, the participant saw voluntary redundancy as purely beneficial if they had the security of another job at hand:

'I don't know that it was strictly voluntary. Yes, I had to sign a piece of paper to say, yes I would like to take it but it wasn't really voluntary, I kind, I felt like I was backed into a corner. I was in a position where I didn't have a choice, you know. It is voluntary because it suits the employer to make it voluntary, you know. [Pause], it is not, it is not voluntary for me…Yes, I think that they, (employer), you know, they give the opportunity to take voluntary because some people could…some people could know they have another job lined up, and they walk away with a voluntary package, a couple months later, go into another job…it might be voluntary if you are lucky.' (Participant 3; lines: 111-121).

Similar stressors from job loss via voluntary redundancies were also identified in other participants. When considering participant 1, she reflected on the job they loved and lost. Although the post at the time did not allow for the participant to improve financially, the content of the role encapsulated their professional identity:

'I loved it. I really, really, loved my work. I really loved the team that I was working with. I had the best manager there…that was big thing for me. I took a slight pay cut or I didn't go up financially when I was going there…I wanted to go to a place that I could really get my teeth into'. *(Participant 1; lines: 9-12).*

Akin to participant 3, voluntary redundancy was not perceived as 'voluntary' with health outcomes on par to those felt by professionals whom had lost their posts involuntarily. In the case of participant 1, the roll out of voluntary redundancies represented a threat from external sources causing an end to the ideal professional identity:

'…it doesn't feel very voluntary. It feels like there was no other option really. And there was lots and lots of pressure, lots of changes, lots of managerial difficulties. Not with my direct managers *who were brilliant but from other departments within the council…So most of my colleagues were made redundant'.* (Participant 1; lines: 174-178).

For them, the subsequent health outcomes following their voluntary redundancy, were the fears of stagnation from long-tern unemployment causing the ownership of one functional identity; that of stay at home mother. Such changes caused an under-utilisation of internal resources, bringing on stressors from not contributing as before:

'…I know for my own sanity that I need to work. That I need to have some other thing in my life apart from, [pause], and I know the children need that as well. I think they need to have something else for me to bring to bring to the table. Not purely me being around every day, all day, every day.' (Participant 1; lines: 259-261).

Voluntary redundancy can therefore bring on similar stressors of loss and negative health consequences. Although a process that is giving to the employee an element of control and choice in them leaving, when felt forced by the professional it can bring on lower comprehension than hoped by the employer. As such, the overall job loss can have negative effects on one's health. However, in some cases voluntary redundancy can place professionals in a place of control which in turn provides clarity in the loss and health promoting factors. This can be seen in participant's 9 comments when referring to their second redundancy:

'…so I took the voluntary redundancy and left, on my own terms.' (Participant 9; lines: 181-182).

However, even though participant 9 had left their role contributing to their final settlement, this does not mean that stress was not felt:

'I had been in the game long enough to see the signs and to listen to what was going on…it was a disappointment.' (Participant 9; lines: 185-188).

Although the participant had left their job role feeling disappointed, a combination of going through voluntary redundancy and previous redundancy experiences safeguarded them from worse health outcomes. Their knowledge of organisational choices to instigate redundancies, had enabled them to negotiate their leave and keep some control over their experience. As such, this specific role was comprehended as a normative experience of the professional identity rather than a main example of whom they were in business.

Similar interpretations can be found with participant 4 whom alike to participant 9, had experienced more than one redundancy. For this participant, their first redundancy had been from a role that they had spent a long period of their working life and subsequently would have been shaped professionally by it. It is therefore understandable that the first redundancy impacted on them greatly:

'…the first time was a bit devastating because it was effectively after 25 years, and in those days, many people used to work for a company for life…I remember going to a presentation for a guy who'd started at 15 and left at 65.'' (Participant 4; lines: 127-130).

From the above, the redundancy from a life-long role was an enormous loss to the participant. The participant did not only lose a job role but an opportunity to start and end his professional career with one company that he held dearly. He had lost the chance to finish his professional duty out of choice, such as the colleague whom left with a retirement presentation.

However, for this participant the experience of such loss created better comprehension of job loss. For example, it provided the necessary knowledge to create safeguarding measures protecting them from similar stressors in the future. Additionally, given the significance of this job loss, the participant may have interpreted it as being the greatest professional loss they would ever feel, with subsequent redundancies not reaching similar emotional magnifications. Finally, the participant had rationalised the second redundancy as a reflection of today's economic precariousness. When considering all these interpretations together, the participant's experiences from the first redundancy, provided the necessary components to help sustain better health during such stressors:

'Well that's the second time I'd been made redundant so I was perhaps a little more familiar with it…these days I think if you can manage 25 months you're probably doing quite well with many employers.' (Participant 4; lines: 90 & 135-136).

- **Sub-ordinate theme: The loss of professional identity and fitness**

The importance of identity and subsequent health outcomes, was also found in participants' accounts, whom whilst in work kept regularly fit. Participants' accounts showed a commitment to healthy lifestyles and an awareness of the psychological and physical benefits from exercise:

'…I used to walk home a lot…I lived here (Wandsworth, London) and I used to work in Victoria and sometimes, like three times a week at least I'd walk from Victoria to here.' (Participant 7; lines: 256-259).

'I used to go to the gym. So, I used to do gym classes two or three times a week, plus I would go for a run and I used to do yoga, so you know, I was the fittest I had ever been, probably at that point and I felt healthy; I felt really good' (Participant 3; lines: 277-280)

'…one of things I set up, (for the business), was a self-select benefits programme, flexible benefits, part of which was gym membership…I'd go there at the crack of dawn every morning before going into work, that became my routine and that was incredibly good.' (Participant 10; lines: 259-264).

In contrast, to the above, during unemployment participants exhibited a decrease in physical activity. Although participants had a clear awareness of the benefits from exercise, during joblessness, a lack of purpose was comprehended in staying fit and healthy:

'Then you're at home. I think your confidence starts just going low and then the money is going low as well, so you think, well, yeah, you can go and have a walk but why would you, why would you, [pause], what you go outside for? Are you going to walk like crazy with no purpose and so you just kind of, [pause], I don't know, [pause], maybe your kind of reverted, [pause]. Yeah, I spent a lot more time at home. A lot more time at home.' (The latter sentence was said louder and with more emphasis). (Participant 7; lines: 277-283).

The above comments, also show a positive relationship between physical inactivity and the gradual reduction of financial resources from being out of work. For participants, the loss of the identity of well-paid professional, caused a direct loss of fitness opportunities they were accustomed to:

'…financially I am not earning what I was earning before and I just couldn't justify it, (i.e. gym membership) …' (Participant 3; lines: 288-289).

'…part of me would think why pay for the gym because I don't have a job?' (Participant 8; lines: 324-326).

However, it is important to note that the loss of earnings needed to maintain resources such as gym memberships, was felt at deeper levels for certain participants and represented a greater loss to them. For example, loss of gym membership, was interpreted as a loss of all things loved and associated with professional working life. From a different angle, this can be seen as representing the deprivations linked to unemployment, i.e. an inability to exercise regularly and maintain both good psychological and physical health:

'…in the back of my mind, I just thought I can't do this, I shouldn't be doing any of these things that I love doing, [pause]…it was stress that then affected your physical being, I don't know, just so tired within your body because of worry, because you knew in your head you shouldn't be doing the things you loved doing because it's costing money. You will eventually run out of if you don't get a job.' (Participant 8; lines: 332-338).

- ***Sub-ordinate theme: The stressors from committing to the professional role***

Akin to changes in identity, participants found the redundancy process a time to reflect on their professional identity and what that meant to them. For most, being a professional meant a level of commitment and duty to their role even when faced with the threat of job loss:

'I felt very shocked but I [pause] at that time, it was kind of being like a mother to my team who were really [pause] a lot of them were young, sort of 18, 19, some of them were crying, so it was more like [pause] I would say it was more of a supportive role at that point. I think it was a few days afterwards that I worried more about myself…' (Participant 2; lines: 27-30).

The above passage not only shows a strong commitment to the professional identity but a deeply felt commitment, with professional duty taking on a maternal protective role. For participants, various types of commitments were identified during analyses. Although these be differing in commitment type, these were all synonymous in showing pledge and duty to their professional identities.

For example, the *love* for the professional role, increased commitment even when faced with the stressors of losing the job. In the case of Participant 8, such love caused an elongation of their stay even when faced with inevitable redundancy. For the participant, professional commitment had been comprehended as a need to see the business to the bitter end:

'In some way I had thought to myself I had loved that company so I thought I want to be the one who's going to close it down.' (Participant 8; lines: 118-120).

For others, commitment to the professional role represented their personality traits of *all or nothing* thinking. Although life of work may have had large demands causing distress, these were of choice in comparison to job loss through redundancy:

'So, in work I was an all or nothing sort of person. I worked grossly excessive hours, but because I wanted…So you go from I guess giving yourself a tough life in that environment through choice.' (Participant 10; lines: 180-184).

Results indicated comprehension was clear when referring to final business duties but in terms of the effects of redundancy on oneself, comprehension became limited. This in turn impacted on participants' psychological health. For example, participant 8 found himself clearly comprehending final duties, (i.e. shutting down the business), although feeling internally confused about the job loss: *'Lost. Lost, um a bit anxious'.* (Participant 8; line: 163).

The commitment to the job and welfare of staff during mass redundancies can therefore be seen to have both health promoting and health reducing

factors. During redundancy, a focus on final duties can deflect attention from job loss thus reducing distress from the inevitable truth of unemployment. However, such deflection can delay clarity in one's own job demise, causing stress reactions once the reality has sunk in:

'…I had a team meeting with my team and they were, a couple of girls were really upset and they were saying, we are just sad for you because we could go into, we, at least, have the opportunity to go into the new team but you can't have two managers and so we are really sad for you. And they were sort of crying for me which I found, [pause], I think that was part of me realising that oh yes, this is actually a real problem for me and yes…then I think I guess there must have been a time of panic.' (Participant 2; lines: 41-48).

• ***Sub-ordinate theme: The shame from being unemployed***

All participants referred to the shame of losing work and worries of being seen negatively whilst unemployed. Given the commitment to the professional identity, fears of being unemployed and how this would be comprehended by others caused psychological distress. For some participants, the shame of being out of work started during the redundancy process. In the following passage, participant 2 described how being made unemployed brought on shame during her last day at work:

'So, I felt, I then did a bit of a walk of shame. I felt, I like, I was, walking out in shame, taking out my box of things from my desk and going that day…' (Participant 2; lines: 73-75).

Similarly, in his accounts participant 8 described how whilst working his redundancy term, they were reminded of the end by colleagues' safe in their roles:

'Um you've got part of the company that is still operating and everyone is still in work who is saying "can't wait for the 1st April because this is going to

happen." And you're thinking well I won't be there at the 1st April. (Participant 8; lines: 79-83).

For the participant, the knowledge that colleagues in other departments were safe, created a feeling of isolation. Whilst working their redundancy term, the participant felt a stark contrast between their professional identity and those of colleagues' safe from job loss. In this case loss seemed to be exacerbated by the everyday reminders of their inevitable loss. Not only were reminders visual, (i.e. by seeing safe colleagues whilst at work), these were also verbal:

'I couldn't sleep because I didn't know what I was going to do, people would constantly say, "oh how long have you got left?"! (Participant 8; lines: 145-148).

As a result of such comments, the participant would have questioned their own existence in the company, bringing on feelings of shame given they were to be 'let go' and others around them not. This in turn was amplified when instructed to provide general help during the last stages of their redundancy term:

'You just down tools…and someone might go to me, "can you do this for me you haven't got anything to do have you?" (Participant 8; lines: 94-97).

Shame was not only felt from losing their professional identity that they had built, but from also being 'demoted' during redundancy. Thus, perceptions of being different to their job-safe colleagues brought on further shame, resulting in feelings of isolation at work:

'*I hadn't been told, what to do for so long and being in charge of a team to then…well not even in a team, just on your own, being told can you do this for us.'* (Participant 8; lines: 99-103).

Such perceptions of difference, can also be viewed in comments by participant 6. In his interview, shame was felt by being a warning to others of their own professional mortality:

'…some friends are actually very wary of me. It's almost like [pause], they don't want to be reminded that you can be relatively young and successful with a good income and everything going your way and within a short period*, having everything overturned. You know you can be poor broke and ill when you you're old and suffer bereavement, but when you are kind of middle aged you're not supposed to…People don't like to be reminded of that…I know they can't cope with it, it just freaks them out'* (Participant 6; lines: 666-679).

Due to their perceptions of being a shameful example of what may happen, the participant decided not to disclose their unemployed identity whilst job hunting:

'I won't say I've been unemployed.' (Participant 6; lines: 827-828). *'I'll say that I've been doing, been doing a mix of paid and unpaid work over the five-year period… I'll avoid the word unemployment. I might admit to underemployment which I think a lot of people are going through and I don't think that will be treated in such a negative way as unemployment by a potential employer'*. (Participant 6; lines: 835-841).

Participant 6 rationalised their decision by believing that:

'I don't think employer X would have looked at me seriously had I said, I was unemployed…I don't think they would have looked at me twice.' (Participant 6; lines: 842-847).

By keeping secret, the identity of unemployed, the participant was safeguarding themselves from their shame of being unemployed and fear of being stigmatised as unproductive, i.e. no longer a professional by future employers. This would have been a health promoting strategy protecting them from the worries of disclosure. However, although their strategy minimised feeling of shame and perceptions of stigma, the benefits would have been short-lived. Maintained over a long period, keeping such secrets required high levels of internal resources, creating distress from being found out. This could have placed the participant at risks of health detriment.

When referring to the participants' demographic data, they were unemployed for two years and maintained secrecy of their joblessness for this length. Thus, the participant admitted how vulnerable they felt whilst unemployed and regrets not seeking external support:

'…more vulnerable than I thought I was in some areas, and I should always ask for help basically…Had I asked for help, I might have avoided the whole lot.' (Participant 6; lines: 818-819 & 834-835).

Findings showed shame was better managed, by participants, whom comprehended a need to overcome shame from the onset of job loss. In these cases, participants did not solely focus on their job loss but concentrated on what was universally important to them.

For example, shame from job loss was superseded by the urgency to provide for family:

'…um you know, it is a bit of a kick in the teeth, unless you have got the things that I have got, which was all of a sudden, three children relying on me which means that pride and everything else went straight out of the window. Um so this time, I was not embarrassed about, [pause], you know, I was in the Job Centre within minutes of being made redundant, making sure I signed on, got everything that I was supposed to have.' (Participant 9; lines: 472-480).

From the above passage, the participant admits to distress caused by shame of job loss by referring to his experience as 'a kick in the teeth', (lines; 472). The difference here is initial shame was not allowed to take hold. Instead, the participant comprehended redundancy as an urgent time to re-assess life duties and protect what was important to them. In this case, providing for their children. When considering from a health perspective, a greater focus on what was valuable to them, hindered internalisation of job loss. By focusing on the wider picture, this created health promoting variables necessary to stay well during the stressors of redundancy. In the case of

participant 9, this was to place the shame of job loss to one side and seek support from their Job Centre.

Similarly, participant 2 whom as previously stated, felt shame during their final days at work (lines: 73-75), quickly managed their shame by focusing their energies on finding new employment:

'I like routine and I am quite good at just getting up, doing it…even though I was out of work for six months, it was a busy six months in terms of interviews…' (Participant 2; lines: 127-130).

When asked by the interviewer how they managed to stay motivated during unemployment and thus disallow shame to take hold, participant 2 responded:

'The feeling [pause] really believing that this wasn't going to be like this for very long, that the next interview was the one…I did not get to the stage where I started to feel like my prospects were not good. I always felt quite employable.' (Participant 2; lines: 1135-141).

Although shame was present during the redundancy process, the participants' belief in one's own professional identity allowed them to manage such feelings. From a salutogenic perspective, self-belief in their own professional identity, allowed them to understand that life in unemployment was not permanent and could be rectified through job searching. This comprehension, allowed them to secure work within six months from redundancy.

Super-ordinate theme 2: Understanding loss (comprehension)

For all participants, the experience of redundancy brought on a degree of loss. For some they found themselves surprised by the level of loss felt, discussing their experiences in similar context to that of bereavement:

'…it is like a process of [pause], a bit like [pause], you cannot obviously compare it but in the same way you have a bereavement; you have anger, then you have disbelief and not acceptance and things like that, so yes, you go through all the stages.' (Participant 2; lines: 31-34).

- ***Sub-ordinate theme: The internal battle between general understandings for the business need and process of redundancies; and the personal experiences of redundancy***

Although loss was felt deeply during the redundancy process which as can be viewed in the above comments brought on a plethora of emotions, contradictory, participants gave clear and comprehensive explanations for their employer's strategies to put forward redundancies. Their occupational status, enabled them to understand the strategic reasons for job cuts, including their own roles:

'…an office in Germany, Berlin, is a hell a lot cheaper than an office in London, so it makes sense to do that. A lot of the senior leadership team had their families in Germany as well…so another good reason to have an office in Berlin…it made logical sense for that, the Group HR Director, (i.e. own role), *should also be based in Germany…'* (Participant 10; lines: 37-43).

Similar business understandings were echoed in the following descriptions:

'I started to get wind of the fact that cuts were going to need to be made because um rules were changed um in the laws around being able to deliver lotteries, it became quite clear our end goal, our project, um you know, was not going to happen.' (Participant 9; lines: 37-43).

'...I know that they didn't want it to happen and I wasn't unpleasant about it…I felt more sorry for them really. I knew that if I had been in their position, I would probably have to do it as well.' (Participant 5; lines: 115-116 & 119-121).

Although, there is a consensus in job cuts to ensure business survival, this did not mean the personal impact from job loss was not felt and caused emotional distress. Participants found themselves battling between the organisational logic of restructure through redundancies and their own loss:

'…so the objectives were very clear from a business perspective, so I did understand that…and I knew it wasn't a personal thing, that is not to say that I wasn't personally aggrieved about it. I did feel "You, (employer), *have done this to me". Even though I understood about why, I was still angry about it.'* (Participant 2: lines: 98-103).

Similarly, findings showed participants using their professional status to rectify the risks of redundancies within their organisation:

'…my team put forward a proposal about how we could make it work financially…' (Participant 1; line: 82).

Although the participant had tried to understand the business reasons behind the job cuts and proposed strategies to reduce these risks, their ideas were 'rejected', (line:83). Given the outcome the participant found themselves battling to comprehend the business decisions of redundancies and their own dispensability. This in turn lessened comprehension of the general redundancy process resulting in feelings of caginess dealings and being targeted by the employer:

'*So, they obviously had their own agenda…So it wasn't purely financial. There were other things going on that we weren't party to, I guess...sort of a strange time…a very sort limbo-ey time really…they told us all our jobs would be "deleted". Which I thought, the term they used, that they said "you are all*

going to be deleted". Not your jobs but "you are all going to be deleted!" (Participant 1; lines 83-84; 122-125).

- ***Sub-ordinate theme: The health consequences from having responsibility in other employees' redundancies***

When referring to participants' professional backgrounds, only participant 9 had discussed the experience of job loss by having to make employees redundant. They reflected to their time as a manager in their mid-twenties when they oversaw staff redundancies, which led to their own job loss.

Even though, the below data is from singular accounts, it is important to include as it is of significance when referring to this specific occupational cohort. Indeed, IPA guidelines advise the use of data from one source if seen as adding to research, (Smith, 1996). Given the management status of many professional workers, they may be faced with the responsibility of terminating other people's job posts. If the responsibility of making employees redundant is comprehended negatively, this may cause much distress and impact on health in a maladaptive way:

'I suppose the alarm bells should have gone, maybe because I myself had to make 120 people redundant um, [long pause], *um, which was the first time I had ever done anything like that and of course wasn't given any training or support or back up on how to do it. I was quite young…'* (Participant 9; lines: 47-53).

Even though this event had happened 20 years ago, and health effects had subsided, the level of impact to health was significant enough to be re-addressed during interview:

'…I cannot stress, at that age, how difficult it was to keep telling these people they hadn't got a job and it was having a real effect on me; it was really upsetting me having to do it…' (Participant 9, lines: 68-71)

'…during the time period when I was having to let people go, I wasn't sleeping; I wasn't eating; I was stressed. Um, yes, I mean, generally put through the wars. I didn't know how to process, you know, sitting in a room with a grown man who suddenly bursts into tears because he hasn't got a job and money anymore and the next thing having a person threatening to punch you and other people saying, yes I understand. So, because it was a wide range of emotions I was having to deal with, to be honest with you, I did not have the capacity to be able to process that.' (Participant 9; lines: 80-92).

The impact of redundancies is determined on how the person losing their role perceives the experience. Mass job losses therefore creates environments with various perceptions and emotional reactions from those losing work. Although managers may understand the organisational needs for mass job cuts, they will have to oversee not only the practical implications of job loss but emotional reactions from their staffs. This places the manager in a vulnerable position where distress is felt by them, especially if support resources to assist managers are not in place.

For the participant, the cause of their internal distress was their confusion between their clear comprehension of business job cuts and the personal experiences of job cuts whilst managing redundancies. As such, the participant could understand their duty and deliver messages of job loss but found their own health hindered during the process. This was increased by their lack of experience in handling redundancies, young age and feelings of no support from their employer. The management of redundancies had taken its toll and caused health reducing factors:

'So, I went through a period of not being able to sleep, it made me very irritable, um, [long pause], *very depressed and very down, without a doubt.'* (Participant 9; lines: 92-95).

The distress felt by staff and themselves, shaped general views of redundancies and played a significant part when handling their own job loss:

'…I was told by my bosses that I would be absolutely fine, you know…do the dirty work but don't worry…and all of a sudden I was called into a room and told I was basically being made redundant as well, so they went back, totally on their word.' (Participant 9; lines: 58-65).

The plethora of experiences and emotions scathed the health of the participant to the point where it resonated for them during the present interview. This significance represents the dangers of negative professional experiences in influencing health not only in the past but during current times. Betrayal from employers manifested into ongoing mistrust during future job posts:

'I have been in the industry for 13-14 years and um I had enough of working for dishonest people to be honest with you…it was all about politics which I never been particularly good at…' (Participant 9; lines: 140-148).

The participant found themselves using the above history and his most current redundancy as a moment to reflect on what job loss meant to them. The review of controlling others redundancies and being controlled by employers themselves, resulted in a review of their professional identity. Coupled with the urgency to provide for their children the participant saw his loss as a life affirming situation and started to comprehend the possibilities of self-employment. Although their mistrust in employers was exacerbated and they were going through understandable pressure, the second redundancy was perceived positive and consequently health promoting:

'…it was like, uh, like a breath of fresh air, the second time. It was okay, it now forces your hand to change life and do something different you know. There was no more: I don't know if I can, or if I should, or I am worried about it. I did not have a choice, you know. I have got three children that I am looking after…' (Participant 9; lines: 214-219)

Super-ordinate theme 3: Assessments of life after the redundancy (Comprehension)

- ***Sub-ordinate theme: Initial life after redundancy:***

➢ ***Negative schemata:***

Participants showing greater levels of confusion after redundancy, found themselves more negatively skewed whilst unemployed:

'I didn't like it in the beginning because it was um, [pause], it was new, [pause], and I got scared. I used to get scared because I didn't know. I used to think, oh I won't be able to pay the rent. I used to see myself under the bridge, [nervous laughter and a long pause]. (Participant7; lines: 309-314).

The above passage shows the initial state of ambiguity causing much uncertainty in how to cope and survive during unemployment. Although jokingly reflecting on these first experiences of unemployment, the participant escalated their fears to a level that could have initiated a suicide attempt[4].

Distress of unemployment was caused by comprehension of redundancy as representing a total loss of their professional identity. Hard work and dedication to their career had been perceived by them as wiped out and no longer an option. These perceptions surfaced when discussing future employment:

'If it is my area? I don't think it will happen. That's why I will be, [pause], it's like having to prove yourself all over again and I've done it when I was 20. I don't want to do it again! I don't want to do it again!' (Participant 7; lines: 104-110).

The comprehension of redundancy as a loss of one's career caused the participant to adopt avoidance to manage distress. The participant

[4] During the interview, the client's welfare was assessed.

explained the necessity to avoid their fears and the consequences if they faced them:

'*I don't think too much about it…I'm sure I would kill myself, [laughs], so I don't think about it…I just get depressed.'* (Participant 7; lines: 127 & 139-141).

As such, avoiding their fears kept their distress at manageable levels. However, when reviewing demographic data on re-employment this strategy disabled them to confidently apply for work in their field resulting in a period of causal work to get by.

Similarly, other interviews showed negative interpretations shortly after the redundancy and the adoption of avoidance to cope:

'…the first sort of five or six months of 2010 I was in complete panic mode and a bit of a mess really.' (Participant 6; lines: 322-325).

Although inside the participant found himself in an anxious state, this was masked to the outside world:

'Not outwardly, outwardly I would have looked fine, so people in the Job Centre, I would have sounded perfectly normal and getting on with stuff.' (Participant 6; lines: 325-328).

Similar to participant 7, avoidance had caused them to not pursue similar work and rely on casual hours.

For participant 9, their first redundancy was initially comprehended as a sense of freedom, however fuelled by anger to prove their employer wrong:

'Um, I was very angry…Um I got out of there and the first thing that it did to me was it, [pause], *actually in a weird way, it invigorated me because it made me think: Right stuff you! I am going to prove to you I don't need this, you know, I can find something better',* (Participant 9, lines: 96-102).

However, participant's 9 drive stemming from anger towards his employer, quickly subsided showing a bleak reality of unemployment:

'…but within a couple of weeks, [pause], *um, yeah basically,* [pause], *I was redundant for a year after and um, I got to the point where I wasn't getting off the sofa to go to bed; I was just lying on the sofa all day and all night. Um, I started to drink heavily; I was,* [pause], *yes, in a real state, a real state.'* (Participant 9; lines: 102-108).

- ***Positive schemata:***

Although the initial stages of unemployment brought on anxiety felt by all participants, those whom quickly comprehended unemployment as opportunities maintained better health.

For some participants, the concept of no longer going into work had positive points:

'…once it had finished the actual being then redundant was almost, in some respects, slightly better, [small chuckle], *because you know that, that is the case. You didn't have to get up to go to this place that wasn't being very helpful. They wanted to keep me there to help, you do this, that and the other, whereas it wasn't helping me at all. So yeah.'* (Participant 8; lines: 165-173).

As time passed, some participants saw unemployment as a chance to slow down and be mindful in everyday activities:

'I mean I sort of thought well it's given me some time off, I can go and do some things that I want to do…I'm quite happy wandering down a street you know, I can look at buildings, I can look at the surroundings.' (Participant 4; lines: 170-177).

For others, time away from the workplace was comprehended as an opportunity to affirm other important identities. For example, being unemployed had meant a time to focus on motherhood and comprehend an identity beyond the professional worker:

'I feel like part of me is more confident than I ever was, because I found another aspect to me that I never knew existed. I didn't think, I was going to be a natural mother at all, [laughs]! I have not really been maternal and not really had the maternal instinct. I didn't think but I have turned out to actually enjoy it a lot more than I thought I would. So, I have definitely gained from that point of view but, you know, it has made me think of myself as a mum and not a professional woman, as I always have been.' (Participant 2; lines: 254-261).

'The benefit of not being able to secure a job has been that I have had an opportunity to spend more time with B & C which in part has been brilliant. I've got to see all of B's early development which I just wouldn't have had to the same extent. I've been available for C at the beginning of them starting school which would've been difficult to have missed.' (Participant 1, via email; lines: e 18- e 21).

- ***Confusion V's Clarity during life in unemployment:***

During unemployment, other participants found themselves in longer periods of confusion which caused health reducing factors. In these cases, participants spent time trying to fathom why they were in a state of unemployment given their professional capabilities:

'It's like, uh [sigh], it's, it's, it's weird. Having so much to give, so many skills and not being able to put it out there? It's, it's very weird, especially having a background and having experience and um being good, because I have no doubt that I am good at what I do…I don't even know what it does to you, I don't know [sigh].' (Participant 7; lines: 69-76).

Confusion also travelled into life after job loss, creating a platform for underlying anger and questioning the truthfulness of future employers. This in turn caused psychological stagnation in both motivation and confidence when job hunting:

'…I send it, (i.e. covering letter), *out to the ether and after that I have no control over it, so there is no point in wasting my time speculating whether they like it or not and despising them because they don't see how valuable I am to them, or being grateful to them because they sent me a kind word'.* (Participant 5; lines: 219-223).

However, confusion came in contrast with participants' interpretations whom found themselves predominantly comprehending the redundancy as having no association with their professional capabilities. In these cases, comprehension helped create a buffer and maintain wellbeing:

'For me it was fine, because having seen it coming I had the chance to get my head around it and I actually took it as a good opportunity to, [pause], ok, timing of the marketplace, terrible, because of the financial crisis and all these other things that are going on, but timing in terms of I'd spent a couple of, you know, over a couple of years building up the business, I'd got a lot of things either off the ground from scratch or I'd taken them light years on from where they were when I joined…so the house was in order, so great opportunity to, I've done my bit, hand the reins on to somebody else, and my turn to find something else that gets me excited in that way…' (Participant 10; lines: 49-56 & 59-62).

<u>Super-ordinate theme 4: Managing life after redundancy (Manageability)</u>

Choices in adaptive or maladaptive coping styles became a consequence of how participants:

- Comprehended their experiences of redundancy,
- how confident they felt in their own professional abilities to regain employment

and

- whether they succumbed to the fear of being seen in a negative light by others, (e.g. peers, future employers), whilst being unemployed.

- ***Sub-ordinate theme: Coping***

Unhealthy coping was adopted by participants whom experienced a negative redundancy. In these cases, anger from job loss, subsided to show the struggles associated with unemployment and subsequent maladaptive coping to get by:

'…but within a couple of weeks, [pause], um, yeah basically, [pause], I was redundant for a year after and um, I got to the point where I wasn't getting off the sofa to go to bed; I was just lying on the sofa all day and all night. Um, I started to drink heavily; I was, [pause], yes, in a real state, a real state.' (Participant 9; lines: 102-108).

This in turn caused a total surrender to the negative stereotypes of an unemployed person, effecting moods, motivation, physical wellbeing and relationships with significant others:

'I had not had any experience of the world of unemployment up until then...I really did not have much knowledge of what was going to happen…I very quickly, unfortunately, let myself go and stopped really trying; became the king of procrastination ah, and then became the king of drinking in the evenings and watching daytime telly during the day whilst my poor wife, at the time, had to go back to work quite quickly after the birth of our first child and was stuck with this great depressed lump…'(Participant 9; lines: 260-273).

The lack of experience in job loss caused a personal interpretation of what this means and how to cope whilst unemployed. Given the above participant's experience was distressing, this negatively skewed their perceptions and caused them to manage unhealthily. During the interview, the participant reflected on their maladaptive coping and concluded their

perceptual apparatus as creating a world of helplessness, coming in contrast to their realities of managing well:

'…so the things I was doing whilst I was unemployed and the way I was feeling were not real, but I had created them, if you know what I mean. I don't have and never have had a drinking problem, but I was drinking every night…I was drinking because I was down and depressed.' (Participant 9; lines: 330-336).

Additionally, unclear comprehension of redundancy and unemployment brought on questions over professional capabilities in future work:

'I was more active. Um, mmm, my brain-wise, I was more active. I used to think quicker, I'm slower…I've started um teaching Portuguese…but um, I was scared, frightened, insecure. I wasn't sure, [pause], I was conveying the right thing to them...I teach on Monday's so I've been thinking the whole week of Monday, it's kind of a problem to me, it's always on my mind. It wouldn't be this way, I would be more confident before, I think I would be more confident. I don't know, maybe.' (Participant 7; lines: 78-91).

Due to lacking in confidence, the participant coped by avoiding the topic of being unemployed:

'*…sometimes if I think oh I'm unemployed, and I think about the future and if I'm unemployed one week, two weeks, I can't deal with it. So, I'd rather not think about it, I just push it aside…so I don't think about it. If I think about it, it's not good. I just get depressed.'* (Participant 7; lines: 134-141).

In addition, the participant found himself over-eating to regain a sense of control, even if this meant at the cost of health:

'You emotionally eat; food fills you in a way. Comfort food, yeah. It was in a way I think. It was a way of doing something as well. I have nothing to do, let me eat, let me go and eat.' (Participant 7: 11; lines: 230-235).

For some participants, unemployment was a time of comparing their jobless status to that of their previous professional grade and how these influenced

health outcomes. During interviews, participants showed clear health awareness and enjoyment from exercise:

'…I used to sleep well when I had been dong classes and yoga is a good way to just relax and switch off and calm your mind and everything and I used to run, that used to be my therapy like to go for a run around the country lanes and I could get rid of all stresses and pressures of the week by going for a run and its sort of therapeutic really but now I don't do any of those sort of things. So, I don't get to switch off…' (Participant 3; lines: 293-298).

This came in contrast with their experience of health during time out of work; coupled with looking after her child:

'…but now, I just don't get time to do much, that sort of exercise, you know, I push the buggy round and I occasionally go for a run but it is like once in a blue moon' (Participant 3; lines: 282-284).

Although time to exercise may have been taken up by motherhood, it is noticeable that the decision to lessen exercise was also influenced by their interpretation of the unemployment status. For the participant motivations to stay healthy was part of professional rather than unemployed identity. In this case, possible knowledge of a job to return to, would have been a motivator to regain better health:

'…I think that I would have felt a lot more pressure to lose the baby weight and to get back to looking good and being professional…' (Participant 3; lines: 285-287).

Participants who showed relative good health, were those whom comprehended adverse psychological and physical health effects of job loss and managed to minimise these:

'I guess I have confirmed I'm resilient, having had so many interviews and rejections. I have learnt also not to take it personally! I know I'm doing ok but just there is a lot of pressure.' (Participant 1; via email; lines: e 24- e 25).

'…one of the dangers of being unemployed or underemployed, is just losing the motivation and sitting at home watching TV and that is just about the worst thing you can do because it's extremely depressing. So, even in my miserable period I always made sure I went out for a walk for at least two hours a day…and in the nice weather I get my bicycle out so I can go cycling.' (Participant 6; lines: 1068-1079).

In some cases, comprehension was delayed which resulted in negative health outcomes. However, once the health detriments of unemployment were at worrying levels, this seemed to activate better comprehension and subsequent better management. In the case of participant 6 physical benefits of exercise were comprehended early with psychological health effects coming to surface later, (see negative coping). Once comprehension of health outcomes was clearer for the participant, an awareness of the inter-relationship of physical and psychological health was apparent:

'Oh, it's enormously important, it really is. It's well known that just being amongst greenery is helpful to people emotionally. But just being amongst real people because you know, if you're living on your own and you're not seeing friends and family very often and you don't get many callers, you know you can get very, very isolated.' (Participant 6; lines: 1080-1088).

Similar delayed reactions can be seen for participant 10 whom at the start of job loss was busy coming to terms with their experiences:

'After being made unemployed I didn't do anything about that, (i.e. health), for probably the best part of a year and part of one of the ways of not spending my life cooped up at home, cabin fever is a good phrase, I got out and joined the local public council gym and that was a good way to get back into that.' (Participant 10; lines: 264-269).

However even with the best intentions the financial constraints of unemployment are not far behind; placing the participant at risk of relapse into unhealthy coping:

'Interestingly though, my membership is up for renewal now and I'm probably going to have to drop it.' (Participant 10; lines: 269-270).

When considering participants, whom had experienced more than one redundancy, coping differences could be seen between the initial job loss and following experiences. In stark contrast to their first redundancy, where participant 9 found themselves coping by adopting risk behaviours, during their second job loss, the participant was now taking control and coping healthily. For the participant, the decision to manage health better was determined by their decision to be a better father:

'…I have a nutritionist who has given me a diet to follow, so that is a huge impact. I have lost about seven stone off that and ah, [pause], the other thing is that by being involved with my kids, I am constantly running around like a nutter, kicking a ball, throwing a Frisbee, practising dance moves of some form or another and making an idiot of myself, so um, [pause]. I am physically more up and about and um, [pause], I spend a lot of time laughing. A huge amount of time laughing and having fun…' (Participant 9; lines: 559-568).

From healthier coping, a positive identity was concluded in overall self and as a father:

'Yes, my health is a lot better; my blood pressure has started to come down, um I had real issues with my blood pressure; I have lost a fair bit of weight…I am a far happier person than I was and I think my children would definitely turn round and say I am a far better parent…I think they would quite happily say they much prefer me now um than the person I was before. I am much calmer and I just take each day as it goes and, and I could not be happier.' (Participant 9; lines: 440-454).

Finally, it merits noting that although participants 6 and 8, showed signs of healthy coping through physical exercise, the psychological impact of job loss was not initially apparent to them. Interviews showed negative psychological health effects were not comprehended nor managed until these were prominent to participants:

'I've always kept myself in reasonable shape, I'm a bit podgy at the minute, but you know I eat decently and do a lot of walking. I make sure of that kind of thing, which is good. In retrospect, emotionally, I clearly went through a period of depression. I didn't recognise it as such at the time, and it wasn't like a long clinical depression, I'd just had enough. I mean blow after blow, you do kind of, yeah you feel depressed, except you might not recognise it as being depression.' (Participant 6; lines: 169-181).

'Physically didn't feel bad or anything like that because I had that almost work life balance, (whilst going through the redundancy process), where you finish work on time, go to the gym, do all those kind of things but mentally, [pause], I was a bit of a mess…' (Participant 8; lines: 153-157).

Such findings are important to consider as coping in these cases are not exclusively healthy. In these cases, by focusing on physical health outcomes, this may be interpreted as avoidance of their psychological needs.

- **Sub-ordinate theme: Support**

➢ **Positive experiences:**

Positive support experiences were aligned with health promotion with participants describing a variety of support resources.

For some participants, emotional wellbeing was maintained by applying professional problem-solving skills. In these cases, participants comprehended the stressors from unemployment as a practical issue which could be managed similarly to workplace tasks:

'…it's almost strengths and weaknesses-type analysis, that you find the good points and build on that, and also try and negate the effects of the negative side, so that people don't inadvertently say something or do something that can be detrimental to them.' (Participant 4; lines: 365-369).

'I just threw myself into action…I set up the laptop in there in the other room and I just went: Right, I am going to find another job…I am a doer, so I needed to just mobilise myself into action.' (Participant 2; lines: 83-85 & 88-89).

When referring to external resources, participants accounted for family and friends as support. For example, seeing loved ones go to work maintained confidence and motivation to reach similar employability.

'…my partner at the time, was a great help, just seeing them all, especially the person I was with at the time, seeing him go to work every day. Do you know, that motivates you…' (Participant 8; lines: 349-355).

In these cases, participants did not feel resentment from others employability but used this as a resource to regain their own professional status. This allowed for reflection and affirmation of what it means to them being at work at that life time point:

'You are in that right frame of mind, I know being older I guess, you are not 21 and you just think I'll meet my friends who are 21 down the pub, and chill out and watch films and do all that kind of stuff. You know that everyone else is at work and that motivates you... You are on your own, you are doing nothing, everyone else is working so, yes, that really did motivate me.' (Participant 8; lines: 357-366).

Given the positions participants held, most had left with work related contacts. Participants whom comprehended contacts as a useful resource showed better stress management than those whom saw contacting business peers as shameful:

'I wasn't embarrassed to say hey guys, I haven't got a job, like I probably was the first time, this time, I phoned people up and said hey guys, I haven't got

a job, now look I helped you hundreds of times in the past, time for you to pay it forward. I want something out of you and I wasn't ashamed of that and did not have a problem. Actually, I have not met a single person yet, since doing this, who hasn't turned around and said, yes of course, not a problem buddy.' (Participant 9; lines: 483-493).

The above participant explained the willingness from others to help because of their unemployment status. As such, the identity of unemployed did not hinder their understanding in the importance of support during stressful times and therefore saw external help from business contacts to overcome joblessness. Finally, their acceptance of support was increased by their understanding of the unemployed identity in today's economically unstable society. Where before, professional unemployment was less, now it is more common and therefore accepted in the professional world, thus minimising stigma:

'I think people realise that this happens and it could happen to them…' (Participant 9; lines: 507-508).

- **The non-recognition in asking for support:**

Although this sub-theme was not apparent at the start of the analysis, it became pattern that for some participants there may have been a non-recognition in asking for support during their time in unemployment.

For example, in the case of participant 6, there was a recognition in the importance of asking for support, but not until later in unemployment. Such delays were viewed as a personality trait from childhood:

'*…Over Easter, I saw, my mum was like, "oh look what I found!" and it was one of my old school reports, and in one of those reports from the 1970's it said, 'X' is really excellent worker, blah, blah, blah, he achieves high scores. However, he never asks for help when he needs it. And that was kind of telling because you know, obviously the first kind of 18 months of being*

unemployed, I didn't really ask for help. Had I asked for help I might have avoided the whole lot.' (Participant 6; lines: 823-835).

When referring to participant 5, there seemed to be a non-recognition that they may need help during job loss and instead filled their time by helping others. Although the participant recognised that this was not useful for them, there was a need to feel useful as they did in their professional role and therefore chose to help others by taking on odd-jobs for friends.

'My friends came back from a holiday, not a holiday, working abroad, to find their house has been ruined by tenants…I couldn't say no, I just found there was a kind of serial "yes" mode for this when I just continually help out, not in my best interest, but simply because, [pause]…' (Participant 5; lines; 83-89).

- **Negative experiences:**

With a continuation of participant 6's accounts, the delayed recognition in asking for help partnered with their mistrust in support:

'…you can't really trust other people, which is a sad negative, but it's true.' (Participant 6; lines: 810-812).

Thus, mistrust was intertwined with personal negative experiences from unemployment and general views on government support:

'…once you are sucked into the system you can very quickly become trapped in it emotionally because it doesn't offer, [pause], it doesn't offer anything positive, it offers punishment. It offers poverty and it offers environment which is really depressing and also offers a real mixed bag of (employment) advisors…there's a culture of cynicism amongst the people who need help as well as the people who are helping and I think that travels through to things like the Work Programme.' (Participant 6; lines: 838-845 & 846-850).

However, in contrast to the above, participant 9 tried to comprehend their negative experiences when seeking government support. This would have created better experiences when accessing government support and better health outcomes through minimising the distress of not feeling understood and helped:

'…for a professional and a manager to suddenly find themselves walking into the job centre, it sounds like a terrible thing but I think actually, it is harder for them (i.e. job centre advisors) …' (Participant 9; lines: 460-464).

Even though, they tried to rationalise the difficulties in supporting professionals, it was apparent that the lack of recognising professionals' needs had caused distress:

'I think that people do not, [pause], unless somebody has been, [pause], a senior manager, I do not think people understand, um the impact that unemployment is going to have on them and they do not have the conversation or the resources to um, [pause], yeah, anything really to support them. So, you know, when I went to the job centre, people turned around and said, "Oh okay, what did you do for a job?" and I said I was responsible for multimillion pound contracts um, and other people's lives and whether or not the light bulbs were turned on. "Oh okay, that is fine yeah, can you drive a 7.5 tonne lorry?" Well, no I have never done that before, so there is a sort of a set script for the mass unemployed.' (Participant 9; page 41; lines: 527-541).

Equally participants highlighted pre-assumptions that others viewed professionals as not requiring support during such stressful times:

'I've been able to communicate my needs, not initially, initially I wasn't able to and they, (i.e. job centre advisors), didn't have the skills to bring out of me. So, they just saw somebody middle class, well skilled, shouldn't have a problem. Not recognising that actually it was at the end of a period of problems and I could probably have done with a bit more specialist helps just

to draw that out of me. So, they didn't recognise it…' (Participant 6; lines: 856-865).

The above negative experiences, caused participants to conclude there was no support from the necessary establishments. This fuelled a sense of helplessness attached whilst unemployed:

'…look don't treat us like scum, we are not. We didn't choose to be here. But know that it is not the purpose of the job centre to be a kind of emotional sump, [pause], or support. You are there really to sort of, [pause], you are there to tick a box just to say I am eligible or I am not. But we could do with more of a smile. At least they have got a job'. (Participant 5; lines: 445-451).

Super-ordinate theme 5: Outlook on life (Meaningfulness)

For participants, the experience of redundancy provided opportunities to assess their life's meaning. However, by being pressured to reconfigure life's meaning, some participants saw this period as a *forced opportunity,* where they were placed in uncontrollable situations that requested important life assessments. As such, redundancies were 'cross-roads' situations which participants could determine as an opportunity for the better or affirming a deterioration in both career and overall life.

- **Sub-ordinate theme: The urgency to re-assess life priorities**

For all participants, the swiftness of redundancies had placed them in situations where they had to urgently re-organise their life priorities. This in turn steered how time out of work was managed.

For some, having dependents financially rely upon them, meant the loss of their professional status came secondary to family needs:

'Um (pause) ah, I think I gave myself 48 hours to feel annoyed and sorry for myself and um then I remembered that I had three small people who were

relying upon me to put food on the table and get them to school and look after them and do all this...' (Participant 9; lines: 358-363).

'So, I had to know, I had to find a job that was going to pay enough to cover, [pause] that was going to cover enough for two children, for childcare and my salary. And that's really all I was trying to cover, but it's been so hard.' (Participant 1; lines: 227-229).

For participants without children, the financial implications of unemployment and the urgency to find work was not lost on them; but reasoned from a different yet equally important perspective:

'…you almost think I'll take anything but in your heart, you don't want to take anything. That's one of the fears of thinking I need to have, [pause], I need to have a job. Not necessarily I'll wait for a job that's suitable. Just because of the whole economy, [sigh], in disarray and it was that panic....' (Participant 8; lines: 207-213).

The above passage highlighted worries of financial responsibilities during a time of global austerity. As such, the participant found themselves willing to let go of their professional identity and take on a lower occupational status to cover daily costs.

The re-assessment of priorities during worldwide economic crises was apparent when considering lost opportunities for early retirement:

'I haven't got the financial package in place to actually make it viable to retire at the moment. Some people say well you're nearly 60, you could easily retire. Lots of my cousins did but they were in jobs that had pensions which effectively were index-linked and they retire at 55 on a full pension for the rest of their lives. Which is part of the reason the country's in the mess it's in at the moment.' (Participant 4; lines: 200-205).

- **Sub-ordinate theme: Assessing what is important**

For most participants, the experience of redundancy and joblessness was a time to assess what was important to them. The fear of losing one's professional identity placed them in a surprising opportunity where an assessment of what mattered could be made. As such this initiated the drive to obtain back their professional identity or change career course. In conclusion, unemployment had provided a *paradox freedom* to change for the better.

For example, the experiences gave them an opportunity to review internal resources and see how hardy and resilient they were:

'This is going to sound strange but, [pause], you know I think I've learned a lot about myself, about a lot of things. I've learnt that I can survive, I've learnt that nothing is as horrible as it sounds. Before, I used to think, if I don't get another job I'll be under the bridge. Now, you can always overcome, that I'm strong enough to overcome anything, I have learned that. I think that was a major, major, major thing for me. I was very, [pause], I've got this thing, I've always, [pause], I'm in fear of everything. Everything, is, [pause], and it helped me; overcoming that fear of nothingness.' (Participant 7; lines: 495-508).

For others, redundancy and unemployment had given them the opening to re-assess their professional status and review its importance. In the case of participant 9, the interview showed how occupational status was at lower rankings when compared to the identity of father:

'A change of life you know; it is not about the money. I am not bothered about being a big firm director and all that and have lots of people look up to me. I am not bothered at all. What I am bothered is, as I say, spending time with the kids and I regret that I missed the first six odd years in Child 1's life because I was driven by, by, by a career.' (Participant 9; lines: 422-429).

Similar accounts can be viewed in the following passage showing meaning in caring for elderly parents:

'I know I didn't do wrong by my father in giving him the choice to live as he wanted to, and more to the point making sure that literally I put him back on his feet.' (Participant 5; lines: 392-395).

For other participants losing a post they enjoyed affirmed the importance of work. The loss of work routine, socialisation and lifestyle were motivators to obtain their professional status quo:

'Oh, it's just so important. I love being in work, I love being at work, I love going to work…just getting up in the morning, going somewhere, meeting new people, being with people and not being sat at home, looking, not looking; have a routine. I think having that routine is important and helps the lifestyle that I want. I want to have nice things in my flat, nice friends, go on nice holidays. All that, means a lot to me.' (Participant 8; lines: 431-441).

For others, the loss of a specific role enabled them to review their future career choices and test where else they could apply professional expertise. In the case of participant 2, this meant a movement away from sales and into the welfare to work industry:

'I saw the job, read and believe me, I was job hunting…I thought it sounded interesting and when, I applied for it, I didn't really understand what work it was but once I went through the interview, processed and understood it, I definitely thought…[pause], I could see that I had the skills to do it.' (Participant 2; lines: 120-124).

In addition, losing work through redundancy, had given those participants whom may have not re-assessed life meaning, a chance to start questioning their future for the better:

'I don't know if I want to go back into that role again but I also feel a little bit of pressure, mostly from myself, to go back and do that kind of role again, partly financially and partly just because, [pause]. I don't know, it is a status thing maybe because I was fairly senior position that I had worked towards.

Oh, yes, I do something really important, but actually, [laughs], I am not sure it was that important overall.' (Participant 3; 3354-350).

However, for some participants, meaning during this time was concluded as a negative experience, causing distress. Although comprehension of job loss and manageability of health may have been strong, discussing meaning highlighted overall distress of being unemployed and frustrations from not finding work:

'I can't stand being bone idle, I can't stand now being, [pause], from having a very comfortable lifestyle, yeah, pretty much hand to mouth moment. A great culture shock. But I'm bored with it and I'd rather be in work being productive and useful than in the position I'm in.' (Participant 10; lines: 148-152).

3.3. Summary of key findings

Overall, results showed that all participants interpreted their experiences and health effects from redundancy in a dynamic rather than a static way. This started from the moment news was given of their job loss moving into life after their role termination. Dependent on their comprehension of job loss, this then caused either a negative or health promoting effect during manageability and overall meaning. Each participants SOC components and SOC directions have been captured in the following table (Table B.3.). These shall then be discussed in the discussion by answering the study's initial aims.

Table B.3. Participants' key Sense of Coherence components and SOC direction

*a= first redundancy experience; b= second redundancy experience

Comprehension			Manageability		Meaning		SOC direction in accordance to interview data:
Participant:	**High**	**Low**	**High**	**Low**	**High**	**Low**	
1		Interpreting their job loss as a personal identity loss.		Asking for support was distressing; managing alone.	Nostalgia for professional life; a need to contribute to their family.		Pressure to move up= re-employed.
2	Understanding their job loss as a loss of the specific work post.		Using internal problem-solving skills to organise themselves and find new work.		Seeing themselves as employable.		High and stable= re-employed.
3		Redundancy came during the birth of their child.		Becoming inactive and not eating well.	A need to find their professional identity.		Pressure to move up= contemplating work.

4	Understanding their job loss as an example of the economy.		Exercise, employment support, internal problem solving skills to cope.		Return back to professional life.		High and stable= re-employed.
5		Unable to understand their own job loss.		Avoiding their own problems by helping others.	Seen as a time to change by caring for loved ones.	A time of stagnation when referring to work	Low = Unknown employment status.
6		Redundancy was seen as company mismanagement.		Not recognising psychological distress until this was acute; fear of stigma.		Unable to see unemployment as a time of learning.	Low and stable= casual work.
7		Redundancy was seen as the incompetence of the employer. A total loss of their career path.		Inactivity, comfort eating, isolation and fear of stigma.		Confused of their career loss and future jobs.	Low and stable= casual lower level work.

8	Redundancy was seen as a business process.		Exercise, seeking work and seeing friends and family in work were motivators.		The love of professional life.		High and stable= re-employed.
9*	b. redundancy was disappointing but a process that did not define them.	a. redundancy was a shock and betrayal from the employer.	b. Exercise, better diet, spending more time with family, seeking external employment support.	a. avoidance, drinking, inactivity, isolation.	a. The threat of losing their family. b. The need to be a good father.		a. Pressure to move up= re-employed. b. High and stable= self-employed.
10	Clear understanding of redundancy and accepting their job loss.		Exercise, reliance on internal resources and not seeking external support for job searching and emotional wellbeing			Frustration from not being re-employed. Anger and stagnation.	Rigid tendencies = unknown employment status.

4.Discussion

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4. Discussion

The aim of the study was to explore how professional workers made sense of job loss from redundancies and understand how their interpretations effected health outcomes. Further questions were asked to investigate how some participants stayed relatively healthy whilst others found it hard to cope.

4.1. Summary

A series of qualitative open-ended questions were created and participants interviewed at a singular time-point. Data was analysed using Interpretative Phenomenological Analysis, (IPA; Smith, 1996), thus presenting in-depth sense of participants' understandings of life during and after job loss. Findings were further interpreted by considering Antonovsky's salutogenic framework, (1979; 1987) to highlight health promoting traits.

The study aims were as follows:

- **How does comprehension of redundancy effect self-reported health?**
- **Which perceived psychological factors promote or threaten health during job loss?**
- **Which perceived psychological factors determine a sense of meaning whilst out of work?**

In addition, when considering the new age of career development after the 2008 global crash, the above aims were considered alongside participants' perceptions of today's working life and job security.

U.K. Welfare to Work providers were approached to obtain prospective participants, receiving support via the Work Programme, (Department for Work and Pensions, 2012). During the recruitment phase, there was difficulty in participant up-take, with few professionals showing interest.

Compared to blue-collar workers, less professionals opted for support through the Work Programme, with many still trying to find work independently whilst living off savings. Recruitment was then expanded to include participants through Third Sector organisations offering employment support to professionals not on unemployment benefits. This successfully increased interest and ten prospective participants were identified for interviews.

All participants perceived redundancy as an abrupt change to their professional identity. Depending on how they perceived their resultant identity of unemployed professional, this effected health. Participants whom understood their redundancy as chaotic and confusing showed greater anger, mistrust, sense of betrayal and subsequent shame due to their new unemployed status. Those who interpreted unemployment as circumstantial exhibited less shame and used greater health promoting strategies.

When reviewing participants' interpretations through the sense of coherence formulation, clear comprehension of job loss during the redundancy phase, minimised negative internalisation of loss and reduced overall distress whilst unemployed. Clear comprehension also allowed the minds-set for better psychological and physical health management through both internal and external support resources. Finally, such health promoting factors allowed positive reflection on one's life meaning, by re-evaluating professional working life, life motivations, (e.g. family, career), and overall identity as a person.

4.2. Analysis reflexivity

By using qualitative approaches, one has greater flexibility in gathering data and the opportunity to use participants' first-hand interpretations in findings, (Smith, 1996). It may therefore be assumed qualitative studies should be conducted in the purest form, without the influence of pre-

established theory, (Smith, Flowers and Larkin, 2009). If theory is used rigidly during analysis, this could cause a pigeon-hole effect of results to best-fit theory and minimise the opportunity to uncover new themes outside pre-established paradigms, (Charmaz, 2006).

Although the above indicates a sense of caution when deciding to use theory alongside qualitative work, it does not conclude qualitative analysis assisted by theoretical approaches is not useful. Indeed, new data commonly found through qualitative results can be better presented by using theory. For example, a qualitative study exploring identity change during the transition into motherhood, (Smith, 1999), drew influences from Erikson's Psychological Model of Identity Development and Mead's conception of self, (Erikson, 1980; Mead, 1987), to help frame findings.

In addition, qualitative data can be viewed as further developing theoretical aims and is seen in Antonovsky's own request for more qualitative work using SOC components, (Antonovsky, 1987). As referred to in this study's introduction, Antonovsky discussed the usefulness of qualitative work in showing the dissimilarities between rigid and high sense of coherence. In such cases, interpretative narrative approaches have higher chances of capturing the detail necessary to show subtle differences between high and rigid SOC that may be mistakenly deemed the same when using more general quantitative SOC item scales.

An example of the above is found in the current study where interview data from participant 10 showed signs of rigidness. Although the participant exhibited clear comprehension for their job loss and utilised both internal and external resources during unemployment, (e.g. exercise, applying for work), they struggled to find meaning in their situation. On the contrary, the participant concluded unemployment as a time of sole frustration, stagnation and poverty. This in turn highlighted to them the underutilisation of their expertise during job loss and unwarrantedly lessened motivation to secure work.

Furthermore, Antonovsky requested greater development of the 29 and 13 item SOC scales, (1987) through qualitative work to ensure more variables are captured. This is echoed in Lutz's argument whom concluded that due to the use of westernised masculine language, both 29 and 13 item SOC scales were currently limited in identifying variables that made up SOC, (Lutz, 2009). Lutz highlighted the need for qualitative studies using sense of coherence to identify less masculine variables, (e.g. communication and corporation), that could be later added into SOC item scales.

When considering the study at hand, participant's experiences were identified which showed a strong SOC through less masculine and more nurturing actions. These being:

a) The benefits of placing fatherhood before career progression, (i.e. Participant 9).

b) Developing a nurturing identity as a mother, (Participants 1 and 2).

As such the current study gives a good example of how less masculine variables can create a strong sense of coherence and supports Lutz's, (2009), request for further investigation into such variables and a later review of SOC items scores.

4.2.1. The study's design and analysis diagram

The aim of the study, was to draw out personal interpretations from each participants' view of their redundancy and health coping choices. These would then pin-point which perceptions and actions were health promoting and which lowered health outcomes. As assistance to the progression of salutogenesis, interviews were to be screened for non-masculine concepts representing a strong sense of coherence. Finally, interview data was used to see whether and how sudden job loss can affect SOC stability.

The following guide shows the implementation of this process:

1) Open-ended questions were designed using IPA principles. These were then grouped under sub-headings that reflected the sense of coherence components; i.e. comprehension, management and meaning, (Appendix 2.H.).

2) The sequence used when asking questions was determined by participants' answers, thus keeping to the recommendations of IPA for interview flexibility and participant ownership. It was common for questions to go back and forth along the sense of coherence scale and not follow a SOC linear mode.

3) Data was transcribed and initial analysis was conducted purely through IPA methods. Any influences from salutogenic approaches were noted and bracketed for later use. Bracketing was done by written or verbally recorded reflection notes.

4) Emerging themes were finally identified and noted alongside SOC components.

4.3. Key findings reviewed by answering the study aims

4.3.1. How does comprehension of redundancy effect self-reported health?

For all participants, the issue of professional identity loss and comprehension of the new unemployed identity effected how they experienced life after redundancy and overall health outcomes. Although the super-ordinate theme of 'Professional Identity' was created, it is important to highlight that, identity change was core throughout the study.

The importance of identity can be seen in Smith's account of how often identity becomes a central point in IPA based interviews, (Smith, 1996; Smith, Flowers and Larkin, 2009). Smith explained that during major life changing situations, it is common for participants to link the topic of concern

to their sense of identity. In the case of the current study, the experience of redundancy being associated by participants to their overall professional identity.

- **General comprehension of redundancy**

All participants comprehended business needs when initiating job-cuts, with some referring to these as 'logical sense', (Participant 10; line: 42). When reviewing these views alongside Antonovsky's SOC framework, (1987; 1993), comprehensibility by participants was ordered and clear showing evidences of balanced and stable interpretations.

- **Low comprehension and health**

Although participants had high general comprehension of redundancy, this did not mean that their overall comprehensibility was at similar levels. For some participants, their personal redundancy process was comprehended unclearly causing much confusion and resultant distress, thus contradicting their clearer understandings of general business needs. In these cases, comprehension was deemed low as participants tried to fathom the confusion caused by the reality of their own dispensability. These participants were more likely to view their own job loss as an outcome of chaos and a resultant threat to their professional identity. Participants therefore left their jobs with a sense of anger and confusion which in turn travelled into future actions such as finding new employment.

Such findings support previous work by Mendenhall et al, (2008) whom identified similar strong emotional reactions to redundancies from U.S. professionals. The author concluded professionals were unable to cope well during times of stagnation whilst unemployed, and exhibited signs of anger and mistrust towards future employers.

In addition, when reviewing the relationship of employee and employer through the *Psychological Contract*, redundancy could be viewed by individuals struggling to comprehend their job loss as a violation of commitment to the contract from the employer causing negative emotional reactions from the employee. For these employees, the promise and commitment to the job had been betrayed by the employer, (George, 2009).

This difference in participants' global and personal comprehensions of experiences can be seen to support Antonovsky's notion of significant life events causing a temporary chasm in one's general SOC pattern, (1987). Low scoring participants have both a predictable business understanding of redundancies but simultaneously exhibited unclear comprehensions of their own job loss. As result of this shift, comprehensibility of redundancies had moved from coherent and high to unclear and low, thus impacting on health in a negative way.

This is understandable given interpretations of one's own redundancy will have greater emotional investment than general business understandings of job-cuts. For such participants, it is plausible to view their reactions to job loss as a trauma response, thus signifying the negative impact redundancy can have on professionals. This mirrors previous findings by Fineman, (1982) and Garrett-Peters, (2009), both highlighting the psychological trauma of redundancy and the need to support professionals re-entering work due to possible negative affects following them back into working life.

- **Overseeing staff redundancies and health**

However, it is important to note health outcomes were also influenced by participants' comprehensions of their experiences when managing employees' job loss. Although, the professional was not at risk themselves, they potentially felt psychological distress by playing part in job losses. These findings support previous research into the health effects of managing redundancies. Studies have shown such duties interpreted as 'executioner'

roles where managers are given the difficult tasks of taking away colleagues' livelihoods and instigating the distress that follows job loss, (Wright and Barling 1998).

The current study showed how unclear and unstable comprehensibility of managing employees' job losses increased psychological distress and unhealthy coping. In addition, the experience had directly shaped overall views of redundancies, causing an equally lower comprehension during their own. In such cases, redundancies for both themselves and employees were distressing with little control and feelings of betrayal from employers.

Given increased business needs to minimize head counts, the likelihood of the psychological effects from managing redundancies is high. For example, a recent article from U.S. based Human Resources magazine 'Workforce', (Marquez, June 2009), reported increased detriments to health from managing regular job losses. The author highlighted that human resource staffs would find themselves overseeing colleagues' job losses on a frequent basis and a deterioration of their health if left unsupported. The article concluded a need to invest in health promotion strategies for staff involved in redundancy management.

- **High comprehension and health**

Participants portraying better comprehensibility, were individuals whom saw their own redundancy independent of their professional identity and purely a business need from their employer to reduce head-count. When referring to perceptions from a salutogenic approach, understandings of the reasons behind job loss were more objective, and with little confusion during the process. In addition, data showed that participants with higher comprehension explained their redundancy as predictable and saw the experience as a representation of the increase in job loss given todays' economic instabilities. Participants were therefore flexible in their views of

job loss, which shielded them from negative internalisations and kept distress to manageable levels.

The findings indicate that high comprehension traits are a precursor to better health management during unemployment. These findings, mirror the personal trait resilience, where the use of objective and problem-solving coping can shield individuals from adverse situations, (Garmezy, 1990). For example, studies by Moorhouse and Caltabiano, (2007) and Sojo and Guanno, (2011), concluded participants measuring high resilience adapted better to unemployment through objective coping, whereas participants with low resilience opted for avoidance coping, indicating risks of depression. It is important to note that in the case of Sojo and Guanno, (2011), the use of emotional coping by high resilient participants was not associated with higher risks of depression but only linked to emotional coping adopted by lower resilient individuals. In these cases, resilience created a protective factor during the use of emotional coping.

Finally, the studies showed that although length of unemployment was positively associated with risks of depression, in both referred studies resilience had created a buffer against risks of depression. Both studies, concluded the need to incorporate resilient training during unemployment support interventions with the aim of increasing re-employment and reducing risks of psychological diagnoses.

Akin to resilient individuals, participants from the study whom comprehended their job loss better would still use emotional coping through anger but in comparison to those with lower comprehensibility could reduce anger by understanding the business objectivity of job loss as not a personal loss. In these cases, better comprehensibility during the redundancy process had meant participants left their jobs with a stable view of their professional identity and less angry of their circumstance. Participants with high comprehensibility were more confident in their professional identity, adapted to unemployment and adopted healthier coping. This in turn, enabled participants to control feelings of betrayal and feel comfortable in

approaching prospective employers. Such findings, contribute to Joseph's (1999), request for further investigations into anger reducing factors necessary for unemployed professionals to stay healthy.

- **Comprehension and shame**

Findings showed that all participants worried about how they would be perceived by society once out of work. For participants, the shame of being seen as lazy and a benefits scrounger, had caused adverse psychological outcomes such as isolation and mistrust in society, (e.g. Participants 1 and 7).

The negative outcomes from unemployment and shame can be seen in previous qualitative research. A study by Vickers and Parris, (2007), highlighted participants whom had interpreted redundancies as a shameful experience, were fearful of stigma whilst unemployed. Thus, these participants coped through social isolation; increasing chances of depression. The study concluded, individuals whom experience work-related redundancies may not be as resilient as anticipated with the need to review psychological based support. Similarly, when considering SOC and shame, Starrin, Jonsson and Rantakeisu, (2001), investigated the relationship between forms of hardship, shame and SOC during unemployment. With regards to shame, participants showed lower comprehension of job loss had interpreted their new identity as degrading and contemptuous.

During the study, participants with lower comprehension of job loss interpreted greater worries of their portrayal in society, manifesting into feelings of shame once unemployed. This created a reality where threat to oneself was no longer exclusive to the professional identity. Instead dispensability had evolved and encapsulated one's overall self, with participants seeing themselves no longer needed by the workplace as people and not just workers, (Participant 1). This intense personalisation of

redundancy had caused shame, resulting in participants becoming fearful of disclosing their new identity.

The above findings echo previous studies into the effects of redundancies on self-image. A study by Rees and Garnsey, (2003), had shown job loss through redundancies can negatively influence one's sense of identity and self-efficacy. Qualities such as occupational success and professional self-reliance, may now be perceived by unemployed workers as flawed. As such, individuals may see themselves as failures when it comes to responsibilities both in the workplace, (e.g. poor work performer) and at home, (e.g. failed bread-winner). This sense of failure especially for successful workers, could in turn cause shame and isolation; resulting in purposeful hiding of the reality from important sources of support such as friends and family, (McCarthy and Holliday, 2004).

Summary

In summary, all participants comprehended clearly the business needs for job cuts and understood within this context why employers had to make their roles redundant. From a salutogenic perspective, comprehension was ordered and balanced, which in turn should create the platform for better health manageability during unemployment.

However, when considering the comprehension of participant's own job loss, comprehension differed with some participants exhibiting unclear and confused understandings of their redundancy. In these cases, participants understood their job loss as a threat to their general professional identity. This in turn, caused psychological distress, anger towards their employer, shame of their new unemployed identity and mistrust of future employers; resulting in adverse health-related coping.

Similarly, if the comprehension from managing other employees' redundancies was unclear, psychological distress was apparent. Although

the participant, was not being made redundant per se, the agglomeration of being responsible for employees' job losses, being unprepared for the process and witnessing others distress had created a health hindering environment.

On the contrary, participants whom explained a clearer understanding of their own job loss, comprehended their redundancy as a non-representation of their overall professional identity. Although the redundancy and time in unemployment was still viewed as distressing, feelings of shame, anger and mistrust did not hinder health-related coping thus keeping their health relatively intact.

4.3.2. Which perceived psychological factors may contribute to good or poor health during job loss?

Similar to comprehension, health manageability was dependent on whether participants were influenced by psychological distress, anger and shame; and which identity was adopted once unemployed. This in turn determined how participants chose to manage both physical and psychological health.

- **Low manageability and health**

Findings from the study suggested participants with low comprehension exhibited lower manageability. Thus, participants' psychological distress, anger, mistrust and shame from being out of work had manifested into victimization from feeling unable to cope with job loss and unemployment. This supports Antonovsky's suggestion of individuals whom perceive the situation as chaotic and unpredictable, (i.e. low comprehension), will usually show lower manageability. In these cases, individuals will conclude their resources available to them are not enough to manage and stay healthy

during such adverse times, (1979; 1987). When considering the study, examples were:

'I panic sometimes, panic attacks sometimes, like you are not going anywhere…like you are not capable of doing anything for yourself' (Participant 7; lines: 142; 144-145).

'…it kinds of puts you in the victim's place…' (Participant 7; lines: 325).

Furthermore, the study presents a new extension to this viewpoint by indicating for some participants with low manageability, choosing maladaptive coping may be done with a level of awareness and not subconsciously. The individual is therefore not totally helpless but may have chosen to take the role of victim to manage the distress from job loss. It is therefore important to consider what drives previously confident professionals to choose to manage unhealthily?

One possibility may be that participants whom resigned to shame and negative stereotypes of being unemployed had dedicated themselves to their new 'job role' of unemployed worker. It may be argued their commitment and dedication in working roles had meant an application of these qualities during job loss and fulfilling the negative social stereotypes that follow unemployment. If viewed from a salutogenic perspective, participants were trying to regain a sense of stability albeit in an unhealthy way.

The above findings were viewed in participant 9 first redundancy experience whom as a sales manager of a multimillion international contract, became '*the king of procrastination… and the king of drinking in the evenings and watching daytime telly during the day…' (Participant 9; lines: 260-271).* As such, professional capabilities of being the best whilst in work, were mirrored in unemployment by becoming *the* 'king' of maladaptive coping.

The study also highlighted participants with low manageability levels were more likely to focus on physical health needs through exercise and healthy

eating. For these participants' health concerns during unemployment was condensed to weight gain and inactivity. Although these concerns are valid, the psychological detriments were unrealised until these reached worrying levels. In these cases, participants did not cope with psychological concerns until reaching unhealthy levels such as signs of depression, severe panic attacks and even thoughts of suicide, (Participants 5, 6 and 7).

It is important to note that by coping through physical exercise and healthier eating, these participants were not seen as having no manageability at all. Over the years, research has shown the benefits of exercise and healthy eating on both physical and psychological health outcomes, such as reducing the threats of cardiovascular diseases (Grisolia, Longo, Boer, Hutchinson and Kee 2013), type 2 diabetes (Taylor, Fletcher, Mathis and Cade, 2014), increased self-esteem and reducing chances of depression (Schuring, Burdof, Voorham, Weduwe and Mackenbach, 2009). However, in the case of the study, the delayed awareness of psychological health needs had meant lower manageability outcomes, given psychological stressors were not managed until reaching detrimental levels to overall health.

For such participants, acknowledging psychological stressors was viewed as a sign of weakness; an opposite to the identity of professional. Research has shown for employers struggling in the workplace, the fear of disclosing mental health concerns is resonant, causing long-term sick leave from psychological diagnoses, (Mohammed-Collins and Harris, 2015). Therefore, such fears may not only continue during unemployment but be heightened, causing acute detriments to psychological health.

- **Low manageability and seeking support**

Participants exhibiting low manageability were more likely to avoid external support resources beyond their internal capabilities. In these cases, participants did not see the need to ask for help nor fathom they were entitled to help during hardships. Given their professional identity

showcased to those around them their determination, control and mastery; being the opposite to this, in other words helpless and unemployed, would have been a foreign experience.

In these cases, participants placed a higher reliance on internal resources causing themselves to reach over-capacity when coping. When viewing findings from a salutogenic approach, over-reliance on internal resources had caused stress overload and consequential lower manageability, (Antonovsky, 1987). Resulting from overload, participants exhibited greater distress and adverse health reactions, (e.g. panic attacks, comfort eating, isolation, lower moods and irritability).

When viewing participants' interpretations of external support, individuals with low manageability focused on negative associations with government-led support such as Job Centre Plus centres, (JCP). In these cases, participants had felt victimized and punished by JCP staff. Adverse relationships with establishments that are aimed to support had caused further psychological isolation from participants and increased the over-reliance on already exhausted internal resources.

- **High manageability and health**

Participants with relative good health, were those whom comprehended the possible health threats of unemployment and tried to minimize these. Clear comprehension of their job loss had meant better comprehension of their new unemployed situation and therefore better control in staying healthy and finding work. In such cases, participants helped stay healthy through physical activity, (Participants 4, 9 and 10), better eating, (e.g. Participant 9), and stress management during specific work-related situations such as job applications and interviews, (Participants 3 and 4).

However, it is important to note that the forced abruptness of redundancy may have delayed even for participants with higher comprehension of the

process, the signs of adverse effects of health whilst being made redundant. For these participants' health consequences were not aware to them until out of work.

For these participants, the effects of redundancy and subsequent unemployment, had caused an initial trauma reaction which in turn delayed health management responses. This supports previous findings on trauma response and unemployment, (Fineman, 1982). However, for participants with high manageability levels, there seems to be a time-point where individuals acknowledge the need to manage health and seek out necessary internal and external resources. In other words, what were the motivations to manage health better? These queries shall be considered when reviewing data on meaning.

- **High manageability and seeking support.**

Higher manageability was associated with participants making use of external and internal resources. Regarding internal resources, participants had applied their professional problem-solving skills to organise their daily lives, maintain exercise and successfully job search (Participants 3 and 4).

Such as the above results, research by Abebe and Welbourne, (2015), have shown problem-focused coping during unemployment predicted better health outcomes than emotional coping. In addition, the study highlighted individuals whom showed such traits were more likely to seek re-employment through entrepreneurial self-employment routes. This secondary finding is also mirrored in the current study with participants high in manageability such as participant 9 establishing their own business.

Equally a problem-focused approach was taken when accessing external support, (e.g. local job centres and business peers). If internal resources were not enough to minimize stressors, external resources were accepted.

By viewing external support as a necessity to overcome unemployment, the motivation to access such support exceeded feelings of shame.

Summary

To summarise, psychological and physical health status during job loss was contributed to participants' comprehension of their own redundancy which in turn effected health management during unemployment; for either the better or for the worse. The ambiguity and confusion from low comprehension of job loss followed into health manageability by creating the position of victim, with participants viewing their coping resources too depleted to manage their health during this time. This brought on panic, unhealthy eating, alcohol misuse and social isolation. When considering social support, participants' feelings of shame hindered them in asking for assistance from friends, family and welfare to work services. Instead, participants, found themselves relying on an already exhausted internal coping resource.

However, it is important to note that although professionals showing low comprehension of their job loss were more likely to manage health maladaptively, participants did acknowledge the importance of sustaining good health with some focusing on physical exercise. Although these can be viewed as health promoting actions, it is important to consider in the case of the referred participants, focus on physical health had caused a delay in managing their psychological health. Physical health management may also be viewed as a type of avoidance coping by delaying the review of psychological health until reaching distressing levels.

When considering participants showing signs of higher comprehension of their job loss, a clearer understanding of their redundancy and conclusions of a non-representation of their overall professional identity seemed to assist in adopting health promoting actions during unemployment. In these

cases, participants understood the health threats from being unemployed and the necessity in continuing health promoting behaviours such as exercise and healthy eating. Unlike participants with low comprehension, participants showing ordered understandings of their own job loss were more likely to disallow feelings of shame to overtake and comfortable enough to seek support. Finally, such participants disseminated their health and re-employment management into problem-solving situations with clearer focus on how to rectify their circumstances.

4.3.3. Which psychological factors determine a sense of meaning whilst out of work?

Redundancies can provide opportunities to assess life meaning and make major changes if necessary. However, given both the abruptness and forced change, this period can be referred to as a *cross-roads* situation. Professionals could either be progressive moving healthily away from unemployed life, or stagnated in an identity without purpose. Interview data therefore considered professionals' perceptions determining fulfilment or little meaning during unemployment.

- **The urgency to re-assess meaning after redundancy**

If viewed from a salutogenic approach, the urgency to re-assess life after redundancy can be a secondary phase of comprehension following the initial assessment of job loss. It may even be hopeful to presume that individuals with initial low comprehension of their job loss could then have the chance to stop and reflect on what this all means, and by doing so, re-affirm a clearer understanding of their loss thus reducing the chances of weaker manageability and poorer health outcomes. Although such an assumption goes against the stability of sense of coherence, Antonovsky himself

highlighted a need to explore the query set by Fagin, (1985), when investigating illness consequences of unemployment:

'…unemployment may be a useful turning point for few individuals', (Fagin, 1985:36; cited from Antonovsky, 1987: 146).

Results from the study, did show shifts with participants previously low in comprehension and manageability, showing higher levels of meaning during unemployment, (participants 1, 3 and 5). In these cases, participants' life goals, such as the need to be a good parent, (participant 1) or start to search for their professional identity, (participant 3), had superseded the distress of unemployment and caused pressure to move up the health ease dis-ease spectrum, (Antonovsky, 1987).

- **Life meaning, health and unemployment**

Meaningfulness was the motivational component during redundancy and unemployment. The forced and uncontrollable experience of redundancy had created an opportunity to stop from busy working life and gain insight into what was important. Losing work through redundancy was therefore a time to review and re-assess life priorities. Examples were an affirmation of one's resilience, (e.g. Participant 1), the importance of working life, (e.g. Participants 3 and 8) or the need to 'demote' oneself professionally and focus on parenthood, (e.g. Participant 9).

Such findings coincide with Antonovsky's descriptions of meaningfulness, whom defined it as the motivational element of SOC formulation, (1987). For Antonovsky, meaningfulness allowed individuals to cognitively and emotionally understand their experiences. People with high meaningfulness would see a situation as important to them, that they would care about and gain great sense and meaning. Situations providing meaning, would not only be exclusive to fortunate events but unfortunate challenges in which

commitment to manage and overcome adversities, enabled learning and building hardiness.

The above findings are also encapsulated by Health Psychologist Kirsty McGonigal, in her interpretations of the link between stress and meaningful living, (2015). Within their book, 'The upside of stress.' (2015), McGonigal highlighted situations with acute levels of stress not distressful if meaning is found during the experience. Furthermore, McGonigal saw high levels of stress as '…an inevitable consequence of engaging roles and pursuing goals that feed purpose.' (2015: 65). When referring to participants from the current study, those showing high levels of meaning had awakened necessary stress responses such as soul searching and reflection. As such, the stressful situation of sudden job loss had been interpreted by them as a moment of personal development.

Results showed high meaning was not exclusive to participants with previous high comprehensibility and manageability but also included those whom had previously low comprehension and health management. For these participants, life meaning had eventually risen above psychological distress and poorer health outcomes, thus providing a chance to reflect and change for the better. In accordance to Antonovsky, such individuals' life meaning was important enough to place *pressure to move up*, (1987: 20), and manage health better. This can be viewed in participant 1 interview whom although showed low comprehension during the redundancy process and struggled with health-related coping, found meaning and purpose in motherhood.

However, the study did show that although some participants felt pressure to move out of unemployment and cope better, there were risks of psychological distress from an inability to de-personalise themselves from the redundancy experience. Such participants, struggled adapting to the situation at hand and saw unemployment as a threat to whom they were. For example, although participant 5 opted to find meaning in caring for loved

ones, they deflected from the problem of job loss through focusing on others. This in turn increased confusion in why they were unemployed which manifested into bitterness towards those in work.

In addition, the study showed meaning during this time was not affirmed by all participants with high comprehension and high manageability. In these cases, unemployment was a time of distress, stagnation and non-progression:

'I can't stand being bone idle, I can't stand now being, [pause], from having a very comfortable lifestyle, yeah, pretty much hand to mouth moment. A great culture shock. But I'm bored with it and I'd rather be in work being productive and useful than in the position I'm in.' (Participant 10; lines: 148-152).

When reviewing participant 10 interview from a salutogenic angle, findings show that SOC was not high and stable but showing rigid tendencies. Although the participant understood the reasons for job loss and activated internal and external support resources, they struggled to find a learning purpose in the experience.

Such findings highlight the importance of qualitative work in identifying rigid SOC. Professionals perceived to have the awareness and resources to cope during adverse times may still struggle. Given we live in a time of increased job insecurity and more frequent job losses, the likelihood of identifying unemployed professionals with rigid SOC is therefore high. This is important to note as such subtleties may signify psychological distress and inabilities to cope with the processes of finding new work. If left without support, this may create longer-term unemployment thus placing professionals at risk of diagnoses such as depression, (Fielden and Davidson, 2001).

Summary

In summary meaningfulness during unemployment was the motivational element in staying healthy and coping with joblessness. The abrupt and forced change set by redundancy, had created circumstances for all participants whereby, life needed to urgently be re-assessed and reflections of what was important were made. In the case of the study, redundancy and subsequent unemployment, created *cross-roads* situations whereby professionals had to choose to progress in life or stagnate in their jobless identity.

Participants with both high comprehension of their job loss and high health-related management were more likely to view their unemployed experience as a chance to reframe what was important to them. For example, although the identity of professional held great weight, these participants invested in other identities such as parenthood or re-calculated the importance of working life. Similarly, participants whom previously had low comprehension of their job loss and exhibited maladaptive health-related coping, used their time out of work to re-assess their life. This enabled them to make progressive choices such as focusing on their children and other significant family members.

However, not all participants with both high comprehension and health-related management could find meaning during unemployed life. In these cases, participants displayed signs of rigidness by concluding joblessness as times of stagnation and little learning. This is important to note as such subtleties can signify signs of psychological distress and struggle to cope with finding new work. If left unsupported, results may be longer-term unemployment and risks of diagnoses such as depression, (Fielden and Davidson, 2001).

4.4. Limitations

Several limitations need to be considered whilst interpreting and using findings from this study. When considering demographic data, participants were predominantly male, (N=7), with fewer females, (N=3), representing the cohort. Additional themes may have been missed from interviewing less female participants. Equally, ethnic diversity was not achieved with eight participants being White British, one participant European White and one participant Mixed Ethnicity.

By focusing recruitment through Welfare to Work providers and Third Sector employment support, this disallowed the opportunity for unemployed professionals coping independently to know of the study. As such, it is difficult to report to which levels professionals' health is effected when external employment support is not accessed. It would therefore have been of value to investigate interpretations from professionals whom predominately relied upon internal resources and lived solely off financial savings. May have these professionals shown more adverse health-related coping or better signs of hardiness?

As there was difficulty in recruiting unemployed professionals for the study, sample criteria were opened to include those whom had experienced more than one redundancy, (N=2). For these participants, their first experience of job loss effected how they comprehended and managed their second redundancy, by providing the necessary knowledge and tools to ensure that they would cope better if redundancy occurred again. This in turn affected the homogeneity of the sample.

By using IPA, interviews were a recollection of participants' journeys through redundancy and unemployment. However only one interview was conducted for each participant and therefore experiences were recollected at a singular time point. Given the impact of length of unemployment on health it is advisable to conduct similar research with follow-up interviews.

Data would then show whether SOC stability could be temporarily affected from unemployment length thus threatening health outcomes.

4.5. Strengths

Mass professional unemployment is still a relatively new area when compared to blue-collar unemployment. The current study's originality has helped contribute to current research by exclusively focusing on unemployed professionals' understandings of life in unemployment. When referring to attrition rates, only 4 eligible participants chose not to take part, thus keeping dropout rates low. This in turn increases trustworthiness in the study and allows for interpretations of findings to assist with future research within the area of health and unemployment for professional workers.

Findings indicated comprehension was not singular but separated into two types. These being the general business understandings for job-cuts and personal experiences of redundancy. Although all participants exhibited clear understandings of their employers needs to make redundancies, it is their personal comprehension of own job losses which influences how they view themselves during unemployment. Findings showed unclear and confused comprehension of their own redundancy process created a catalyst effect on health-related coping strategies being adopted. In these cases, adverse strategies such as social isolation, alcohol misuse and inactivity. As such, clear and concise comprehension of business redundancies made by professionals should not be taken at face value as their own underlying job loss may differ causing subsequent adverse health outcomes and re-employment delays.

The richness of data through Interpretative Phenomenological Analysis, (Smith, 1996), enabled access to professional's journeys through redundancy and unemployment and how perceptions promoted or were of detriment to health outcomes. As such, data content can be used when designing further investigations in this growing area. With the additional

application of salutogenesis, data showed which perceptions provide the necessary tools for unemployed professionals to stay relatively healthy and come out of unemployment generally unscathed. These findings can be applied to assist intervention designs for both blue-collar and professional unemployed whom are coping unhealthily.

Allowing the recruitment of professionals whom had experienced more than one redundancy gave the opportunity to review whether and how redundancies at different time-lines effected SOC. Pre-established awareness of the redundancy process buffered participants from adverse effects of shock associated with sudden job loss. As such, participants could comprehend their current loss as a business process and managed health and future job acquisition through problem-solving techniques, (Participant 4 and 9).

Interviews uncovered professionals' interpretations of voluntary redundancy and how such processes to them were not in their control. Alike to involuntary redundancies, participants did not feel they had influence in the process and indeed felt forced into signing their job loss. This latter action may have exacerbated anger and betrayal felt towards the employer and increased the distress felt during unemployment, (e.g. participant 1). Such results question previously set assumptions of control and stress reduction through voluntary redundancy pathways, (Vickers and Parris, 2007).

Findings showed high sense of coherence was achieved via nurturing ways such as parenthood. This supports Lutz's (2009) proposition of expanding sense of coherence through less masculine variables as found in both 13 and 29-item SOC scales, (Antonovsky, 1987). Finally, by reporting differences between high and rigid sense of coherence through IPA, this supports Antonovsky's views of the importance qualitative analyses can play when detecting subtle differences.

4.6. Future Recommendations

The study itself is admittedly novel in nature. However, the qualitative richness from participants' interviews alongside the use of sense of coherence formulation has surfaced several key findings which are recommended for further research progression in this growing area.

For example, frequent redundancies coupled with difficulties in finding new work swiftly is a new experience for professionals, capturing current vulnerabilities of economic markets. As such, being suddenly displaced and unable to secure work easily is distressing even for the well-educated and successful. Findings have indicated that professionals deeply personalising their job loss, associated the experience as a loss of their overall professional identity and fears of how their new identity would be perceived by society. Job loss perceived in this way was a failure of themselves. Given we now live in a time where redundancies are frequent, it is advisable to further research into the fears of shame amongst unemployed professionals and design interventions that demystify these stressors and enable professionals to feel comfortable in seeking support.

When considering employment support, interventions are still designed using research from predominantly blue-collar findings. U.K. Welfare to Work provision may unknowingly provide a service that does not fully capture the needs of this cohort. Indeed, interview data indicated a gap in their support by perceiving employability staff unable to advise individuals higher up the career ladder. This resulted in some participants portraying the lack of specialised support as another indicator of their unique position as an *unemployed professional*; exacerbating feelings of shame, causing isolation and increasing unemployment length, (Participant 6). It is therefore advisable to conduct research into the confidence of employability staff when supporting professionals and design training interventions to fulfil these areas.

By conducting the study alongside Antonovsky's sense of coherence theory, (1987), results showed professionals able to manage health and re-employability better whilst out of work were individuals whom comprehended their job loss as a business process and not a representation of their overall professional identity. Although even in these cases, the job loss was not warranted, clear understanding of the redundancy process offered a health promoting effect during unemployment and lessened possibilities of mistrust in future employers. It is therefore advisable to research and design interventions supporting professionals from the start of job loss and not once in unemployment. In addition, such data shows the ongoing and necessary need for employers to ensure communication training is provided to human resource or management staff overseeing redundancies.

The research has also showed how voluntary redundancy may not necessarily be 'voluntary', with professionals feeling pressured to agree to job loss, (Participants, 1 and 2). Although in these cases, professionals leave with a financial agreement buffering them from the economic stressors of unemployment, the psychological impacts of anger and betrayal are not only felt but may be greater than when redundancy is out of their hands. It is therefore advisable to provide equal support to such professionals and not assume that they may be managing unemployment better.

Finally, the study has furthered findings into the stressors of managing employees' redundancies. Although data stems from one participant, the richness of the qualitative interview provides an in-depth understanding in how distressing overseeing other employees' redundancies can be. It provides an environment where redundancy management is not only exclusive to handling the practicalities of job loss but supporting employees through the emotional challenges from their job loss, as well as managing their own feelings of guilt from cutting one's work post short. It is therefore vital that the welfare of staff managing redundancies is considered and supported.

4.7. Personal reflexivity

[As this section is the researcher's personal reflection of the study, it has been written in the first person].

The 2008 global economic crash had not only caused a financial change but a societal change in the make-up of unemployed populations. Where before Welfare to Work support was designed to cater for the majority unemployed, these being from blue-collar backgrounds or individuals with long-term health needs, support services were now being referred professionals out of work from redundancies.

Whilst a health specialist on such contracts, I had met many unemployed individuals whom were previously highly successful in their career paths. I was set aback on how the economic crash created so many losses and previously Welfare to Work offices were now an 'accident & emergency' for the occupationally injured, including professionals whom until then were immune to such loss.

Whilst at my post, I supported unemployed professionals in a similar way to blue-collar workers, being through pre-designed workshops and one-to-one sessions. However, it soon became clear that professionals faced stressors that were not so apparent in other unemployed people. For example, professionals were more likely to cancel their attendance at workshops as they felt shameful of being out of work, whilst one-to-one sessions were cut short by some as the realities of joblessness were too traumatic. These feelings were additionally heightened if job loss was through redundancy.

Professionals' reactions to unemployment coupled with findings from my case study via one specific professional 'Jennifer', (see Core Unit 5 Behavioural Change case study), opened my curiosity into what unemployment meant to professional workers and how it affected health. Research into previous studies as well as discussions with colleagues showed gaps in our knowledge on the unemployed professional. Assumptions were

made that professional status would equal higher emotional intelligence and therefore better psychological coping.

Since 2008, I myself have been made redundant twice and at threat of job loss five times, and knew the shock and confusion the situation may cause. Although I had complete understanding of why my employers needed to let me go, the feeling of loss and betrayal threatened to stay close-by. My own experiences and the ambiguity in research and support helped me choose to design and conduct a qualitative study which would help start gathering the stories of those effected and see whether support needed to change in any way.

Initially, my aims were to conduct a qualitative piece aimed at not only unemployed professionals but gain findings from those supporting them; for instance, employability advisors, Welfare to Work managers and health advisors in the field. Through Charmaz constructivist approach in Grounded Theory, (2006), the aims were to acquire necessary data and start building theoretical platforms around professionals and unemployment.

However, reading in the area and supporting unemployed professionals made me decide that I needed to take a step back and focus on individuals' stories themselves. If I stayed with my initial approach, I was worried that a focus on all involved in this experience would have removed the opportunity to see unemployed professionals' raw and exclusive perceptions of life after job loss.

As such, I opted for Interpretative Phenomenological Analysis by Smith, (1996), where findings were solely dependent on the professionals' world view. I had previously used IPA in research and knew that this type of analysis allowed the in-depth level I needed. In addition, being taught by Smith during my Masters training made me feel confident in both my choice and usage of the method. I therefore felt this was the right course of action if I was to answer the questions on how professionals saw their job loss and how perceptions influenced coping.

During recruitment, participant up-take was low and took ten months instead of the planned six. At first, I was worried of this outcome but eventually saw this as a positive. The initial interviews and analyses gave me the chance to review my interview style and see whether emerging themes needed to be investigated in greater detail when interviewing the remainder participants.

When considering interview style, I found myself not prompting much in the initial interviews and therefore losing the opportunity to explore emerging themes such as their perceptions whilst going through the redundancy process at work. I found these participants wanting to *skim over* this area and move into life in unemployment. When listening back to interviews, I found participants uncomfortable in talking about the redundancy process and last days at work. This seemed to have influenced my level of prompting and caused myself a need not to surface their times of distress. Reflecting on this area, I believe my own experiences of the logistical process involved in redundancy had influenced my need to allow participants to avoid the subject.

Because of the above, I read several times guidance, (Smith, Flowers and Larkin; 2009) on the influence of researcher's interpretations during IPA studies and the need to continuously review and bracket any thoughts that may cause an imbalance between participants' phenomenology and researcher's interpretations. I therefore used verbal reflection regularly and bracketed off after each interview personal emotions and perceptions that although related to participants' views would have dominated interpretations thus losing participants perceptions. This enabled me to be more objective during subsequent interviews and giving the courage to prompt further, (e.g. *'what went through your mind during the redundancy process?*'). I found participants surprisingly open and willing to tell their tale which in turn allowed me to see the domino effect of redundancy views and actions moving into views and actions during life after job loss.

When using IPA, the researcher can reveal a wealth of data and therefore many avenues to answer study questions. However, during this study I surfaced a great quantity of findings and was at risk of being lost and unable to answer my initial queries. I therefore made a conscious effort to read several times guidance set by Smith, (1996) and Smith, Flowers and Larkin, (2009), during the study. This enabled me to keep to a systematic analysis process where I could provide findings that shed light on my initial aims and not get confused during the process.

This study has been a challenge in immense enormity. It has tested my analytical skills, lateral thinking, emotional capacity and producing doctoral work under great time constraints. However, it has been worthwhile. As a Trainee Health Psychologist, I feel confident that the study has allowed me to further learn the importance of scientific curiosity and the need for systematic planning, especially when taking on novel research.

In addition, the study had given me the opportunity to use pre-established theory such as the sense of coherence framework, (Antonovsky, 1979; 1987), when interpreting qualitative findings. I found such methods helpful in clearly illustrating how peoples' perceptions can influence coping and health outcomes. In the case of the study how some professionals whilst experiencing the adversity of job loss in recessionary times, can still stay relatively healthy and perceive unemployment as an opportunity to learn about oneself. As a practitioner in the field of work and health, I now know the importance of focusing on health promotion and not only health detriment when working with all unemployed alike.

4.8. Conclusion

This study was designed to explore professional workers' perceptions of life during and after redundancies and how their interpretations effected health outcomes. Given the distress caused by job loss, further questions were asked to investigate how some professionals stayed relatively healthy in such adverse times. Today's post global crash society has created an

environment where professionals, previously safe in long-term employment now face regular experiences of redundancies. This frequency will pose greater distress and increase risks of adverse health conditions.

By using both qualitative and salutogenic approaches, the current study showed how unemployment effected health from the moment news was given of job loss. Although all professionals understood the business needs for job cuts, their internalisation of their own work demise effected how they managed health once they left their job posts. In such cases, professionals whom in their work field were highly objective business people were now battling with not only perceptions of professional identity loss but complete loss of themselves. When considering participants, whose health remained intact, worries of losing their professional identity or the shame from how they would be seen by society was superseded by what was important them. For instance, being a good parent or the swift return to working life.

Although the health effects of unemployment have been widely researched, findings into professionals' health outcomes from job loss is still limited. The 2008 economic crisis had caused a new way of working life where job insecurity is commonplace for all workers. Where in the past, professionals enjoyed long-term and secure employment, this cohort are now finding themselves regularly at risk or out of work for no fault of their own.

The IMF, (2009), concluded if nations are to re-surface economically then investment is needed into the health of professional workers. This cohort not only dedicates themselves to their professional roles but oversees the professional development of others. It is therefore vital further research is initiated into the health effects of not only life after unemployment but the ***journey of job loss*** for professionals starting from the moment news is given of redundancy. Findings from such research would provide the necessary insights into how to support professionals during these stressful times, with the aim of teaching better health management skills and assisting back into successful re-employment.

Appendices

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Appendix 2.A.

Ethics Release Form for Student Research Projects

All students planning to undertake any research activity in the School of Arts and Social Sciences are required to complete this Ethics Release Form and to submit it to their Research Supervisor, **together with their research proposal clearly stating aims and methodology**, prior to commencing their research work. If you are proposing multiple studies within your research project, you are required to submit a separate ethical release form for each study.

This form should be completed in the context of the following information:

- An understanding of ethical considerations is central to planning and conducting research.
- Approval to carry out research by the Department or the Schools does not exempt you from Ethics Committee approval from institutions within which you may be planning to conduct the research, e.g.: Hospitals, NHS Trusts, HM Prisons Service, etc.
- The published ethical guidelines of the British Psychological Society (2004) Guidelines for minimum standards of ethical approval in psychological research (BPS: Leicester) should be referred to when planning your research.
- Students are not permitted to begin their research work until approval has been received and this form has been signed by Research Supervisor and the Department's Ethics Representative.

Section A: To be completed by the student

Please indicate the degree that the proposed research project pertains to:

BSc ☐ M.Phil. ☐ M.Sc. ☐ **D.Psych.** X

Please answer all of the following questions, circling yes or no, where appropriate:

1. Job loss, professional workers and health outcomes: A qualitative study.

2. Name of student researcher (please include contact address and telephone number)
Ms Kika Valentina Partakis

3. Name of research supervisor
Dr Catherine Sykes

4. Is a research proposal appended to this ethics release form?
Yes No

5. Does the research involve the use of human subjects/participants?
Yes No

If yes,

a. Approximately how many are planned to be involved**? Up 20 participants or to the point of content saturation. Participants will be professional unemployed individuals whom have lost their work posts through redundancies.**

b. How will you recruit them?
Participants will be recruited from Welfare to Work companies in the U.K.
Participants will be recruited through posters advertising the research. In addition, through verbal advertising by members of staff from the approached companies.

c. What are your recruitment criteria?
(*Please append your recruitment material/advertisement/flyer)*
Recruitment criteria are:
- **Adult's unemployed due to job loss from redundancy**
- **From skilled work roles, e.g. business consultants, IT consultants, lawyers, engineers, doctors and from management roles, e.g. site manager, team leader, and supervisor.**
- **Adults receiving Job Seekers Allowance who are not deemed as vulnerable adults, i.e. with no long terms history of physical and/or mental chronic conditions nor drugs and alcohol addictions**
- **Participants who do not have a learning difficulty, low grasp of English or problems with mental capacity as identified in the Mental Capacity Act 2005 which may indicate difficulty in comprehending the nature of the study or possible distress that it may cause**

Please find attached the recruitment poster for the research. Members of staff will be informed of the research at team meetings and given a list of points explaining the research and next steps if an individual is interested.

d. Will the research involve the participation of minors (under 18 years of age) or vulnerable adults or those unable to give informed consent?
Yes **No**

d1. If yes, will signed parental/carer consent be obtained? **N/A**
Yes No

d2. If yes, has a CRB check been obtained?
Yes **No**
(*Please append a copy of your CRB check*)

6. What will be required of each subject/participant (e.g. time commitment, task/activity)? *(If psychometric instruments are to be employed, please state who will be supervising their use and their relevant qualification).*
Participants will be interviewed by Kika Partakis and discuss the health impact of unemployment on them and their families (latter

where applicable and optional). Participants will be answering open-ended questions, which will cause them to explain their circumstance in detail.
The time needed for the interview will be approximately 1 & 1/2hours. Kika Partakis will leave 1hour extra time after each interview in the case of the participant running over time and not to feel rushed.

7. Is there any risk of physical or psychological harm to the subjects/participants?

Yes

No

If yes,

a. Please detail the possible harm?

Due to the content of the study, the participant may become upset from discussing how being redundant has impacted on both their health and the health of their families.

b. How can this be justified?

The research is important as it contributes to the few and original studies now solely focusing on the new type of management/ skilled worker unemployed who if not for the credit crunch would have not been in a position where they would have experienced forced job loss form redundancy. The study will help research to see how these individuals make sense of being unemployed and how it has impacted on their health and where applicable their families. If findings show that being unemployed increases health risks such data is vital to Welfare to Work organisations and the Department of Health services. It will allow us to see how we can further support this cohort and make sure people do not choose unhealthy coping ways which will affect their health, their family's health and place pressure on public health resource in a time of economic downturn. If the study finds that certain individuals have positive coping strategies and lead healthier lives, answers can influence future intervention designs when considering how to promote better health in the unemployed and their families.

c. What precautions are you taking to address the risks posed?

All clients will be given a list of support links to contact after interviews if they feel they need support. In addition, participants will be provided contact details for Kika Partakis (researcher) and Dr Catherine Sykes (research Tutor), if they wish to get in touch and comment further on the study.

Kika Partakis will also advise the participant's employment advisors to contact her if they believe their clients (i.e. participants) are showing signs of stress. Kika Partakis will then advise the employment advisors on next steps of support with the use of the support contact list, (e.g. GP, IAPT, third sector agencies)

All participants will be provided with a detailed information sheet, explaining the research and final checklist and consent form to ensure they make an informed decision whether they would like to take part.

Finally, Kika Partakis will also arrange an optional follow up call 3 months after the study to check into the participant's general wellbeing. The participant will tick the appropriate area on the final checklist and consent form to inform Kika Partakis that they would like to be contacted.

8. Will all subjects/participants and/or their parents/carers receive an information sheet describing the aims, procedure and possible risks of the research, as well as providing researcher and supervisor contact details?

Yes

No

(*Please append the information sheet which should be written in terms which are accessible to your subjects/participants and/or their parents/carers)*

9. Will any person's treatment/care be in any way be compromised if they choose not to participate in the research?

Yes

No

10. Will all subjects/participants be required to sign a consent form, stating that they fully understand the purpose, procedure and possible risks of the research?

Yes

No

If no, please justify

If yes, please append the informed consent form which should be written in terms which are accessible to your subjects/participants and/or their parents/carers)

11. What records will you be keeping of your subjects/participants? (e.g. research notes, computer records, tape/video recordings)?

Audio and written records of participant's interviews and demographic check list forms

12. What provision will there be for the safekeeping of these records?
Kika Partakis will keep all audio recordings on a password secure locked laptop, which shall be used for the research. All electronic and hard copies will be kept locked at Kika Partakis private office at the

address provided. Computer files will only be accessible by Kika Partakis and available to Catherine Sykes for supervisory purposes.

13. What will happen to the records at the end of the project?
All written records will be securely destroyed once the research has been conducted.

14. How will you protect the anonymity of the subjects/participants?
Kika Partakis will only know true participant names. Data will be presented with the use numeric codes. Kika Partakis will not ask participants to select a pseudonym themselves due to the possibility of distress being caused from reading the findings if they choose to do so.

15. What provision for post research de-brief or psychological support will be available should subjects/participants require?
- **Participants will be given contact details to Kika Partakis and Catherine Sykes and explained to use if they wish to discuss the study or experiencing any distress due to the study**
- **Participants will be given a list of support links to contact if they experience distress**
- **Kika Partakis will inform prospective participants in both the information sheet prior to the study and verbally before the interview that participants can opt out of the study at any time and request removal and destruction of their data at any time.**
- **Kika Partakis will offer all participants the option of a welfare and wellbeing phone call by the researcher 3 months after the study.**

(*Please append any de-brief information sheets or resource lists detailing possible support options)*

If you have circled an item in **<u>underlined bold</u>** print or wish to provide additional details of the research, please provide further explanation here:

CHECKLIST: the following forms should be appended unless justified otherwise

Research Proposal	□X	
Recruitment Material		□X
Information Sheet	□X	
Consent Form		□X
De-brief Information		□

Section B: Risks to the Researcher

1. Is there any risk of physical or psychological harm to you? **Yes** No
If yes,

a. Please detail possible harm?

Given that qualitative analysis will be used, the researcher is therefore at risk of being emotionally influenced by the participants' stories.

b. How can this be justified?
The study will be an original and much needed piece, as it will allow us to see how the new type of unemployed comprehends, manages and places meaning to their job loss status. It will generate data needed for future investigations, probably theories and interventions.

c. What precautions are to be taken to address the risks posed?
Dr Catherine Sykes (City University) will supervise Kika Partakis. Kika Partakis will also keep a reflexive journal and allocate external readers to review vignettes to supervise the analysis.

Finally, Kika Partakis has previously conducted qualitative research and is aware of the need to have ongoing reflection on both the research and impact on her, thus ensuring professional boundaries.

Section C: To be completed by the research supervisor

(*Please pay particular attention to any suggested research activity involving minors or vulnerable adults. Approval requires a currently valid CRB check to be appended to this form. If in any doubt, please refer to the Research Committee.*)

Please mark the appropriate box below:

Ethical approval granted X
□

Refer to the Department's Research and Ethics Committee
□

Refer to the School's Research and Ethics Committee

☐

Signature -----

---------- Date---18-01-2013

Section D: To be completed by the 2nd Departmental staff member *(Please read this ethics release form fully and pay particular attention to any answers on the form where* ***underlined bold*** *items have been circled and any relevant appendices.)*

I agree with the decision of the research supervisor as indicated above

☐

Signature  ----------

Date –18.01.13---

Research Proposal (Appendix 2.B.)

Project title: Job loss, professional workers and health outcomes:

A qualitative study

Overview

Unemployment in the UK has significantly increased since the start of the global crisis in 2008. Recent figures released from the Office of National Statistics revealed 2.6 million adults out of work with 1.6 million signing onto Job Seekers Allowance predominantly from redundancy loss, many of whom had never experienced job loss before; i.e. *a new type of unemployed,* (Office of National Statistics Papers, 2012). Unemployment is not only a financial strain on the economy but also has adverse effects on individuals' physical and emotional health, quality of life and relationships with family and friends, (Garrett-Peters, 2009).

The negative impact of unemployment has been well documented and researched. Previous papers show positive correlations between length of unemployment and signs of anxiety and depression, (e.g. Brenner 1983; Fielden and Davidson, 2001). Similarly, job loss has shown to threaten an individual's self-concept by removing valued occupational identity, which in turn can create emotional distress, (Garret-Peters, 2009).

Regarding health behaviours, unemployment studies have yielded significant effects of long and short-term unemployment on the use of risk behaviours such as alcohol consumption and smoking and changes in body weight. Both alcohol misuse, (Forcier, 1988) and smoking, (Breslau, Novak and Kesler, 2004) have found to start and or increase during unemployment due to stressful socio-environmental conditions brought

on by loss of vital needs such as financial security, (Jahoda 1972; Virtanen, Vahtera, Kimivaki, Liukkonen, Virtanen and Ferrie, 2005), secure employment status and increase in feelings of job precariousness from accepting temporary work, (Ciairano, Rabaglietti, Roggero and Callari, 2010).

In addition, research has focused on health and unemployment by using Antonovsky's Sense of Coherence (SOC) model (1987), to find how unemployed people, comprehend, manage and give meaning to the stressful situation, in this case being out of work and how this affects their health status. For example, Hanse and Engstrom, (1999) reported that unemployed people made redundant from a factory plant, highlighted ill health and low SOC. Similarly, Starrin, Jonsson and Rantakeisu, (2001), found that unemployed people with higher financial hardships and feelings of shame from being unemployed reported lower SOC and higher signs of ill health. Finally, a study by Ciairano et al., (2010) reported with the use of sense of coherence scale that the educated unemployed reported overall lower SOC in comparison to lesser educated unemployed.

When considering unemployed professionals' comprehension during job loss, a qualitative study by Garret-Peters (2009), concluded unemployed professionals adopting maladaptive coping styles were individuals who were unable to process the reasons behind their individual job loss, (i.e. comprehension). This in turn resulted in such participants finding no meaning during unemployment, further increasing risks of distress and delaying re-employment. Although Garret-Peters did not use SOC as a theoretical framework, it is interesting to see that through qualitative analysis, the researcher gains a greater perspective on the detail behind how health and employment is influenced by the components discussed by Antonovsky.

Study Aim

The aim of the study will be to investigate how unemployed professionals make sense of being made redundant and how the redundancy process and subsequent life after job loss effects health. This will be done by adopting a qualitative approach using semi-structured interview styles. Through the sense of coherence model, further investigations shall be carried out to see how individuals whom stay relatively healthy during such adverse times comprehend, manage and give meaning to the situation at hand.

Proposed Study Analysis

As the study, will aim to investigate and interpret how unemployed professionals make sense of life after a work-related redundancy and how interpretations effected overall health for the better or worse, analysis shall be done through the principles of Interpretative Phenomenological Analysis, (IPA; Smith, 1996). Per Smith, Flowers and Larkin, (2009), IPA enables careful examination of human experience by allowing the researcher to identify and interpret how participants view and conclude lived phenomena. In other words, IPA allows for the recognition of essential qualities that make up someone's lived experience. For the research at hand, IPA seems the best qualitative option as it will help identify participants' interpretations and how their views promoted or detriment health.

These findings will then be used to identify health promoting perceptions and coping styles in participants exhibiting better health management during the redundancy process and life after job loss. This shall be done by identifying interview data that interprets the components from the sense of coherence model, (Antonovsky, 1987). In other words, what makes healthy promoting comprehension, management and life meaning during redundancy and unemployment?

Place of recruitment

Participants will be recruited from UK based Welfare to Work providers whom will be receiving support through the Work Programme, (Depart of Work and Pensions, 2012). Participants will be recruited from employment support offices across London and the Home Counties.

Participants

- **Sample criteria**

The inclusion criteria are as follows:

- Participants will be unemployed professionals whom have lost their jobs through redundancy, which was because of the 2008 global economic crisis. To help determine who falls into the category of professional, the following definition from Fineman, (1983), will been used:

  "…people whose occupations are characteristically professional, administrative, or managerial. People who are likely to be responsible for the supervision and welfare of others and have specific skills and knowledge, often acquired from a lengthy period of education and training…teachers, engineers, managing directors, sales executives, personnel managers, sales managers, bankers and retail supervisors to name a few…" (p: 5).

- All professionals seeking work for a minimum of four weeks, therefore fulfilling criteria necessary to be defined as 'unemployed', (Department of Work and Pensions, 2012).
- Unemployed professionals from 30 years of age*.
- Unemployed professionals living in the UK only.
- Professionals receiving Job Seekers Allowance, (Direct Gov., 2012) unemployment benefits, (JSA), or living off their savings.

- If participants secure work after their redundancy, a minimum of 4 weeks' unemployment is required prior to re-employment. This will allow for the participant to have experienced the minimum length of unemployed life and give an account of their experiences. These participants will also supply data into which cognitions and behaviours enabled them to successfully return to work and therefore stay relatively healthy.

* (With reference to Antonovsky's sense of coherence formulation, (1987), SOC reaches maturity by 30 years of age and provides from this age a stable consensus in how adults perceive and manage stressors. As such, participants showing signs of high SOC should comprehend and manage redundancies healthily and find life lessons, (i.e. meaning), during unemployment.
Participants with low SOC should therefore find redundancies confusing and unclear, managing their health poorly and find little meaning to develop during unemployment).

The exclusion criteria for the proposed study are:

- Professionals whom have been out of work for less than 4 weeks.
- Unemployed professionals whom have lost their jobs due to health*
- Unemployed professionals receiving health related benefits such as Employment Support Allowance, (ESA), (Direct Gov., 2012). **
- Unemployed professionals living outside the UK.

*(It is important to exclude the variable of deteriorating health whilst in work as the participants may be influenced by their health during the redundancy process. This is to eliminate the possibility of 'reverse causality', which elicits that previously low health status during employment caused unemployed, (Salim, 2009). Similarly, whilst out of work, their pre-existing illness can influence health behaviour choices and coping. Such health-related influences will not allow for clear interpretations of the causal health effects from redundancies).

**Given their overall health needs, unemployed professionals receiving ESA are too vulnerable to participate.

Study constraints

Unemployed younger adults (16 to 17 years) will not be included in the study as they are not supported via the Work Programme but allocated to NEET contracts external of my job role.

Study strengths

- By January 2012 alone, the Work Programme has had 564, 850 referrals across the UK with 377,530 referrals from individuals receiving jobseekers allowance (JSA; Work Programme July 2012 reports). I therefore have a large recruitment pool of participants which gives greater changes of homogeneity necessary amongst participants.
- Welfare to Work providers will be able to provide interview rooms, telephone use, and computer use, prints, paid postage, and advertising through their employment advisory staff.
- Welfare to work providers have offered to reimburse travel to and from the interview.
- The style of research mirrors perfectly my daily role which means I will be able to capture much rich data during interviews.
- Finally, I have both extensive practice experience and research experience in conducting IPA based semi-structured interviews.

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Appendix: 2.C.

Information sheet

Project title: Job loss, professional workers and health outcomes: A qualitative study

Dear Participant,

You are invited to take part in a research study. Before you decide to participate it is important for you to understand why the research is being conducted and what it will involve. Please take your time in reading the following information and please discuss it with others if you wish. If there is anything unclear or you require further information to help you in your decision please do not hesitate to contact myself Kika Partakis, (principle researcher), by using the contact details found at the end of the information sheet.

What is the purpose of the study?

The study's aim is to see how professionals perceive their experience of redundancy, life after job loss and how these experiences influence physical and emotional health.

Who is conducting the study?

The study is linked to City University and will be conducted by Kika Partakis under the supervision of Dr Catherine Sykes.

How do I take part?

If you would like to take part, you will be invited to a meeting either at the welfare to work office you attend, (private meeting room), or if you prefer over the phone, (the researcher will call you). During the meeting, you will be asked questions which will help gauge your experiences. This will not be a formal meeting but more conversational. The meeting will usually be between 1-1& ½ hours, with soft breaks where necessary. If you need more time that is fine.

What if I have questions about the study before the meeting?

It is normal to have questions before taking part in any study and these will be gladly answered by Kika Partakis, through the contact details found at the end of this information sheet.

How will the answers be recorded?

The interview will be tape-recorded and some written notes may be taken during the interviews. Tape recordings and note taking allows the researcher to capture your story fully.

Will this be confidential?

We take confidentiality seriously and ensured the study process has adhered to City University ethical guidelines. All participants will remain anonymous throughout the study and in any written reports thereafter. Please note, anonymity will only be broken if you disclose information that shows you are unsafe to yourself and/or others. In these rare cases, you will be supported by Kika Partakis to find the necessary support.

What will happen with my answers after the interview?

All recordings and notes will be tagged with an anonymous identifier that only Kika Partakis can relate back to you. All data will be securely locked and destroyed once the analysis has been completed. Finally, during analysis, your answers shall be analysed by Kika Partakis only with anonymous snippets reviewed by supervisor Dr Catherine Sykes to ensure best practice.

Can I have a copy of the study once it is completed?

You are welcome to have a copy of findings once the study is complete. Please inform your interest to Kika Partakis before interview.

Thank you for your time,

Kika Partakis

(Principle Researcher)

E: [redacted]

M: 07********* **

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Appendix 2.D.

Consent Form (CONFIDENTIAL)

(Please ensure a copy of the consent form is kept by both the participant and principle investigator).

Project title: Job loss, professional workers and health outcomes: A qualitative study

1)I confirm that I have read and understood the information sheet dated for the above study and have had the opportunity to ask questions. ☐

2) I confirm that I have had sufficient time to consider whether or not to be included in the study. ☐

3) I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason and without any consequences. ☐

4) I understand that what I say during the interview is to be recorded by audio tape and in writing. ☐

5) I understand that my identity will remain anonymous throughout the study, and in any academic papers that may be written. All raw data will be destroyed once the study is complete. ☐

6) I agree to take part in the above study. ☐

7) Kika Partakis will be providing a wellbeing phone call 3 months after the interview. Please circle your choice below and provide contact details if you would like to be contacted: YES NO

Participant Identification No:
Name of participant: **Signature:**
Date:

Name of principle researcher: **Signature/Date:**

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Appendix: 2.E.

Contacts for further emotional support and information

Project title: Job loss, professional workers and health outcomes:

A qualitative study

Dear participant,

If you feel that you need further support, please contact any of the following organisations. There contact details and a brief description of each one have been provided to help you decide.

Please do not hesitate to contact principle researcher Kika Partakis if you have any queries at E: [redacted] or M: 07*******

- **SAMARITANS**

Available 24 hours a day to provide confidential emotional support for people experiencing feels of distress, despair or suicidal thoughts.
TELEPHONE: 0845 790 9090
E: JO@SAMARITANS.ORG

- **MIND**

MIND is a national charity which helps people who are going through mental health problems and need advice and support on areas such as managing mental health, social support, housing and health advocacy.
To find your nearest MIND team, please visit WWW.MIND.ORG.UK or
Call on: 0300 123 3393

- **Finding a counsellor**

If you would like to find a counsellor in your area, please visit the British Association for Counselling and Psychotherapy website at WWW.BACP.CO.UK and click 'find a therapist'. The BACP holds a list of registered therapists.

- **Help from your GP**

Your GP will also be able to listen to your concerns and refer you to support services in area. Please visit WWW.NHS.UK where you will be able to gain more information on support through the NHS.

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Appendix 2.F.

Demographic check-list (CONFIDENTIAL)

Dear participant,

This check-list will only be used by Kika Partakis to identify participants' demographic data and will be anonymously used when discussing findings.

<table>
<tr><td colspan="3">Name:</td></tr>
<tr><td>Age:</td><td>Gender:</td><td>Ethnicity (optional):</td></tr>
<tr><td colspan="3">Previous job title:</td></tr>
<tr><td colspan="3">A brief description of your role:</td></tr>
<tr><td colspan="2">Reasons for redundancy:</td><td>Was job loss voluntary or involuntary redundancy:</td></tr>
<tr><td colspan="2">Length of time out of work:</td><td>How are you financing yourself:</td></tr>
<tr><td colspan="3">Do you live with family? YES NO

If YES:

Who do you live with, (e.g. partner only, children, siblings, parents).

Did your wage provide financial support to your household: YES NO</td></tr>
</table>

Appendix 2.G.

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[Poster]

Job Loss, Professional Workers and Health Outcomes: A Qualitative Study

Are you a professional, (e.g. manager, supervisor, university graduate), who has lost their job through redundancy?

Do you receive Job Seekers Allowance and/or live off savings?

Would you like to take part in research looking into how redundancy affects health?

If you answered yes to the above, please speak to your employment advisor or alternatively contact Kika Partakis, (Principle Researcher), directly on:

M:07********* E: [redacted]

Appendix 2.H.

Interview schedule

The start of the interview, ice-breaker questions, placing the interviewee at ease:

1) In your own time tell me a bit about yourself?
2) Tell me a bit about your job?

Questions exploring comprehension of the redundancy process and life after job loss:

3) Can you explain to me the events leading up to the redundancy?
4) What went through your mind whilst this was happening?
5) What did you say to yourself once out of work?
6) How do you make sense of being unemployed? (prompts what is your view of it, how has it affected you)
7) What are your feelings around being unemployed? (angry, sad, relieved)
8) Can you tell me a bit about your health whilst being unemployed?
9) Can you tell be a bit about your well-being whilst being unemployed? (prompts confidence, motivation)
10) Can you explain any differences you have noticed in your health since you've been unemployed?
11) How is life with your partner/family/children? (Check demographic pre-questionnaire to see their status)
12) How is life socially?

Questions exploring health and overall life management during the redundancy process and after job loss:

13) What did you find helpful during this time? (Prompts: JCP, family, own resilience).

14) How have you been managing your physical health? (Prompts: diet, exercise).

15) How have you been managing your psychological health? (Prompts: moods, stress, routine).

16) How have you been managing trying to find work?

17) How have you been managing supporting your household (prompts: finance, partner, family)

Questions exploring life meaning after the redundancy:

18) Was there anything you have learnt during this process which you feel you can apply in your life?

19) If you could sum up how do you believe unemployment had affected your health?

20) If you could sum up and give meaning to this period in your life, what would this sound like? (Prompt: if the participant finds it hard to answer this question re-phrase by saying: '…to sum up, if this was a chapter, what would you call it and why?').

Approximate time of each interview: 1 &1/2 hours

Appendix 2.I.a.

[An example of interpretative reflective notes that followed analysis. Such reflection helped 'bracket' any viewpoints I held of this participant that could merge into the next interview thus disallowing clear interpretation of the next interview].

From Participant 9

- **Total betrayal**

Participant 9 describes the process of making others unemployed and facing a redundancy by the same employer as a shake his confidence. At this point it is unclear whether this is a shake in confidence when referring to his abilities as a young manager or faith in employers. [Note to self: It is advisable to further investigate both these queries whilst it merits that reduced faith in the employer may also cause mistrust for him in all his future employers, thus affecting his relationship with them and any future work performances].

- **The physical and emotional impact of making other employees redundant**

*During the time participant 9 was having to make his teams redundant, his sleep, eating habits and overall stress levels were affected. He describes this period as 'being put through the wars' (line 83). It is interesting to point out that although his employer had fundamental responsibility for deciding and actioning the job cuts, he felt responsible to the point where he might have mistakenly seen the redundancies of his teams as his sole responsibility. This can be seen in his choice of words such as '…during the time when **I was having to let people go**' (lines: 80-81). This is important to highlight as it shows how responsible he felt although the decision to cut head count was completely out of his hands and the choice of his employer. Such feeling of responsibility will inevitably*

play part in his health and would have been a contributing factor to his lack of sleep, deteriorated eating habits and increased stress levels. [Note to self: It is also indicative of how involved professionals are in their duties even during times of managing job losses. Given such commitment it is important for employers to be mindful of their management staffs wellbeing when involved in redundancies whether or not the professional at hand may be at risk].

- **Inabilities to understand and process employees' reactions to the news of their job loss**

Although he clearly understood the business needs for job cuts and his role in breaking the news of job losses to his affected teams, he struggled in processing the personal side of redundancies. In other words, he was unable to comprehend employees' emotional reactions to the news of them being made unemployed. He describes he did not have previous experience in cutting jobs and had never personally experienced redundancies up until then. Even though this will play a part in the limited comprehension on how to handle such situations, unable to relate and process employees' reactions may also be because to him reacting in such a way is 'not professional'. We can see from their statement that even when he receives the news for himself of his loss he feels betrayed but does not state that there was a large emotional reaction nor an argument with the employer. Instead he finished his duty as such of reducing head count and left. As a professional he did his job and made sure he completed it even if he did not agree with the duties at the end.

[Note to self: There is a danger that staying to complete one's duties delays the emotional reaction to loss and exacerbates the grief response. Now a delayed trauma reaction rather healthily going through the process of loss].

Appendix 2.I.b.

[An example of interpretative reflective notes that followed analysis. Such reflection helped 'bracket' any viewpoints I held of this participant that could merge into the next interview thus disallowing clear interpretation of the next interview].

From Participant 6

- **The price of loss**

This has been the third time that I have looked at my notes from this specific interview. I find this one the most sensitive due to the participant sadly losing their partner to cancer not long before their redundancy. He did not only go through the loss of work but the loss of a loved one. As someone who has also lost someone close I was conscious that my views of bereavement did not cloud my abilities to do a good interview but instead be used as a tool of empathy during the interview and assist in interpretations later.

- **Health effects from committing to the attributes of professionalism**

The participant was a manager and as a manager you are responsible for the development and welfare of your staff. This to him may be a level of commitment to professionalism. A burden of professional responsibility. [Note to self: The question is does this burden to look after the welfare of others follow into unemployment? Something to consider when analysing other interviews].

Additionally, does caring for others mean when asking for help for oneself this can be uncomfortable or even not something on his mind? As a mother, I care for my children, partner and household. This means I sometimes do not think to check how I am, delaying asking for help when I am not feeling well. [Note to self: Could this be the case for unemployed

professionals, especially those that managed others? (This specific reflection brought about the sub-ordinate theme: 'The fear from asking for support')].

Appendix 2.I.c.

[An example of interpretative reflective notes that followed analysis. Such reflection helped 'bracket' any viewpoints I held of this participant that could merge into the next interview thus disallowing clear interpretation of the next interview].

From Participant 3

- The importance of identity

For this participant, the interview was about identity. When she went on maternity leave, her identity was clear in her mind. She saw herself as a home-stay mother but for a short period, with the aim of returning to her professional role, i.e. her professional identity that she had worked hard to build over 15 years.

The redundancy brought the above plan to an abrupt end and caused much confusion in not only what was her next career move but whom she was: mother, redundant employee, professional? The participant was already in a highly stressful period with the arrival of her baby. The news of her voluntary redundancy options came at a difficult time as her mind was now focused on starting her role as home-stay mother.

As such, the quick decision to 'volunteer' for redundancy and therefore salvage any finances meant she could quickly close the problem of job loss and focus on being a mother. Redundancy and childbirth are both very stressful times and best separately. Trying to manage both at once would mean much distress.

Now 18 months on, the participant finds herself questioning who she is and trying not to resign to the idea of being an unemployed person. Instead there seems to be an internal battle to 'rise again' and be that professional/mum. [Note to self: When considering sense of coherence, consider the 'pressures to move up' SOC continuum].

Appendix 2.I.

[An example of my personal reflections whilst conducting the research]

- **Finding my confidence to conduct interviews with unemployed professionals**

The research has been a challenging piece. I have worked several years in work and health, helping unemployed people learn health promotion behaviours and reduce any maladaptive coping styles. However, the research evoked past nerves of working with professionals out of work. During earlier years in my work, I found working with unemployed professionals a test of my knowledge and abilities. Understandable people who were referred to me for support wanted to know I knew the job and could help them. At times, I felt 'interviewed' by unemployed professionals when helping them which did effect my confidence.

At the start of research interviews, I found this memory re-surfacing, placing questions on not only my abilities as a practitioner but as a researcher conducting semi-structured interviews. When listening back to the first interview (i.e. participant 5), I could hardly hear prompts from myself. This was also noted by my supervisor whom listened to offer guidance. I purposely delayed the next interview for two weeks and took time out to ask myself why I felt nervous about prompting. What I found was my experience of past professional unemployed clients whom tried to monopolise sessions coupled with my personal experiences of redundancies had meant a personal need to not 'upset' participants. I therefore started to question would prompting upset others and if it did what protocol did I have in place to ensure support?

I decided that I could not envisage the future and prompting could also lead to an opportunity for participants to tell their story and reflect on how far they had come to manage life after job loss. I found such personal reassurance positive when researching the effects of child miscarriage in

would-be fathers. Why would this not be the same? I also felt confident that I had discussed the sensitivity of the study with participants before interview, the importance of anonymity, the right to withdraw at any time and gone through local support network links. Alongside by experience in safeguarding and welfare support, I regained confidence in managing possible upset.

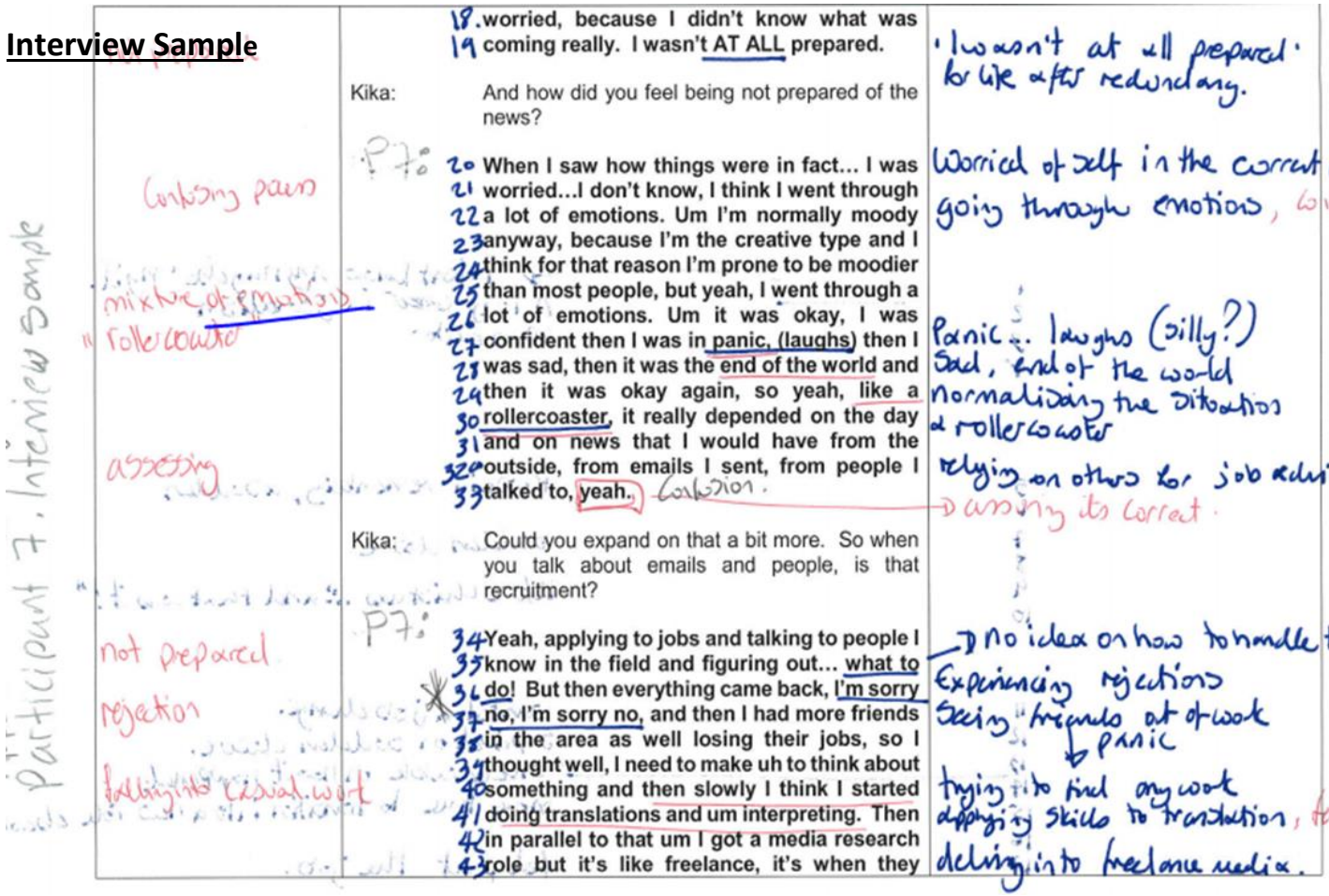
- **Taking so much but not having as much to give**

The interviews were a time of great reflection, where each participant gave moving stories of not only job loss but a threat of losing one's professional self. Losing the chance to prove abilities, show-case expertise and knowledge that had painfully been developed over years. Redundancy was seen by participants as a time of turmoil, with the interviews being a place that could have caused distress. However, I was surprised how at each interview, participants asked me whether their story would help and whether I needed any more information. Even during such distressing times, professionals whom previously oversaw the welfare of employees and businesses, were checking whether their story would help people that did not know.

I could not help feel that I took so much from them and could not give an equal amount back. Reading similar historical research by Fineman, (1983), I found the author commenting similar concerns. Qualitative research for them was a time when the researcher took but could not give back. I perceived myself as a research thief. To help manage this I discussed and explored my perceptions with my supervisor and doctoral peers. During these discussions, I was reminded that these emotionally charged stories were also a rare moment when professionals whom had lost their work out of no fault of their own could tell and reflect on how their side of the story. I was therefore giving people the chance to speak out and help ensure their stories would assist research in this novel area. I hope I have done this paper the justice it need

Appendix 2.J.a.

Interview Sample



worried, because I didn't know what was coming really. I wasn't AT ALL prepared.

Kika: And how did you feel being not prepared of the news?

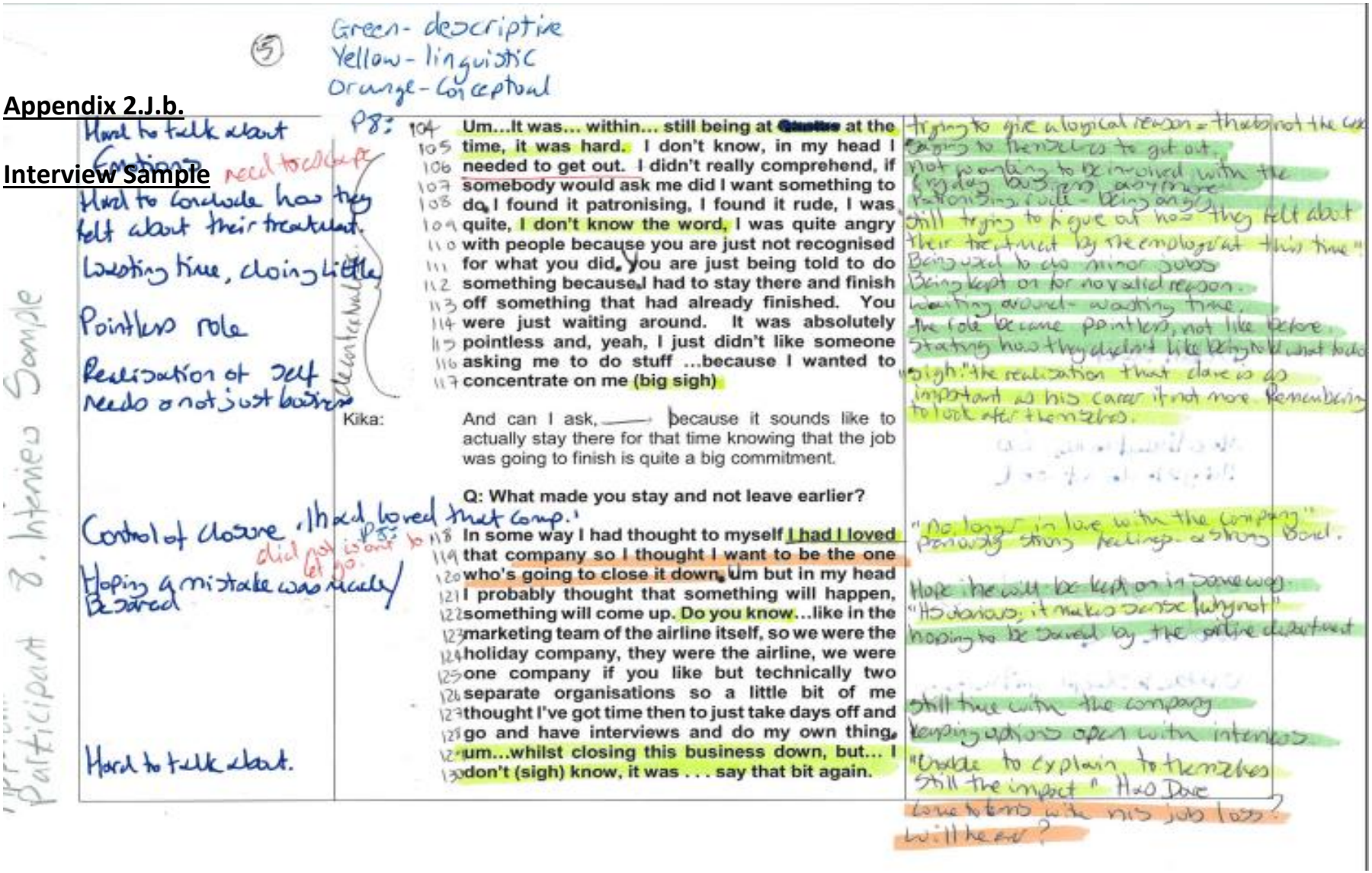
When I saw how things were in fact... I was worried...I don't know, I think I went through a lot of emotions. Um I'm normally moody anyway, because I'm the creative type and I think for that reason I'm prone to be moodier than most people, but yeah, I went through a lot of emotions. Um it was okay, I was confident then I was in panic, (laughs) then I was sad, then it was the end of the world and then it was okay again, so yeah, like a rollercoaster, it really depended on the day and on news that I would have from the outside, from emails I sent, from people I talked to, yeah.

Kika: Could you expand on that a bit more. So when you talk about emails and people, is that recruitment?

Yeah, applying to jobs and talking to people I know in the field and figuring out... what to do! But then everything came back, I'm sorry no, I'm sorry no, and then I had more friends in the area as well losing their jobs, so I thought well, I need to make uh to think about something and then slowly I think I started doing translations and um interpreting. Then in parallel to that um I got a media research role but it's like freelance, it's when they

Appendix 2.J.b.

Interview Sample



Appendix 2.K. Table B.4.

Examples of descriptive and conceptual analyses

Interview text	**Descriptive notes**	**Conceptual notes**
From participant 8, lines 105- 111: "Um…it was...within …still being at the company at the time, it was hard. I don't know, in my head I needed to get out. I didn't really comprehend, if somebody would do I want to do something, I found it patronising, I found it rude, I was quite angry…I was quite angry with people because you are just not recognised for what you did."	Saying to themselves to get out. Being kept on for small jobs, nothing valid. Not wanting to be told what to do. The role became pointless.	Trying to find logic in why they stayed on, realising there was not much logic. Unsure how they felt about their treatment by the employer. Was this support or punishment? The harsh realisation that the company can move on without them. Their role is dispensable.

Appendix 2.L. Table B.5.

Example of linguistic notes

Examples from the interviews	Linguistic interpretations
Participant 8: Lines 116-117, "…because I wanted to concentrate on me… (big sigh)" During this period…did you notice any changes in your health? Line 133, "Um… (long pause) …I didn't sleep well…"	'Sigh': At this point during interview Participant 8 seems to have realised that they as a person are more important than a specific job role. There is a remembrance to look after oneself and not just focus on closing the business. 'Um' and long pause: There seems to be a long pause when answering questions on health. Such pauses were not found when discussing work. It seems that the consequences of job loss to when considering health, is still not at the forefront of the participant's mind.
Participant 7: Lines 282-284, when discussing social isolation: "Yeah, I spent a lot more time at home. A LOT more time at	There is an emphasis of social isolation, showing the impact of unemployment on this upcoming journalist. No longer working but stuck at home, shut away from the working world.

home, (emphasis on the latter statement)." **Participant 9:** Line 83, when discussing the management of employees' redundancies: "I mean, generally put through the wars."	Managing redundancy of others was not only distressing but the distress was compared to war, a battle process where the participant was battling with executing the livelihood of others and staying emotionally balanced during the process.

Appendix 2.M. Table B.6.

Example of using deconstructive analysis

Interview statement from Participant 8 written again but backwards; from lines 346-353.	**Deconstructive notes**
351-353: "But to be honest, I'm aiming, if I can as I told you, just to do freelance, but to have enough to live well…"	Happy with enough to get by, happy to demote wage and change to freelance work.
349-350: "I've got a very good CV and I speak four languages."	Showcasing abilities. Why am I not working?
347-349: "I know this is a bit presumptuous but I think I should have more opportunities."	Not wanting to be a show off. Again, the question arises why isn't he in work?
346-347: "I wonder, why…why is this all the way it is and why some with my skills isn't…"	Redundancy and life after job loss are difficult to comprehend by the participant. Many questions are cropping up when reviewing why this has happened and more importantly why he has not been snapped up by an employer. Maybe this is the reason behind thinking freelance- you cannot trust employers, only yourself.

Appendix 2.N. Table B.7. Colour clustering of sub-ordinate themes

These themes were derived from participant 9 and later reviewed when analysing interviews from participant 7 and 8 where at this stage, sub-ordinate theme names may have changed to reflect findings or dropped if not important.
Subordinate theme derived from grouping similar emerging themes: 'The power of identity on influencing health outcomes' Losing self-identity (P22: 276-279); Unhealthy coping strategies as part of the unemployed persona and not part of the working identity (P25: 318); The fear of betraying the father identity (P25: 415-417); A return to the 'real me' (P26: 336-340); Proud to be a breadwinner (P27: 341-345) A quick return to the healthier working identity (P27: 312-317); 'I AM' (P27:345-348); A contributor to society (P28: 351-358); The professional experienced in redundancies (P15:185-186 & P19: 230-232). Moving to a self-employed identity (P31: 396-400).

Subordinate theme derived from a polarisation process: 'The internal battle between general understandings for the business need and process of redundancies and the personal experiences of redundancy'

A global reality that every worker is at risk of redundancy (P39: 507-511); A logical understanding for businesses to cut roles when required (P5: 40-43);

'Getting wind of forthcoming job cuts (P4: 37-38);

VS

Not seeing the signs of his own job risks (P5: 47-49); Questioning his feeling of security in his role (P10: 114-115); Emersion in his duties as manager during the time of redundancies (P5: 49-52); Voluntary is not 'voluntary' (P14: 174-175); Unable to understand why they were being asked to leave (P24: 296-297; 299) ;

Being made to leave amicably (P15: 178-181); feeling dehumanised by the employer (P17: 207-212); A delayed anger to their redundancy (P9: 96-97); Difficulties in comprehending that the redundancy is not your fault (P16: 193-194).

Subordinate theme derived from similar emerging themes title: 'The stressors from committing to the professional role'

Large work responsibilities (P2: 3-10); Large international work responsibilities (P4: 32-37); Excelling in the professional world (P10: 111-114); Confidence in their own professionalism (P17: 201-203); Living to work (P2: 11-13); Too scared to make a healthy life change and leave the job (P20: 245-247); The sacrifices of the full time professional worker (P33: 418-419). Health sacrifices of the professional worker (P35: 443-445)

Subordinate theme derived from a polarisation process: 'The internal battle between general understandings for the business need and process of redundancies and the personal experiences of redundancy'

A global reality that every worker is at risk of redundancy (P39: 507-511); A logical understanding for businesses to cut roles when required (P5: 40-43);

'Getting wind of forthcoming job cuts (P4: 37-38);

VS

Not seeing the signs of his own job risks (P5: 47-49); Questioning his feeling of security in his role (P10: 114-115); Emersion in his duties as manager during the time of redundancies (P5: 49-52); Voluntary is not 'voluntary' (P14: 174-175); Unable to understand why they were being asked to leave (P24: 296-297; 299) ;

Being made to leave amicably (P15: 178-181); feeling dehumanised by the employer (P17: 207-212); A delayed anger to their redundancy (P9: 96-97); Difficulties in comprehending that the redundancy is not your fault (P16: 193-194).

Subordinate theme derived from similar emerging themes title: 'The stressors from committing to the professional role'

Large work responsibilities (P2: 3-10); Large international work responsibilities (P4: 32-37); Excelling in the professional world (P10: 111-114); Confidence in their own professionalism (P17: 201-203); Living to work (P2: 11-13); Too scared to make a healthy life change and leave the job (P20: 245-247); The sacrifices of the full time professional worker (P33: 418-419). Health sacrifices of the professional worker (P35: 443-445)

Subordinate theme derived from similar emerging themes with an emergent theme becoming the subordinate theme

Title: 'The urgency to re-assess life priorities'

Obligations as a father (P2: 14-16); The urgency to re-assess life priorities (P14: 164-167); No time for self-doubt after the redundancy (P17: 215-217); Forced to prioritise the role of father and family provider (P18: 218-220); A fear of losing his family and a force to correct the situation (P24: 303-308); Forced to snap back into the working world (P25: 309-310); Staying focused to the priorities at hand (P29: 360-362); Accepting any job V's waiting for the ideal job (P26: 323-325).

Subordinate theme deriving from similar emerging themes polarised between the general view and personal experiences.

Title: 'Stigma, shame and unemployment'

General fears= A general awareness of the stigma from being unemployed (P36: 458-459); The walk of shame (P:36: 463-465); The dangers of being too embarrassed to ask for help (P38: 494-497);

Personal experiences= Not ashamed of being out of work (P38: 489-490); Not hiding from peer support (P38: 483-485); Seeking government help (P37: 478-481); No space for shame (P37: 475-476).

Subordinate theme deriving from an agglomeration of similar emerging themes

Title: 'A chance to re-assess life meaning'

A change for the better (P45: 479-482); A life changing situation (P4: 30); A second chance (P46; 591-593); Correcting life mistakes (P14: 170-173); An opportunity to change (P19: 234-237 & 243-244). A chance to re-evaluate what is important in life (P13: 151-154). Re-assessing life meaning (P33: 422-429).
Subordinate theme deriving from and agglomeration of similar emerging themes **Title: 'The health consequences of life after redundancy'** The emotional impact of redundancy (P21: 251-253); inexperienced in the world of unemployment (P21: 260-265); The negative health impact of unemployment (P22: 267-274); Choosing to avoid reality and not cope well (P24: 303-308); little understand from the outside world of the negative health impact of unemployment on professional workers (P41: 529-531); The non-tangible experience of redundancy which brings on negative psychological consequences (P23: 291-295).

Subordinate theme deriving from a polarisation of emerging themes with the subordinate title stemming from an emergent theme

Title: 'The cold reality of being dispensable'

Personal comprehension: Choosing to believe they were safe in their role (P6: 66-67); Part of the employer team (P7: 73-74); Feeling safe but at a price (P6: 58-62)

V's

Reality: Feeling betrayed by their employer (P6: 62-65); Total betrayal (P7: 77-78); Clashes with the employer (P11; 121-134); affirming mistrust in employers (P12: 139-142 & 149-150); The cold reality of being dispensable (P12: 137-138)

Subordinate theme deriving from similar emerging themes

Title: 'The health consequences from making employees redundant'

The impact of taking away peoples jobs (P6: 55-57); The emotional hardship in telling employees they no longer have work (P7: 68-71); The physical and emotional impact from making other redundant (P8: 80-83); The emotional consequences from making others redundant (P8: 93-95); The inabilities to process employees' reactions to the news of their job loss (P8: 83-92)

Subordinate theme deriving from the title of an emerging theme

Title: 'Action orientated coping'

Taking back control from time out of work (P30: 379-386); In control of their own career survival (P34: 437-439); Living in a mindful way (P35: 452-454); action orientated coping (P29: 366-372); the health benefits of returning to work (P26: 326-330)

Appendix 2.O. Figure B.2.

Lists of super-ordinate and corresponding subordinate themes

❖ **Super-ordinate theme 1: Professional Identity (Comprehension)**

Corresponding subordinate themes:

- *The influence of redundancy on professionals' identity loss.*
- *The loss of professional identity and fitness.*
- *The stressors from committing to the professional role.*
- *The shame from being unemployed.*

❖ **Understanding loss (Comprehension)**

Corresponding subordinate themes:

- *The internal battle between general understandings for the business need and process of redundancies and the personal experiences of redundancy*
- *The health consequences from having responsibility in other employees' redundancies*

❖ **Assessment of life after the redundancy (Comprehension)**

Corresponding subordinate themes:

- *Initial life after redundancy*
  - *Negative schemata*
  - *Positive schemata*
  - *Confusion Vs clarity during life in unemployment*

❖ **Managing life after redundancy (Manageability)**

Corresponding subordinate themes:

- Coping

- Support → *Positive experiences*
  - → *The non-recognition in asking for support*
  - → *Negative experiences*

❖ **Outlook on life (Meaningfulness)**

Corresponding subordinate themes:

- The urgency to re-assess life priorities
- Assessing what is important

Appendix[5] 2.P.a. Table B.8. Superordinate Index-Participant 1 (C=comprehension, Mx= management, M=meaning)				
Professional Identity (C) * **<u>Subordinate themes:</u>** ***'The power of identity on influencing health outcomes'*** P12; 309-315 **Linguistic frequency** No reference ***'The stressors from committing to the professional role'*** P1; 2-8 P1; 16-17* P2; 18-21	**Understanding Loss (C)** **<u>Subordinate themes:</u>** ***'Being dispensable'*** • Not wanting to believe: P3; 53-63* P4; 81-85* • Reality: P4; 90-95* P5-6; 123-126 P12; 315-319* ***'The internal battle between a general understanding for the business need and process of redundancies and the***	**Assessment of life after the redundancy (C)** **<u>Subordinate themes:</u>** ***'Life after redundancy'*** Negative schemas: P9; 212-213 P9; 216-241 (e); 15-17 & 22-23 Positive schemas: (e); 18-22 ***'The health consequences from having responsibility in***	**Managing Life after Redundancy (Mx)** **<u>Subordinate themes:</u>** ***'Healthy coping'*** (e); 24-26 ***'Unhealthy coping'*** P13; 325-331 P14; 334-337* P14; 339-340 P14; 341-358* ***'Support'*** • Positive experiences: P13; 332-333 • Negative experiences:	**Outlook on Life (M)** **<u>Subordinate themes:</u>** ***'The urgency to reassess life priorities'*** P10; 225-228 P10; 228-236* P10; 248-253* (e); 1-4 (e); 13-14 ***'Assessing what is important'*** P10; 254-255

[5] As all participants' super-ordinate indexes were created during the initial analyses, sub-ordinate themes may have changed in titles or been dropped to ensure clear data representation during findings.

P2; 22-24 P2; 25-28 P3; 40-42 P6; 141-149* P7; 151-155* P9; 208-211* ***'The stigma from being unemployed'*** • Resigned to the shame: P11; 271-275 P12; 286-287 • Overcoming shame: no reference	***personal experiences of redundancy'*** • General understanding: P4; 85-86 • Personal experiences: P2; 37* P3; 47-49 P4; 64-71* P4; 77-80 P5; 96-98* (Positive management support) P8; 174-178* P9; 205-207****'Confusion'/*** P3; 42-45**/**P3; 49-53/P5; 100-106* P5; 122-123**'/Clarity' /**P5; 121-122	***other employees' redundancies'*** No reference	P11; 271-275 P11-12; 275-299 P12; 300-309 (e); 29-31 • The fear from asking for support: There is a danger that Participant 1 later does not want to ask for further support and isolates herself from not speaking about her unemployment experience, (P14; 341-358), and starts to question her own professional abilities (P12; 309-315).	P11; 256-269*

*Lines identified that were deemed of key significance and in need of further scrutiny

Appendix 2.P.b. Table B.9. **Superordinate Index-Participant 2** (C=comprehension, Mx= management, M=meaning)

Identity (C) *	**Understanding Loss (C)**	**Assessing life(C)**	**Managing Life after Redundancy (Mx)**	**Outlook on Life (M)**
Subordinate themes: ***'The power of identity on influencing health outcomes'*** P12; 162 P12; 163-166* P19; 197-198* **Linguistic frequency** P1; 7 (asking if they are being helpful in their interview) ***'The stressors from committing to the professional role'.***	**Subordinate themes:** ***'Being dispensable'*** • Not wanting to believe: P2; 18 P3; 36-37 P3; 38-40 P4; 63-67* P4; 68-77 P5; 81-82* • Reality: P3; 41-48 P4; 60-61*	**Subordinate themes:** ***'Life after redundancy'*** Negative schemas: P13; 167-170 Positive schemas: P7; 117-119* P7-8; 120-124 ***'The health consequences from having responsibility in other employees' redundancies'*** P2; 28-31	**Subordinate themes:** ***'Healthy coping'*** P5; 83-89 P5; 89-90 P9; 127-130 P10; 131-134 P11; 148-150 ***'Unhealthy coping'*** P14; 171-174*(projecting worries on partner) ***'Support'*** • Positive experiences: P11; 151-152	**Subordinate themes:** ***'The urgency to re-assess life priorities'*** P8; 125-129 P18; 184-185* ***'Assessing what is important'*** P1; 12-15 P6; 103-108* P10; 135-141*

P1; 1-7 P1; 8-11 P2; 15-17 P3; 54-57* P4; 62-63* P16; 175-177 (proving one's worth) ***'The stigma from being unemployed'*** • Resigned to the shame: no reference • Overcoming shame: no reference • Fear of the stigma: P9; 125 'No'	***'The internal battle between a general understanding for the business need and process of redundancies and the personal experiences of redundancy'*** • General understanding: P2; 19-27 P6; 91-99 • Personal experiences: P2; 28/ P2; 31-35 P3; 48-54/ P19-20; 199-202*/***'Confusion'*** P6; 100-103*/**'Clarity'** /no reference		• Negative experiences: P9; 126-127 • The fear from asking for support: No reference	P11; 142-147 P12; 153-161 P17; 178-183 P18; 186-192* P19; 193-196*

*Lines identified that were deemed of key significance and in need of further scrutiny

Appendix 2.P.c. Table B.10. Superordinate Index-Participant 3 (C=comprehension, Mx= management, M=meaning)				
Identity (C) * **<u>Subordinate themes:</u>** ***'The power of identity on influencing health outcomes'*** P8; 156-170* P10; 202-206* P10-11; 216-241* P12; 262-268 P13; 270-276 P13-14; 285-310 P14; 311-315* **Linguistic frequency** No reference ***'The stressors from committing to the professional role'.***	**Understanding Loss (C)** **<u>Subordinate themes:</u>** ***'Being dispensable'*** • Not wanting to believe: no reference • Reality: P4; 79-87* P5; 99-100 P6; 111-126* P11-12; 242-245 ***'The internal battle between a general understanding for the business need and process of redundancies and the personal experiences of redundancy'***	**Assessing Life (C)** **<u>Subordinate themes:</u>** ***'Life after redundancy'*** Negative schemas: P10; 212-216 P12; 246-256* P16-17; 359-362 Positive schemas: P12; 254-261* P17; 365-372* ***'The health consequences from having responsibility in other employees' redundancies'***	**Managing Life after Redundancy (Mx)** **<u>Subordinate themes:</u>** ***'Healthy coping'*** no reference ***'Unhealthy coping'*** P5; 88-95* P5-6; 102-107* P6; 108-110 P15; 321-325 P17; 362-364 ***'Support'*** • Positive experiences: P9; 192-197 P10; 207-211 P10; 212-216* • Negative experiences:	**Outlook on Life (M)** **<u>Subordinate themes:</u>** ***'The urgency to re-assess life priorities'*** P4; 67-71 P7; 137-139 P7; 141-142 P16; 345-350* ***'Assessing what is important'*** P7; 129-137 P15; 326-336* P15-16; 336-345* P16; 351-356

P1; 3-8 P1; 9-11 P2; 19-27 P2; 28-30 P2; 38-39* P2-3; 38-41 ***'The stigma from being unemployed'*** • Resigned to the shame: P13-14; 285-310* • Overcoming shame: no reference	• General understanding: P2; 32-35 P4; 72-73 P4; 76-79 P5; 96 • Personal experiences: P2; 36-37 P3; 42-53 P4; 73-75 P5; 96-100* ***'Confusion'/***P3; 54-66*/P7; 142-150*/ P8; 151-155/P16; 357-359/**'Clarity' /**no reference	No reference	P8-9; 171-191 • The fear from asking for support: no reference	

*Lines identified that were deemed of key significance and in need of further scrutiny

Appendix 2.P.d. Table B.11. Superordinate Index-Participant 4 (C=comprehension, Mx= management, M=meaning)

Identity (C) *	**Understanding Loss (C)**	**Assessing life(C)**	**Managing Life after Redundancy (Mx)**	**Subordinate themes:**
Subordinate themes: ***'The power of identity on influencing health outcomes'*** P1; 1-8 P1-2; 19-22 P4; 31-32 P6-7; 57-63 P27; 283-301 P31; 329-349 **Linguistic frequency** None ***'The stressors from committing to the professional role'.*** P1-2; 19-22 P4; 31-32	**Subordinate themes:** ***'Being dispensable'*** • Not wanting to believe: P8-9; 76-89 • Reality: P9; 87-89 ***'The internal battle between a general understanding for the business need and process of redundancies and the personal experiences of redundancy'*** • General understanding:	**Subordinate themes:** ***'Life after redundancy'*** Negative schemas: P9; 92-93 P13; 127-134* P14; 142-148* P25; 259-268 (struggle)* Positive schemas: P9; 90-91 P13; 135-137 P17; 170-171	**Subordinate themes:** ***'Healthy coping'*** P18; 183-187 P21; 218-225 P22; 231-234 P22; 235-237 ***'Unhealthy coping'*** No reference ***'Support'*** • Positive experiences: No reference • Negative experiences: No reference • The fear from asking for support:	**Subordinate themes:** ***'The urgency to re-assess life priorities'*** P19; 198-204* P20; 209-217* P29; 321-328* ***'Assessing what is important'*** Has not changed Liam's outlook: See page 44; final paragraph

P6-7; 57-63 P27; 283-301 P31; 329-349 ***'The stigma from being unemployed'*** • Resigned to the shame: No reference • Overcoming shame: P52; 350-353	P12; 117-126 • Personal experiences: P54; 370-379 P54; 379-381 P55; 382-386 ***'Confusion'*** No reference **'Clarity'** P53; 354-360 P53; 361-365 P53; 366-369	P18; 188-192 P23; 238-245 ***'The health consequences from having responsibility in other employees' redundancies'*** No reference	No reference	

*Lines identified that were deemed of key significance and in need of further scrutiny

Appendix 2.P.e. Table B.12. Superordinate Index Participant-5 (C=comprehension, Mx= management, M=meaning)				
Identity (C)	**Understanding Loss (C)**	**Assessing life(C)**	**Managing Life after Redundancy (Mx)**	**Outlook on Life (M)**
<u>Subordinate themes:</u> ***'The power of identity on influencing health outcomes'*** P3; 18-20 P3; 21-23* P4; 44-48; 50-54; 55-57; 62-66 P5; 87-92; 95-96 P11; 234-235 P12; 16-17 P12; 247-253* P12; 273-275* **Linguistic frequency**	**<u>Subordinate themes:</u>** ***'Being dispensable'*** • Not wanting to believe: P7; 121-125 P11; 221-223* • Reality: P7; 112-115 P7; 121-125* P19; 346-347 ***'The internal battle between a general understanding for the business need and process of redundancies and the personal experiences of redundancy'***	**<u>Subordinate themes:</u>** ***'Life after redundancy'*** Negative schemas: P1; 2-3 P3; 24-27 P3; 29 P4; 33-34 P7; 111-112 P7-8;137-142 P9; 184-192* P10; 202-203* P10-11; 217-227 P17; 299-306	**<u>Subordinate themes:</u>** ***'Healthy coping'*** P4; 35-36 P12; 266-271 P13; 276-278 ***'Unhealthy coping'*** P5; 87-92*(a delusion that this is work?) P9; 172-184 (see life after redundancy p9; 184-192) P9-10; 193-198 P10; 199-202 P11; 233-235 P12; 244-247 P13; 286-294*	**<u>Subordinate themes:</u>** ***'The urgency to re-assess life priorities'*** P4; 44-48; 50-54; 55-57; 62-66 P7; 134-137 P8-9; 147-169*(focus on line 163) P18; 320-324* P37; 413; 421-422(In conflict with assessing what is

'The stressors from committing to the professional role' P1; 13-14 P2; 16-17 P4; 43 P4; 44-48; 50-54; 55-57; 62-66 P5; 87-92; 95-96 P7; 125-129 P8; 144-147 ***'The stigma from being unemployed'*** • Resigned to the shame: P6; 92-94 P11; 233-235 P38; 423-431	• General understanding: P7; 119-121 P7; 131-133 • Personal experiences: P4; 37-43 P7; 115-119 P7; 133-134 ***'Confusion'*** P7; 121-125* P7; 129	Positive schemas: P3; 27-28 P19; 354-356 ***'The health consequences from having responsibility in other employees' redundancies'*** No reference	P34; 366-373 P34; 374-382 ***'Support'*** • Positive experiences: P5; 77-81 • Negative experiences: P17; 297-298 P17; 310-313 P18; 319-320 P18; 326-333 • The fear from asking for support: No reference *[I do not believe the participant has even thought of asking for help. There is a strong notion that he feels he is on his own during his time out of work and there is no one out there to help him.*	important p37; 406-409) ***'Assessing what is important***P5; 70-73 P8; 144-147 P36; 383-390*P36; 390-395; 397-399* P36; 399-401*

• Overcoming shame: P38; 432-436 P40; 444-451*			*There is an internal conflict that is the participant against the world whilst at the same time protecting his family from the world too.]*	

*Lines identified that were deemed of key significance and in need of further scrutiny

Appendix 2.P.f. Table B.13. Superordinate Index-Participant 6 (C=comprehension, Mx= management, M=meaning)				
Identity (C)	**Understanding Loss (C)**	**Assessing life(C)**	**Managing Life after Redundancy (Mx)**	**Outlook on Life (M)**
Subordinate themes: ***'The power of identity on influencing health outcomes'*** P2-3; 88-102 P5; 185-186 P5; 208-216 P6; 229-231 P6; 231-246 P7; 279-281* P7; 283-289 **Linguistic frequency of referring to oneself as stupid in identity** (refer to P9: 400-405 and P17;	**Subordinate themes:** ***'Being dispensable'*** • Not wanting to believe: P2; 63-67 P15; 642-628* P17; 703-709* • Reality: P3; 121-122 P17; 679-683 P17; 709-713 P18; 715-720 ***'The internal battle between a general understanding for the business need and process of redundancies and the***	**Subordinate themes:** ***'Life after redundancy'*** Negative schemas: P1; 10-29 P3; 127 P4; 134-142* P4; 159-162 P16; 680-684 P20; 776-781 P22; 812-815 P24; 884-890 P25; 906-911*	**Subordinate themes:** ***'Healthy coping'*** P4; 164-173 P6; 258-268 P9; 364-372(this could lead to avoidance coping) P30; 1068-1079* P30; 1080-1088 P30; 1073-1079 P30; 1080-1088 P33; 1185-1193 ***'Unhealthy coping'*** P4-5; 173-181 P5; 182-184 P5; 199-207	**Subordinate themes:** ***'The urgency to re-assess life priorities'*** P8; 336-344 P8; 344-354 P8; 360-363 P9; 387-394 *P30-31; 1095-1100, 1109-1121 & 1122-1125 P32; 1148-1151 ***'Assessing what is important'***

680-682 to help explain why): P5; 188 P5; 215-218 P7; 283 P11; 466 P31; 1130 ***'The stressors from committing to the professional role'*** P2; 73-74* P20; 800-813* ***'The stigma from being unemployed'*** •Resigned to the shame: P5-6;222-228 P13; 541-549 P13; 560-572	***personal experiences of redundancy'*** •General understanding: P1; 6-8 •Personal experiences: P1; 8-10 P2; 49-60 P2; 81-86 P17; 673-676 P17; 677-679* P17; 683-688 P17; 697-702 ***'Confusion'*** P2; 45-49 P2; 86-92* P8; 322-328*	Positive schemas: P3; 103-118 P8; 322-336 P9; 373-387* P12; 519-521 P13; 539-541 P16; 689-699* P22; 810-812 P23; 817-823* ***'The health consequences from having responsibility in other employees' redundancies'*** No reference	P9; 400-405 P30; 1068-1073 ***'Support'*** •Positive experiences: P10; 439-447 P11; 452-453 P11; 468-469* P12; 488-519*(this could lead to avoidance coping) P27; 988-994 P15; 649-657 P28; 1000-1008* P28; 1015-1034 •Negative experiences: P5; 188-198* P24; 838-845 P24; 859-864* P24-25; 871-876*	P1; 30-35* P7; 303-308 P8; 394-400 P9; 404-412 P10; 428-438* P11; 454-466* P18; 727-741 P23;836-837 P29; 1056-1059*

P13-14; 585-595 P14; 599-607 P16; 664-679* P19; 765-768 P20; 793-796 P20; 797-800 P20; 814-817 P21; 827-828* P21; 834-841 P21; 842-847 P24; 846-848 • Overcoming shame: P10; 416-418 P14; 612-627 P16; 685-688 P27; 964-966*/P28; 1008-1013*			P25-26; 914- 921 P26; 922-934* P26; 939-945 P27; 969-978 P33; 1194-1202* • The fear from asking for support: P22; 810-812 P22; 876-889 P23; 823-835 (Bring in realisation of not asking friends for support from P27; 988-994). *P32; 1152- 1160	

*Lines identified that were deemed of key significance and in need of further scrutiny

Appendix 2.P.g. Table B.14. Superordinate Index Participant-7 (C=comprehension, Mx= management, M=meaning)

Identity (C)	Understanding Loss (C)	Assessing life(C)	Managing Life after Redundancy (Mx)	Outlook on Life (M)
Subordinate themes: ***'The power of identity on influencing health outcomes'*** P1; 1-3 P3; 60-64 P5; 100-102 P7; 159-162 P12; 256-262 P2; 266-269 P13; 278-280	**Subordinate themes:** ***'Being dispensable'*** • Not wanting to believe: P3-4: 69-76 P17; 357-359 • Reality: P1; 7-10 P3; 48-50 P16; 339-344 ***'The internal battle between a general understanding for the business need and process of redundancies and the personal***	**Subordinate themes:** ***'Life after redundancy'*** Negative schemas: P2; 20-25 P3; 63 P4; 78-79 P4; 84-86 P4; 89-91 P4; 95-97 P6; 139-145 P7; 155-158	**Subordinate themes:** ***'Healthy coping'*** P2; 40-41 P6; 132 P8; 171-173 P9; 187-190 P10; 208-226 P11; 236-250 P13; 274-276 P14; 304-306 P23; 511-512 ***'Unhealthy coping'*** P6; 128-131	**Subordinate themes:** ***'The urgency to re-assess life priorities'*** P2; 34-36 P8; 175 P17-18; 367-387 ***'Assessing what is important'*** P5; 119-124 P8; 182-183

'The stressors from committing to the professional role' P3; 55-58 P3; 69-72 P4; 73-76 P5; 104-116 P9; 192-207 P17; 374-375 P26; 573-574 ***'The stigma from being unemployed'*** • Resigned to the shame: P13; 276-280 P15; 325-326** P20; 422-424 P20; 433-438** P21; 442-446	***experiences of redundancy'*** • General understanding: P1; 13-17 P16; 332-334 • Personal experiences: P2; 18-19 P5; 107-116** P15; 320-324 ***'Confusion'*** P2; 59-62 P14; 302-303 P16; 346-349** P18; 388 P22; 472 P24; 520-523; 529-530	P8; 168-170 P13; 273 P15; 309-318* Positive schemas: No reference ***'The health consequences from having responsibility in other employees' redundancies'*** No reference	P6; 136-138 P7; 148-152 P11; 233-235 P12; 253-255 P12; 271-272 ***'Support'*** • Positive experiences: P21; 447-453 P21-22; 455-460 P22-23; 473-487 • Negative experiences: P22; 458-466	P23; 488-494 * P23-495-508* P23; 526-528 P26; 564-567

P13; 279-280 • Overcoming shame: P25; 540-551				

*Lines identified that were deemed of key significance and in need of further scrutiny

Appendix 2.P.h. Table B.15. Superordinate Index-Participant 8 (C=comprehension, Mx= management, M=meaning)

Identity (C)	Trying to understand (C)	Assessing Life (C)	Managing Life after Redundancy (Mx)	Outlook on Life (M)
Subordinate themes: ***'The power of identity on influencing health outcomes'*** P1; 5-7 P13; 309-313** P15; 358-366** ***'The stressors from committing to the professional role'*** 'P2; 31-36 P3; 60-64 P5; 118-120**	**Subordinate themes:** ***'Being dispensable'*** • Not wanting to believe: P5; 120-123 P9-10; 224-232 P6; 131-132 • Reality: P4; 94-103**(both a mixture of not wanting to believe and the reality of being dispensable) P5; 104-111 P5; 114-117	**Subordinate themes:** ***'Life after redundancy'*** • Negative schemas: P7; 163-64 P8; 190-194 P19; 442-451 • Positive schemas: P7; 165-170 P8; 178-190 P11; 263-268 P12; 298-302**	**Subordinate themes:** ***'Healthy coping'*** P6; 153-156 ***'Unhealthy coping'*** P6; 133-147 P6; 149-151 P7; 157-162 P8; 194-199 P13; 321-325 ***'Seeking support'*** • Positive experiences: P15; 349-357	**Subordinate themes:** ***'The urgency to re-assess life priorities'*** P9; 207-214 P16; 376-381 ***'Assessing what is important'*** P18; 431-441

P12; 290-293 P12; 304-307 P17; 403-430** ***'The stigma from being unemployed'*** • Resigned to the shame: P6; 148** P8; 200-204 P11; 273-280** P12; 285-289 P13; 328-335 • Overcoming shame P14; 342-348	P7; 170-173 P9; 217-221 P10; 235-243 ***'The internal battle between a general understanding for the business need and process of redundancies and the personal experiences of redundancy'*** • General understanding: P1; 14-19 P2; 27-30 • Personal experiences: P2; 37-41 P3; 53-54 P3; 66-78** P4; 79-86 P11; 257-263**/ 268-272 ***'Confusion'***	P19; 455-458 P19; 469-471 ***'The health consequences from having responsibility in other employees' redundancies'*** No reference	P16; 374-375 • Negative experiences: P16; 370-373	

	P2; 22-26/ 42-45 P5; 129-130 P16; 382-402 (on the relationship)			

**/*Lines identified that were deemed of key significance and in need of further scrutiny

Appendix 2.P.i. Table B.16. Superordinate Index-Participant 9 (C=comprehension, Mx= management, M=meaning)

Identity (C)	Trying to understand (C)	Assessing life (C)	Managing Life after Redundancy (Mx)	Outlook on Life (M)
Subordinate themes: ***'The power of identity on influencing health outcomes'*** P15; 185-186 P15: 230-232 P22; 276-279 P25; 318** P25; 315-317 P26; 336-340 P27; 312-317 P27; 341-345 P27; 345-348 P28; 351-358 P31; 396-400	**Subordinate themes:** ***'Being dispensable'*** • Not wanting to believe: P6; 58-667 P6; 73-74 P7; 77-78 • Reality: P11; 121-134 P12; 137-142 P12; 149-150 P39; 506-508 ***'The internal battle between a general understanding for the business need and process***	**Subordinate themes:** ***'Life after redundancy'*** Negative schemas: P21; 251-259 P21; 260-265 P41; 529-531 P44; 576 P46-47; 600-604 Positive schemas: P31; 396-400 P34; 430-439** P42; 548-555	**Subordinate themes:** ***'Healthy coping'*** P26; 326-330 P29; 366-372 P30; 379-386 P35; 440-448 P35; 452-454 P43; 557-567 ***'Unhealthy coping'*** P22; 267-275 P24; 303-308 ***'Seeking support'*** • Positive experiences:	**Subordinate themes:** ***'The urgency to re-assess life priorities'*** P2; 14-16 P14; 164-167 P17; 215-217 P18; 218-220 P24; 303-308 P25; 309-310 P26; 323-325 P29; 360-362 P29; 366-372 P37; 478-479

P37; 466-472** ***'The stressors from committing to the professional role'*** P2; 3-13 P4; 32-37 P10; 111-114 P17; 201-203 P20;245-247 P32; 414-417 P33; 418-419 P35; 443-445 P44; 570-575 P47; 607-608 ***'The stigma from being unemployed'*** •Resigned to the fears: P36; 458-459	***of redundancies and the personal experiences of redundancy'*** • General understanding: P4; 37-38 P5; 40-43 P39; 507-511 • Personal experiences: P5; 47-52 P9; 96-97 P10; 114-115 P14; 174-175 P15; 178-181 P16; 193-194 P17; 207-212 ***'Confusion'*** P23; 291-295	P45; 579-582 P45; 583 ***'The health consequences from having responsibility in other employees' redundancies'*** P6; 55-57 P7; 68-71 P8; 80-95	P37; 479-488 P42; 545-546 P42; 555-556 • Negative experiences: P41-42; 534-544	***'Assessing what is Important'*** P4; 30 P13; 151-154 P14; 170-173 P19; 234-237 P33; 422-429 P46; 591-593

P36; 463-465 P38; 494-497 • Overcoming shame: P37; 475-476 P37; 478-481 P38; 483-485 P38; 489-490 / P40; 512-521				

**/*Lines identified that were deemed of key significance and in need of further scrutiny

Appendix 2.P.j. Table B.17. Superordinate Index-Participant 10 (C=comprehension, Mx= management, M=meaning)

Identity (C)	**Understanding Loss (C)**	**Assessing life(C)**	**Managing Life after Redundancy (Mx)**	**Subordinate themes:**
Subordinate themes: ***'The power of identity on influencing health outcomes'*** P10-11; 180-188* P11-12; 199-207 (non-accepting) P16; 251-264 **Linguistic frequency** ***'The stressors from committing to the professional role'.*** P1; 2-10 P7; 131-147*	**Subordinate themes:** ***'Being dispensable'*** • Not wanting to believe: P11; 189-193* P12; 209-214* • Reality: P13; 215-224* ***'The internal battle between a general understanding for the business need and process of redundancies and the personal experiences of redundancy'*** • General understanding: P2; 11-17 P2; 24-27	**Subordinate themes:** ***'Life after redundancy'*** Negative schemas: P4; 67-70 P4-5; 71-76 P6; 100-102* P8; 148-152* P8-9; 153-160 Positive schemas: P14-15; 240-248 P15; 249-350 P16-17; 289-286* P17; 287-291	**Subordinate themes:** ***'Healthy coping'*** P9-10; 166-176 P13; 225-226*(elements of identity) P14; 235-237 (elements of identity) P16; 264-269 ***'Unhealthy coping'*** P10; 177-179* P11; 193-198 P13-14; 227-234* P19; 293-300 P20; 311-316* ***'Support'***	**Subordinate themes:** ***'The urgency to re-assess life priorities'*** P9; 161-165 P14; 238-239 (survival) ***'Assessing what is important'*** No reference

'The stigma from being unemployed' • Resigned to the shame: P6; 105-111* P7; 112-118* P20; 305-310 • Overcoming shame: no reference	P3; 30-31 P3; 35-39 P3; 39-44 • Personal experiences: P2; 31-32* P3; 45-48 (key point line 46) * ***'Confusion'*** P5-6; 81-97/**'Clarity'** P4; 49-62	***'The health consequences from having responsibility in other employees' redundancies'*** No reference	•Positive experiences: P21; 319-323 (limited in his view) •Negative experiences: P20; 301-304 P21; 317-318 •The fear from asking for support: No reference	

**/*Lines identified that were deemed of key significance and in need of further scrutiny

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The Professional Practice Component of this thesis has been removed for confidentiality purposes.

It can be consulted by Psychology researchers on application at the Library of City, University of London.

Section D:

Systematic Review

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Section D: Systematic Review

The Effectiveness of Workplace Health Interventions for Ageing Workers: A Systematic Review

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Introduction

Background

We live in a world where the population is rapidly ageing, (Gibson, 2014). The technological advances of the 20th century and empowerment of disabled individuals have meant advantages to ageing adults such as, better health and consequential life longevity, (Ohshima, 2012). However, birth rates have reduced with individuals under 14 years of age being less in comparison to ageing adults. For example, a report by the European Union had calculated the overall population of member states between the ages of 0-14 years at 15.6 % compared to 18.9% of those over 64 years. The report concluded even further increase of the retirement population once most the baby boom generation reached this point, (Eurostat, 2016).

From an occupational perspective, this has meant changes in the demographics of the workforce. Industries are mostly reliant on ageing workers and with reduced expectations of replenishment from large numbers of younger employees, (Griffiths, 1999; Griffiths, 2000). Changes are visible in the rights to retire, with countries such as the UK making the default retirement age of 65 years non-compulsory thus encouraging work beyond this usual time limit, (Direct Gov; 2016).

Although the developed world provides services allowing for longer life, paradoxically life longevity increases chronic health concerns and disabilities, (World Health Organisation; 2016). The increase of health concerns due to greater numbers of ageing people will place a strain on industry productivity and overall economies, (Kune, 2012). Therefore,

maintaining healthy ageing staff through workplace health interventions has now become both a health and economic priority, (Arnone, 2007).

Research is indicating ageing employees face age-specific health problems which may require different support compared to younger staff, (Cipriano, Neves, Cipriano, Chiappa and Silva, 2014). Health concerns include slower cognitive functioning, poorer mobility and strength, whilst chronic illnesses resulting from long term physical and emotional lifestyle behaviours, (e.g. smoking, drinking misuse, diet, inactivity and stress), also come to the surface, (Cipriano et.al., 2014). Similarly, the stressors of everyday work have different impacts on ageing workers whom may also find themselves simultaneously addressing emerging health concerns in comparison to younger colleagues, (Boyas, Wind and Kang, 2012). In these cases, ageing workers could face life changing decisions whereby their health precedes work thus causing them to retire early, (Leenders, 2010).

Furthermore, ageing employees understanding of their health needs and subsequent coping are different to that of younger workers. For example, a study by Dale, (2004), concluded ageing academics suffering from musculoskeletal disorders reported high levels of sedentary work because of fear of injury, i.e. seeing desk work as *safe*. Such results are echoed in a study by Mezuk and colleagues, (Mezuk, Bonhert, Ratliff and Zinn, 2011), whom concluded ageing workers at lower levels of alcohol misuse in comparison to younger colleagues because of fears of medication interference.

Assessing the need for a review

The increase in ageing workers, their specific health needs and coping strategies, means more definitive conclusions are needed into the efficacy of ageing-worker-related workplace health interventions. In November 2014, online searches using the Cochrane Database of Systematic Reviews (CDSR) and Database of Abstracts of Views of Effects (DARE), where carried

out to identify any existing reviews on the effectiveness of workplace health interventions for ageing workers.

A systemtaic review by McDermott, Kazi, Munir and Haslam (2010), was identified. This investigated Occupational Health based (OH) interventions designed to increase health and workability of ageing employees, through workplace health promotion stragtegies. The systematic review identified and presented results from 21 Occupational Health based studies published between 2000 and 2008.

Although the above systemtaic review, encompassed similarities in assessing workplace health promotion strategies catered for ageing workers, it equally posed differences thus opening the opportunity to review and add to this novel area. The systemtaic review by McDermott et al. (2010), aimed to assess the effectiveness of evidence based Occupational Health approaches only and provide furture considerations to the discipline. In addition, as few studies were found through their original searches,inclusion criteria opened to studies with a mixture of both ageing and younger participants. This posed a limitation by dissallowing clarity into the effectiveness of interventions when solely considering ageing participants.

Although with identified differences, the above systematic review concluded recommendations that have been considered in the review at hand. A key recommednation was the need to assess the effectiveness of *primary stage* workplace health interventions. Differing from both *secondary* and *tertiary interventions* designed to assist high risk sick leave and return to work employees respectively, *primary stage* interventions help to equip general ageing working popualtions with subtle health changes, (e.g., increased physical activity, smoking cessation and better diet). This in turn increases the chances of health promotion concordance, resulting in decereases of later life health conditions, (McDermott et.al., 2010).

Furthermore a *life course approach* was suggested, meaning health promotion workplace interventions were introduced from middle adulthood onwards. By opening age ranges to include middle aged adults into the ageing worker cohort, employees would have more time to alter maladaptive lifestyle behaviours. The authors recommended such interventions being introduced to employees from the age of 40 given evidences of cognitive, physical and mental limitations from this age, (Cirla, Fazioli, Santini and Cirla, 2005).

Aim:

Following the above recommendations from the review by McDermott et al. (2010), coupled with Health Psychology principles, the aim of the current systematic review was as follows:

Assess the effectiveness of primary stage and life course workplace health interventions designed to promote better health in ageing workers from 40 years and over.

Method

Below were the criteria for selecting studies for this review, (Table D.1.)

Criteria	Inclusion	Exclusion
Study design	• All quantitative studies reporting pre- and post-measures	• All qualitative or mixed methods studies • Quantitative studies that did not report pre- and post-measures
Time of publication	• Studies published between 2008[8] and April 2015 (end-point of the review)	• Studies published before 2008
Types of participants	• All part-time and/ or full-time employees aged 40 years and above (primary stage support) • Employees whom were in work at the time	• Employees aged between 18-39 years of age • Employees identified as high risk of sick leave/ on sick leave (secondary stage support) • Employees returning from sick leave (tertiary stage support)
Types of intervention	• Primary stage/life-course workplace health interventions that had a psychologically based design and/ or reported psychological outcomes	• Workplace health interventions which were not psychologically based and/or reported

[8] 2008 was decided as the starting point of study searches given the systematic review by McDermott et al (2010), ended its searches in 2008.

		psychological outcomes. • Workplace interventions that targeted employees whom were identified at risk of sick leave, returning to work after long-term sick leave or close to retirement.
Comparators	• All studies with or without comparators were included	N/A
Outcome measures	• Studies had to report outcome measures both at base line and at follow up point/s. As studies in the area were limited, types of outcome measures were kept open.	N/A
Workplace settings	• Physically demanding (e.g. construction, nursing) • Sedentary (e.g. academia, office based work)	N/A
Job types	• Unskilled (e.g. cleaners, labourers) • Skilled (e.g. nurses, academic professionals)	N/A

Identifying studies

The following criteria were used to identify prospective studies:

(a) Databases were searched between January and April 2015, for studies published between January 2004 to April 2015:

1. Cochrane Central Register of Controlled Trials (CCTR)
2. Cochrane Database of Systematic Reviews
3. EMBASE
4. PsychInfo
5. PsychArticles
6. MEDLINE
7. EBSCOHOST Databases
8. Academic Search Complete
9. Business Source Complete
10. CINAHL Plus
11. E-Journals
12. Gender Studies Database
13. Health and Psychosocial Instruments
14. Health Policy Reference Centre
15. HEED
16. Regional Business News
17. Teacher Reference Center
18. Google Scholar
19. City University online library search

(b) The reference lists of all studies identified were searched to allocate other prospective studies.

(c) Only studies published in English were identified.

(d) A hand search was carried out in recent editions of the journal of Health Psychology, Journal of Occupational Health Psychology and Journal of Occupational and Organizational Psychology.

(e) A further search was undertaken of key authors in organizational health, i.e. Cheryl, H. and Ilmarinen, J.E. In addition, an email was sent to prospective authors to enquire for any unpublished UK based health interventions for ageing workers. Unfortunately, there were no responses.

(f) The following search terms were used during database searches:

Worker or work* or workforce or workplace or staff or employee

AND

Old* or ageing or age* or aging

AND

Health or wellbeing or well* or well-being or wellness or sedentary or physical activity

AND/OR

Inter* or intervention* or interventions or promotion*

AND/OR

Psychological or psycho educational or behavio*

AND/OR

Randomised or randomized

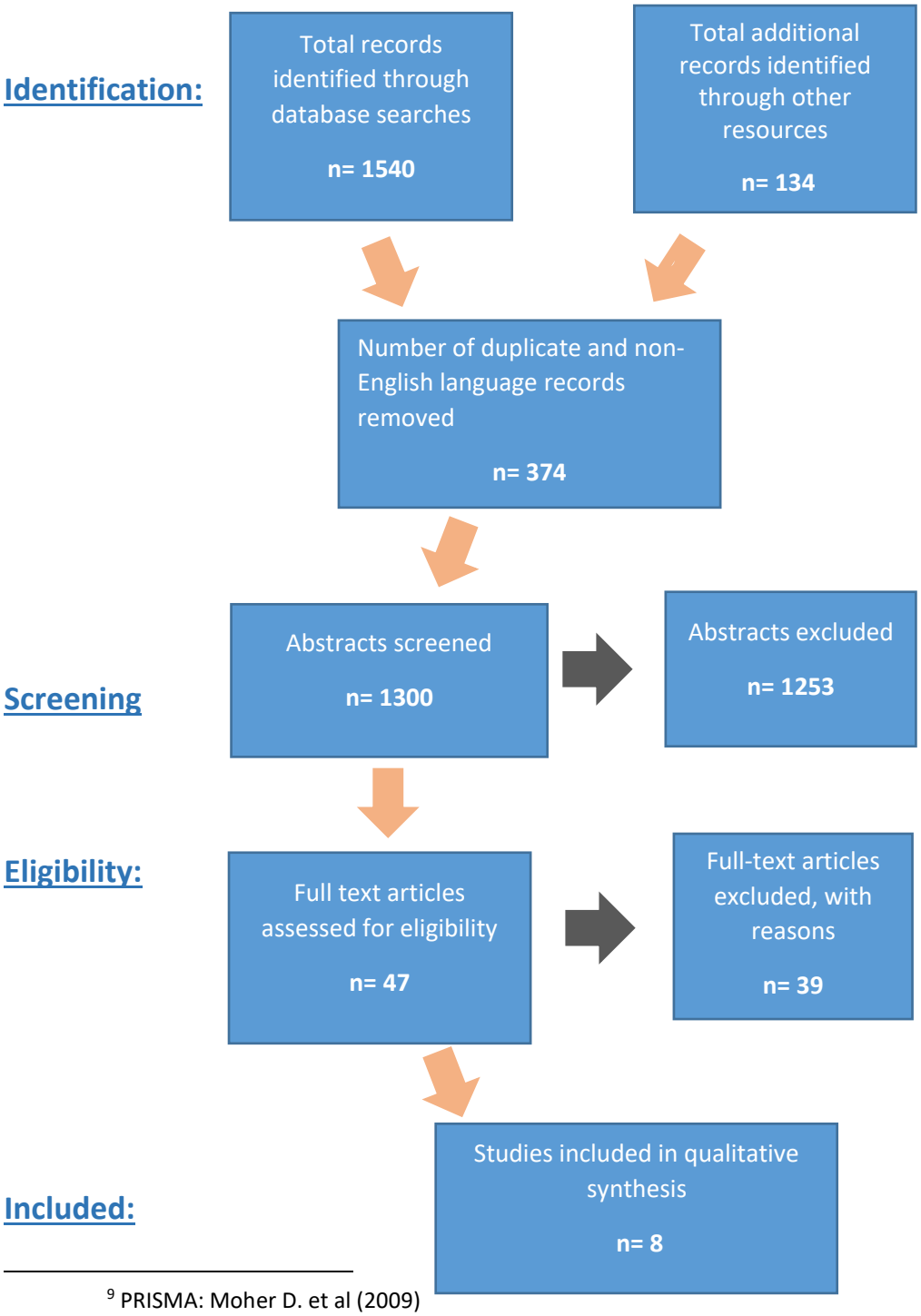
AND/OR

Quasi-experimental

Results

Description of studies

A total of 1674 abstracts were identified for inspection. The following PRISMA[9] diagram **(Figure D.1.)**, describes the stages of review used to identify studies for synthesis:



[9] PRISMA: Moher D. et al (2009)

In accordance to the PRISMA checklist, one separate flow chart illustrating the identification of records through specific database searches has been included in appendices (2. b.1.) to allow search duplication, (Moher, Liberati, Tetzlaff, Altman, PRISMA Group; 2009).

From database and hard copy reference checks forty-seven studies were identified for full-article investigation and assessed for inclusion eligibility. Out of these articles, thirty-nine did not meet criteria[10].

The main exclusion reasons were:

- Interventions were not primary and life-course programs
- Studies had included younger employees
- Trials did not include a psychological component and/or outcome
- Designs included qualitative analyses
- Trials were at protocol stages with no published findings. The researchers of protocol papers were contacted for further information. This resulted in one successful reply of a completed paper that was included for review, (Koolhaas et al. 2015).

Eight studies were identified for qualitative synthesis and authors of the identified studies were contacted for further information that would assist with assessments. A quality check was then conducted using an in-house data extraction list (appendices 2. b.3. and 2. b.4.) and the NICE quality appraisal checklist for quantitative intervention studies (NICE; 2016), whereby the effectiveness and efficacy of each intervention study was assessed. This was done by two raters whom discussed and agreed on any discrepancies in quality scores. A further quality assessment was then

[10] For a full list of excluded papers and reasons for exclusion, please refer to Appendix 2.b.2.

undertaken by using each raters NICE quality check scores to calculate the Cohen's Kappa Coefficient, (Altman, 1991).

The following table (Table D.2.) provides a summary of extracted data, effect sizes[11] and overall quality scores for each included study:[12]

[11] Effect sizes were calculated for both studies and outcome measures, where mean and standard deviation data was provided.

[12] For a full list of each studies extracted data used during quality assessment and quality scores, please refer to Appendices 2.b.5., 2.b.6.a. & 2.b.6.b.

Table D.2. Summary of extracted data and overall quality scores for each included study

Author(s) (year)	Intervention format /description	Participants	Design	Outcomes	Key findings	NICE quality score
Hughes et al (2011)	12-month online behaviour change intervention, & /or additional face-to-face support with components in stress management	N=423, Male: 18% Female: 82% Age: <40 years Skilled and non-skilled job types	12 month RCT	- Diet - Physical activity - Smoking - Stress - Physiological measures	**Diet and physical activity:** **online=** P>0.05, **Online & face-to-face support** =P<0.05. **Physiological measures:** 1 significant difference with waist circumference favouring online only.	Internal validity= 1 External validity= 0

Koolhaas et al (2015)	12-month behavioural change, goal setting and work engagement intervention through group and 1-1 support via departmental supervisors trained in behaviour change techniques	N= 125 Male: 25 participants Female: 100 Participants Age: <45 years Skilled and non-skilled job types	12-month quasi-experimental study	**Primary outcomes:** - Work ability, vitality & productivity **Secondary outcomes:** - Fatigue, - Psychosocial work characteristics, - Work attitude - Work engagement - Self-efficacy	**Primary outcomes:** No significant differences reported **Secondary outcomes:** Fatigue, self-efficacy, psychosocial work characteristics and work attitudes P<0.05	**Effect size:** Work ability d= 0.04 Fatigue d=0.19 Psychosocial work characteristics d=3 Self-efficacy d= 0.62 Work engagement d=0.07 **Mean effect size d=0.78**	Internal validity=1 External validity= 0

Stevens-Roseman, (2009)	6-month behavioural change intervention targeting life and work satisfaction through older workers mentoring younger colleagues in goal setting	N=22 Female=21 participants Male=1 Age: <55 years Skilled or unskilled job specification was not provided	6-month RCT	- Life satisfaction - Workplace retention	**Life satisfaction**= P<0.05 **Workplace retention**= P>0.05	**Effect size:** Life satisfaction d=1.5	Internal validity= 0 External validity= 0

Chen et al. (2014)	24-week two-phase behaviour change workshops / psychological individual support	N= 108 Female= 59 participants Male= 49 participants Age=<50 years Skilled and unskilled workers	24- week Quasi-experimental study	- Diet - Physical activity - Time-use - Stress - Physiological measures - Biochemical markers	**Physical activity**= P<0.05 **Physiological measures:** Weight=P<0.05 Waist circumference (WC)= P<0.05 BMI=P<0.05 **Biochemical markers:** Total cholesterol (TC)=P<0.05 High-density cholesterol (HDL)= P<0.05 Triglyceride (TG)= P<0.05 Low-density cholesterol (LDL)= non-significant	**Effect size:** WC d=0.98 BMI d= 0.59 TG d=0.13 HDL d=0.6 LDL d= 0.2 Blood pressure: SBP d=0.08 DBP d=0.07 **Mean effect size d=0.38**	Internal validity= 1 External validity= 0

Strijk et al. (2009)	6-month workplace yoga, fitness and aerobics class intervention with additional 1-1 behavioural change support	N=730 Female= 75% Male=25% Age: <45 years Skilled workers	6-month RCT	- Physical activity - Fruit intake - Aerobic capacity - Mental health - Need for recovery, (NFR)	**Physical activity (PA)**= P<0.05 **Fruit intake (F)**= P<0.05 **NFR**= P<0.05 **Mental health & aerobic capacity** = Non-significant	**Effect size:** PA d=0.10 F d= 0.12 NFR d= 0.05 Mental health d= 0.05 Aerobic capacity d= 0.07 **Mean effect size d=0.08**	Internal validity= 2 External validity= 1

Palumbo et al. (2012)	15-week onsite Tai-Chi class intervention	N= 14 Female only Age: <40 years Skilled workers	15-week RCT	- Physical & mental health/wellbeing - Work stress - Work limitations & productivity - Risks for MSK injuries	**Work limitations & productivity**= P<0.05 **Risks for MSK injuries (Functional reach test only) =** P<0.05 **Work Stress, Physical & mental health/wellbeing= Non-significant**	**Effect size:** General health d= 0.6 Mental health d=0.5 Work stress d= 0.4 Work limitations & productivity d= 1.77 Risks for MSK injuries d= 0.45 **Mean effect size d= 0.74**	Internal validity= 0 External validity= 0

Cook R.F. et al (2015)	3-month web-based health intervention with components in stress management accessible both in the workplace and at home	N=278 Female= 90 participants Male= 187 participants Prefer not to say= 1	3-month RCT	- Distress - Stress - Diet - Barriers to healthy diet - Eating practices - Overeating self-efficacy - Planning healthy eating - Diet change self-efficacy - Weight - BMI - Exercise habits - Exercise self-efficacy - Self-efficacy for overcoming barriers to exercise - Exercise planning - Beliefs about ageing - Tobacco use	**Planning healthy eating:** P=0.03 **Diet change self-efficacy:** P=0.048 **Exercise habits:** p=0.01	Internal validity =1 External validity = 0

Rutanen R. et al (2014)	24-week Physical exercise intervention aimed to improve work ability and daily strain among female employees with menopausal symptoms.	N=123 Female employees only 40 years and older showing menopausal symptoms	24-week RCT	- Work ability - Physical strain - Mental strain - Physiological measures - Daily diary logs of activates	**Physical strain:** p=0.025 **Mental strain:** p<0.01	**Effect size:** Work ability d=0.17 Physical strain d=0.5 Mental strain d=0.18 Physiological measures d=0.17 **Mean effect size d= 0.25**	Internal validity=1 External validity=0

Findings

To help answer the reviews aim, extracted data shall be synthesised and presented using the key findings illustrated in Table D.1 and appendix 2. b.5.

Overview of the included studies

The studies identified were based on experimental primary stage and life course interventions published between 2008 and April 2015. A total of 1823 participants were included with ages that ranged from 40 to 75 years. All studies included a psychological component either in the intervention itself and/or outcomes. When referring to quality checks of studies using the NICE quality appraisal checklist for quantitative intervention studies, (NICE; 2016), there was good agreement between both ratars. Cohen's Kappa value was calculated at K=0.644[13]. Overall, the internal and external validity quality scores for all studies were moderate to low, (Table D.1. and appendix 2. b.6.), with only the study by Strijk et al. (2012) scoring highly for internal validity (2 points).

In addition, participants originated from a mixture of sedentary or active work settings and skilled or un-skilled job roles. Only three studies reported specific work settings and/or job roles, (Strijk et al. 2009; Palumbo et al. 2012; Cook et al. 2015). When referring to country of origin, studies were conducted in four countries with four from the U.S.A, two from the Netherlands, one from Taiwan and one from Finland.

[13] For Cohen's Kappa Value table please refer to appendix 2.b.7

Intervention format

Findings indicated the studies followed one of two intervention styles. These being:

- Psychologically based interventions.

Or

- Physically based interventions.

1) Psychologically based interventions

These studies followed a design format whereby the intervention included psychological approaches. For example, one-to-one support using principles from motivational interviewing, (Hughes et al. 2011). The studies that used psychologically based interventions were:

- Hughes et al. 2011
- Koolhaas et al. 2015
- Steven-Roseman 2009
- Chen et al. 2014
- Cook et al. 2015

Intervention designs

- **Psychological approaches:**

Findings indicated a similarity between all five studies incorporating goal setting approaches to assist staff with behavioural change. In the case of Hughes et al. (2011) this was in the form of one-to-one Motivational Interviewing support alongside a web-based approach (COACH). With regards to the study by Koolhaas et al. (2015), goal setting was introduced through supervisors whom had received training in such goal setting. Steven-Rosen (2009) reported participants themselves being trained in behavioural change goal setting to help mentor younger staff in best practices at work. When referring to Chen et al. (2014) staff were provided both workshop and one-to-one support whereby training was provided in

setting goals to reduce metabolic risk behaviours. Finally, the study by Cook et al. (2015) provided web-based support designed using Social Cognitive Theory, (Badura, 1986). The use of this theory assisted authors to create an intervention which aimed to improve self-efficacies and consequently increase internal motivations needed to improve health behaviours.

Although all referred studies included psychological elements in their intervention designs, only the studies by Hughes et al. (2011) and Cook et al. (2015) provided descriptions of using evidence-based psychological approaches whilst the remainder studies described generic goal setting techniques. It is therefore difficult to replicate the latter interventions which in turn complicates chances of future improvements.

- **Web-based approaches:**

Studies by Hughes et al. (2011) and Cook et al. (2015) reported the use of web-based designs. In the case of Hughes et al. (2011) the study described the comparison of two web-based intervention trials COACH (web-based and one-to-one psychological support) and RealAge (web-based only). Although results from the study showed greater success using COACH, the effectiveness of RealAge should be further investigated given the authors reported possible errors in usage rather than web-based content.

Finally, Cook et al. reported a solely web-based intervention, focusing on behavioural change approaches using Social Cognitive Theory (Bandura 1986). This was made accessible to employees at all times. These interventions therefore require replication to establish the effectiveness of web-based approaches with an emphasis on web usage, accessibility and behaviour change techniques.

Design

Even though studies by Hughes et al. (2011), Steven-Rosen (2009) and Cook et al. (2015) reported randomised controlled trials, it was only the study by Hughes et al. (2011) that used robust measures through computerised randomisation programmes. Cook et al. (2015) had processed randomisation through a block number system whilst Steven-Rosen used number allocation through a participant name list, thus increasing bias through human error. Furthermore, the study protocol by Koolhaas et al. (2015) recommended an RCT approach, however this was not utilised during the intervention as authors had opted for a quasi-experimental design. Similarly, Chen et al. (2014) had used a quasi-experimental design to ensure participant allocation. However, in this case the authors gave sufficient explanation that RCT format was not possible as participants worked on a range of shift patterns. As such, the strengths of findings for studies by Koolhaas et al. (2015), Cook et al. (2015), Chen et al. (2014) and Steven-Rosen (2009) are open to bias.

Psychological outcome measures

Psychological outcome measures across studies were heterogeneous, making it difficult to compare effectiveness. Out of the five studies only Hughes et al. (2011), Koolhaas et al. (2015) and Cook et al. (2015) reported the use of standardised measures thus increasing the studies robustness in this area. With regards to Steven-Rosen (2009) and Chen et al. (2014), both studies used in-house designed outcome measures. These psychological outcome measures were used to assess life satisfaction and work retention, (Steven-Rosen, 2009) and stress, (Chen et al. 2014). Contact was attempted to investigate the validity and reliability of psychological outcome measures, however with no success. As such, the validity and reliability of psychological outcome measures used by Steven-Rosen et al. (2009) and Chen et al. (2014) are questionable.

Participant types and attrition rates

All five studies reported the assessment of descriptive data at base-line and four had adjusted calculations for confounding variables, (Hughes et al. 2011; Koolhaas et al. 2015; Chen et al. 2014 and Cook et al. 2015). When considering power calculations to assess participant numbers used, three studies reported their results, (Hughes et al. 2010; Chen et al. 2014 and Cook et al. 2015). Thus, bias is reduced in these areas for the referred studies which contributes to the studies strengths.

When considering participant gender there is clear imbalance for three out of the six studies with a dominance of female participants, (Hughes et al. 2011; Koolhaas et al. 2015 and Steven-Rosen et al. 2009). This in turn makes it difficult to compare results from the referred studies in the general population. With regards to Chen et al., (2014), the study was conducted across three work sites but with heterogeneity in participant numbers between sites thus increasing study bias.

Finally, attrition rates were reported by four out of five studies except for Steven-Rosen (2009). Attrition rates were calculated at mean percentage of x= 17%. Even though the mean was at moderate levels, the range of attrition rates was larger thus indicating increases in bias from drop-out rates. For example, Chen et al. (2014) reported a low attrition of 8%, whereas the study by Koolhaas et al. (2015) documented a large attrition of 44% participants.

Results

- **Psychological changes**

Only three studies reported significant behavioural changes associated with psychological wellbeing and/or occupational psychosocial behavioural changes. Although primary outcomes were non-significant the secondary outcome measures used by Koolhaas et al. (2015) reported significant changes in self-efficacy, ($p<0.05$), work characteristics, ($p<0.05$), and work attitudes, ($p<0.05$). In addition, the mean effect size of the intervention was

measured at d= 0.78, thus concluding a large effect in comparison to the control group.

Indeed, when reviewing interventions from the study separately, psychosocial work characteristics measured using the Job Content Questionnaire, (JCQ; Karasek, Brisson, Kawakami, Houtman, Bongers and Amick, 1998), reported an effect size of d=3 thus indicating a large effect in comparison to the control group. Similarly, self-efficacy measured by using the Dutch adaptation of the General Self-Efficacy Scale (ALCOS-16; Bosscher, Smith, Kempen and Algemene, 1997) presented large effect in comparison to the control group at d=0.62.

Translated in over 22 languages, (JCQ Center, 2017), the JCQ has been widely used to measure work-related psychosocial characteristics such as stress related risks, psychological demands and social support, (Choi, Bjorner, Ostergren, Clays, Houtman et. al., 2009; JCQ Center, 2017). It is noted for its simplicity, reliability and validity, (Lansbergis and Theorell, 2000), being easily applied at both individual micro-level assessing psychosocial work behaviour and to assist socio-economic policy, (JCQ Center, 2017).

When referring to the ALCOS-16, this has also been widely used given its good test-retest reliability, (Boosman, Visser-Miley, Meijer, Elsinga and Post, 2011). It has helped measure self-efficacy of participants suffering neuromuscular or multiple sclerosis attending group based interventions, (Boosman et al., 2011); self-efficacy changes from multidimensional rehabilitation programmes designed for cancer survivors, (van Weert, Hoekstra-Weebers, Otter, Postema, Sanderman et a., 2006) and the effectiveness of aerobic exercise and cognitive behavioural interventions for patients with Amyotrophic Lateral Sclerosis, (Van Groenestijn, Van de Port, Schroder, Post, Grupstra et al. 2011).

Significant changes in self-efficacy are echoed in Cook et al. (2015), reporting self-efficacy from changing diet behaviours at p=0.048. Although the significant results indicated the interventions had helped change diet behaviour for the better and improving self-efficacy, data was not provided

in this study which would have allowed for effect size calculations. As such the interventions level of effectiveness remains unclear.

Finally, when referring to life satisfaction as reported by Steven-Rosen (2009), are questionable given the reliability of the questionnaire used is unknown. Nonetheless, the study reported the efficacy of psychological improvement through mentoring younger colleagues. Additionally, the effect size of the intervention was measured at d=1.5 when compared to the control group. Although open to bias, such results provide evidence for further investigation into the effectiveness of such interventions by opting for standardised measures to ensure robustness.

- **Physical changes**

Although, Hughes et al. (2010) did not report significant psychological changes, the authors calculated significant changes in diet, fruit consumption and physical activity for participants whom received a combination of web-based support with psychological one-to-one support. This provides further evidence that psychological interventions can influence physical health outcomes. Finally, the study highlighted that the non-significant results in stress reductions may have been to the short period of the intervention rather than the intervention itself.

In addition, Chen et al. (2014) reported significant changes in physiological measures, these being increased physical activity, ($p<0.001$), weight reduction, (W; $p=0.026$), waist circumference reduction, (WC; $p<0.001$) and body mass index, (BMI; $p=0.006$). The authors reported the combination of behavioural change workshops and one-to-one support run by Occupational Nurses and later user-led workshops gave enough support to increase the motivations of participants to change behaviours. However, when considering effect size, the effectiveness of the intervention in comparison to the control group was measured at d= 0.38 showing small changes. Such

data needs to be considered when designing future interventions aimed to replicate format.

2) Physical based interventions

In these studies, interventions had a physical health format aimed to measure psychological outcomes. Out of the nine studies reviewed, three had predominantly physically based interventions. These were as follows:

- Strijk et al. (2012)
- Palumbo et al. (2012)
- Ratunen et al. (2014)

Intervention Designs

- **Physical approaches**

All three studies included interventions comprised of on-site physical activities. However, the content of physical activities and duration were different between studies thus making it difficult to compare. When referring to Strijk et al., (2012), the study included on-site yoga, fitness and aerobic classes at 45-minute intervals each over a six-month period. With regards to Pulambo et al. (2012), the authors had designed an intervention which introduced participants to both on-site and home Tai Chi sessions at 45-minute and 10-minute intervals respectively. These were accomplished over a fifteen-week period. Finally, the study by Rutanen et al. (2014) targeted behavioural change using on-site 50-minute exercise sessions, four times per week and over six months.

- **Additional psychological approaches**

Although all three studies were primarily designed to change psychological behaviours through physical activities, the study by Strijk et al. (2012) had an additional psychological element of one-to-one support in goal setting and problem solving. As such, it is difficult to view from this study whether

the physical, psychological or a combination of both components influenced outcomes.

Design

All three studies reported to be randomised controlled trials, however the study by Palumbo et al. (2012) was open to subjective randomisation as participant up-take was reliant on a first come first serve basis. In addition, the study does not report its randomisation process thus increasing bias. The randomisation processes for both Strijk et al. (2012) and Rutanen et al. (2014) are robust given randomisation computer software were used to allocate participants in intervention and control groups.

Outcome measures

All three studies (Strijk et al. 2012; Pulambo et al. 2012 and Rutanen et al. 2014), reported the use of psychological outcome measures alongside physical change outcomes. As psychological outcome measures varied between studies, it is difficult to present comparative calculations in outcome efficacies. Nonetheless, the effect sizes for each intervention were calculated and shall be reported below.

In addition, all three studies reported the use of standardised psychological measures to record possible changes in both psychological and psychosocial outcomes. However, the study by Rutanen et al. (2014) did not report whether the questionnaire used to measure mental strain and mental health amongst participants was standardised or not. As such, results from this specific apparatus are open to bias.

Participant types and attrition rates

Two out of three studies reported the assessment of descriptive data at base-line and the same two studies had adjusted calculations for

confounding variables, (Strijk et a. 2012 and Rutanen et al. 2014). When assessing the use of power calculations, both Strijk et al. (2012) and Rutanen et al. (2014) documented usage. Study bias is therefore reduced in the above areas for the referred studies. With regards to the study by Pulambo et al. (2012) the assessments of descriptive data, confounding variables and use of power calculations were not reported.

When considering participant gender there is clear imbalance across all three studies thus creating difficulties in generalising results externally. Both studies by Pulambo et al. (2012) and Rutanen et al. (2014) had created interventions targeting the health of female staff. Although the Tai Chi intervention by Pulambo et al. (2012) could be applied to male participants, it is difficult to view its effectiveness from current female-only results. In addition, the study by Strijk et al. (2012) reported a dominance of female participants with only a mean total of x=25% males taking part.

Finally, the mean attrition rate between the three studies was calculated at x=15%, with the lowest attrition rate at 7% (Rutanen et al. 2014) and highest at 21% (Pulambo et al. 2012). It is important to highlight that the study by Pulambo et al. (2012) had a small number of participants at n=14, which alongside a high attrition rate of 21% places the efficacy of the intervention under questioning.

Results

- **Psychological changes**

All three studies reported significant changes in psychological wellbeing and/or occupational psychosocial behaviours. Although mental health outcomes were non-significant, Strijk et al. (2012) reported significant reductions in work related stressors through need for recovery tests ($p<0.05$). However, when reporting the overall effectiveness of the intervention, overall effect size was small at d= 0.08 with the highest effect size in fruit intake at d=0.12. As such, significant findings need to be considered alongside small changes in comparison to the control group.

In addition, Palumbo et al., (2012), documented increased work productivity at p=0.03, when considering overall scores via the Work Limitations Questionnaire, (Lerner, Amick, Malspeis, Rogers, Gomes et al. 1998). This is echoed in a larger overall effect size for the intervention at d= 0.74 with the effectiveness of the WLQ at d=1.77.

The WLQ, has been referred to as '…a promising measure…' (ref; p. 229), designed to allow usage across a wide range of chronic health disorders in various job settings. For example, with workers' compensation claimants with chronic upper-limb disorders, (Tang, Beaton, Amick, Hogg-Johnson, Cote and Loisel, 2013), assessing work functioning of cancer survivors, (Tamminga, Verbeek, Fringes-Dresen and De Boer, 2014) and working people with rheumatoid arthritis, (Walker, Michaud and Wolfe, 2005). It allows for a biopsychosocial approach addressing time management, physical demands, mental-interpersonal tasks and work productivity, (Tang et al., 2013); whilst its internal consistency and structural validity has been noted, (Tamminga et al. 2014).

Finally, Rutanen et al., (2014), reported significant changes in mental resources (p<0.01). However, in the case of results from Ratunen et al., (2014), psychological outcomes are subject to study bias given the standardisation of outcome measures was not reported, whilst overall effect size was reported small (d=0.25).

- **Physical changes**

When referring to physical health improvements, all three studies report significant changes in participant's outcomes whom undertook the interventions. Strijk et al. (2012) documented significant changes in physical activity levels, (p<0.05) and fruit uptake, (p<0.05). In addition, Pulambo et al. (2012), reported significant improvements in physical functioning, specifically that of the Functional Reach test, (Thornton, Sykes and Tang, 2004), amongst participants, (p<0.01). Ratunen et al. (2014), highlighted significant changes in physical strain at p=0.025. However, akin to significant

psychological results, physical change reports by Ratunen et al. (2014) are open to study bias given the standardisation of measures is unclear.

Finally, the overall effect size of interventions by Strijk et al. (2011) and Ratunen et al. (2014) were calculated small (d<0.50) with only Pulambo et al. (2012), reporting large overall effect size at d= 0.74. However, it is important to note the physical outcome measures for all three mentioned studies were deemed small at d<0.50 with only the Functional Reach Test, (Thornton et al. 2004), used by Pulambo et al. (2012) reaching d= 0.45. As such, the effectiveness of physically based interventions is small when compared to control groups.

Discussion

Overview

This is a relatively new area with only eight studies fulfilling the inclusion criteria. Although overall validity of studies was low to moderate, this is understandable given the novelty of the area. As such it is important to learn from the assessed studies to inform future interventions, albeit with caution due to study bias. All studies assessed the effectiveness of work-based health interventions for ageing workers, introducing primary stage interventions via life course approaches to employees from starting ages of 40, 45 or 50 years.

Are psychologically based health interventions, effective in promoting positive behavioural changes in ageing employees?

From the reviewed studies, it is difficult to establish the effectiveness of psychologically based interventions when referring to primary stage life course strategies aimed at ageing workers. The review had only identified six studies that were seen to have primarily psychological interventions and as referred to in findings, the studies were open to study bias. For example,

only studies by Hughes et al. (2011), Strijk et al. (2012) and Rutanen et al. (2014) reported robust RCT designs through computerised randomisation processes, whilst remainder studies used subjective randomisation approaches, (Steven-Rosen et al., 2009 and Cook et al., 2015) or quasi-experimental designs, (Koolhaas et al., 2015 and Chen et al., 2014).

In addition, although all studies referred to the use of goal setting techniques through one-to-one and/or workshops, only studies by Hughes et al. (2011) and Cook et al. (2015) highlighted the use of evidence-based approaches. This was either done through the intervention itself via motivational interviewing principles, (Hughes et al., 2011), or as theoretical underpinnings of the whole intervention design by adopting Social Cognitive Theory, (Bandura, 1986, as observed in the study by Cook et al., 2015). Although, studies reported significant improvements in health outcomes, the results from certain outcome measures were questionable given assessment tools were designed for the study and without evidence of standardisation, (Steven-Rosen et al. 2006; Chen et al., 2014 and Cook et al. 2015). Finally, generalisability to external populations is difficult given the predominance of female participants, (Hughes et al. 2011; Koolhaas et al. 2015; Strijk 2012; Pulambo et al. 2012 and Rutanen et al. 2014) and high attrition rates, (Koolhaas et al. 2015).

Although the review identified a number of limitations, it is evident that such health interventions with psychological goal setting elements have the potential to improve in future trials. All studies concluded the use of goal setting techniques whether in one-to-one or workshop formats, provided participants the resources needed to reduce both psychological and physical risks behaviours. From the identified studies it seems that such strategies gave participants the opportunities to review their current health status, whether with professionals or collegues, and challenge their health attittudes for the better. The effectiveness of goal setting techniques are echoed in previous workplace health interventions. Although aimed for both younger and older employees, the use of goal setting apporaches have shown to

revert maldaptive risk behaviours such as unhealthy eating (Clark, Bradley, Jenkins, Mettler, Larson et al., 2016) and inactivity, (Lippke, Fleig, Wiedemann and Schwerzer, 2015).

Are physically based health interventions, effective in promoting positive behavioural changes in ageing employees?

In the case of physically based interventions only three studies were identified that fulfilled inclusion criteria. As such, findings from these studies are difficult to use when referring to the general ageing workforce. Similar to the reviewed psychologically based studies, the physical based interventions had low to moderate validity scores and were open to study bias. For example, the study by Pulambo et al. (2012) used subjective randomisation measures, whilst psychological outcomes from Rutanen et al. (2014) are questionable given the authors did not report whether outcome measures used were standardised. Finally, participants across all three studies were predominantly female and high attrition rates were documented.

Nonetheless, it merits noting that all three studies documented the effectiveness of physically based classes such as Yoga (Strijk et al., 2012), Tai Chi, (Pulambo et al., 2012) and instructed exercise classes, (Rutanen et al., 2014), as methods in reducing adverse physical and psychological health effects. Such results are also evident in previous studies such as Mayer, Quillen, Verna, Ren and Lunseth et al., (2015) whom documented the significant increases in back muscle endurance and core muscle endurance in firefighters receiving 24-week supervised exercise programmes.

In conclusion, the reviewed studies highlighted the provision of instructed support as methods of increasing participants' motivations to take part in physical activities and learn exercise routines to improve health outcomes. However, it is important to highlight that the study by Strijk et al. (2012) used additional one-to-one goal setting support alongside physical activities. As

this was the only study to report a combination approach with individual goal setting support as a secondary add-on to physical activities, it is difficult to conclude whether such intervention designs are more efficacious for ageing workers.

Psychologically based interventions versus physically based interventions: which are more effective in improving ageing workers' health?

Given the limited number of studies identified, low quality check scores and heterogeneity between intervention designs and outcome measures, it is difficult to report whether one intervention format is better than the other. As health promotion in ageing workers is still a novel area compared to health promotion of general staff populations, it merits to study the efficacy of both designs separately and combined.

Future recommendations

1)Biochemical Markers

Although the study by Chen et al. (2014) reported small effect sizes when referring to biochemical markers, the efficacy of such outcome measures has been documented as a way of reducing self-reporting bias and gaining true readings of behaviour change, (Yamamoto, 2009). As such it is recommended that future interventions targeting metabolic changes in ageing workers should use such measures. Greater time is also recommended to report meaningful changes.

2)Psychosocial outcome measures

Studies by Koolhaas et al. (2015), Strijk et al. (2012) and Pulambo et al. (2012) reported significant changes in psychosocial affects from work. However, it bears notice psychosocial based interventions of which fruited

large effect sizes were found only by Koolhaas et al. (2015) in both work characteristics and self-efficacy at d=3 and d=0.62 respectively. This may equally be stated for the WLQ used by Pulambo et al. (2012) calculating effect size at d=1.77. It may be probable that employees could relate to the psychosocial limitations, (e.g. time management, work-related support, job demands), in the workplace better than general mental health, which in turn yielded significant results and larger effects in comparison to control groups. Use of the following outcome measures in future workplace health interventions targeting ageing workers are recommended:

- Job Content Questionnaire, (Karasek et al. 1998)
- General Self-Efficacy Scale ALCOS-16 (Bosscher et al. 1997)
- Work Limitations Questionnaire (Lerner et al. 1998)

3) Taking a pragmatic approach

As the aim of such interventions are to increase health outcomes in the workplace, trials are needed that assess cost effectiveness of interventions by calculating post-trial health changes alongside unscheduled time off from sick leave and work productivity. Such approaches should increase support from employers needed to approve interventions and employees taking part, (Chapman, 2009).

4) Longitudinal designs

By delivering workplace health interventions at primary stages and through a life course approach, ageing employees are given time to learn health promoting strategies which in turn could reduce risks of later life health conditions. However, to capture the reductions of health-related risks over time it is advisable to design longitudinal studies whereby health risks are measured from middle adulthood and into retirement.

Conclusion

In conclusion, primary stage life course health promotion interventions targeting ageing workers are beneficial and are showing evidences of significant changes health outcomes. However, conclusive evidence for the effectiveness of psychologically based and physically based health interventions for ageing workers is still unclear with no recommendations of a specific design. Given the limited trials reviewed, low quality scores and heterogeneity between studies, it is crucial to follow recommendations from each intervention design and increase investigations in each format.

The world is ageing and with that public health and economic concerns are starting to show. It is therefore imperative that investment is placed in developing primary stage life course interventions aimed at ageing workers of all environments and job roles.

Appendix 2. b.1. Example of electronic database searches

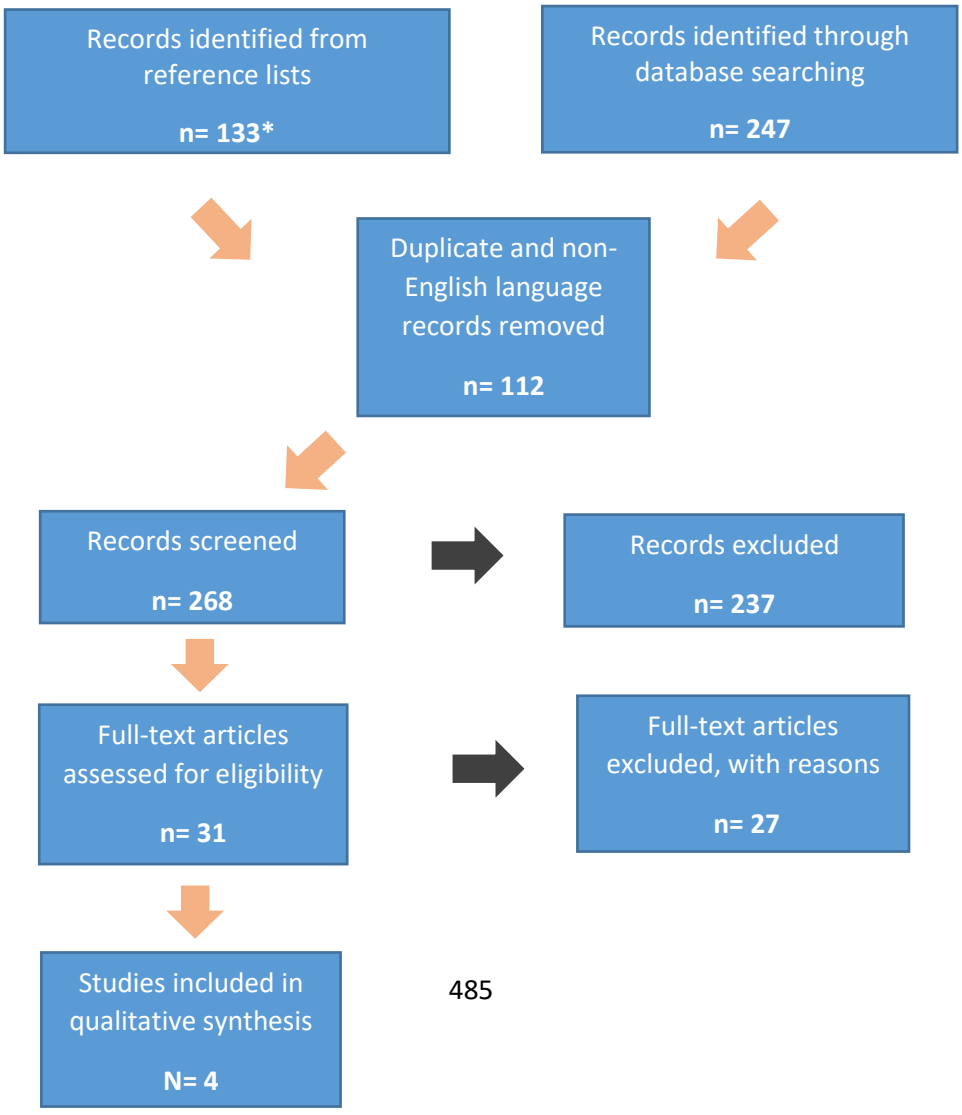
Stage 1) PRISMA flow chart (Figure D.2.) from electronic database search with key search words:

'Workplace AND Intervention AND Ageing'

The database search was carried out using Ebscohost search engine and the following database combination:

- Academic search complete
- Business Source Complete
- CINAHL Plus
- EBook Collection (ebscohost)
- E-Journals
- Gender Studies Database
- Health and Psychosocial Instruments
- Health Policy Reference Centre
- Regional Business News
- Teacher Reference Centre

Search Time-Frame: January 2004 to April 2015



Stage 2) * Records identified from the reference lists of the following papers:

- McDermott, H.J.; Kazi, A.; Munir, F. and Haslam, C. (2010) Developing occupational health services for active age management. *Occupational Medicine.* Volume 60: 193-204. **(21 papers identified for abstract screening)**

- Delloiacono, N. (2015). Musculoskeletal safety for older adults in the workplace. *Workplace Health & Safety.* Volume 63 (2): 48-53. **(34 papers identified for abstract screening)**

- Ferreira, M. L.; Sherrington, C.; Smith, K.; Carswell, P.; Bell, R.; Bell, M.; Nascimento, D.P.; Pereira, L.S.M. and Vardon, P. (2012). Physical activity improves strength, balance and endurance in adults aged 40–65 years: a systematic review. *Journal of Physiotherapy.* Volume 58 (3): 145-156. **(23 papers identified for abstract screening)**

- Rauschenbach, C., Krumm, S., Thielgen, M., & Hertel, G. (2013). Age and work-related stress: a review and meta-analysis. *Journal of Managerial Psychology*. Volume *28*(7/8), 781-804. **(31 papers identified for abstract screening)**

- Crawford, J. O.; Graveling, R. A.; Cowie, H. A. and Dixon, K. (2010). The health safety and health promotion needs of older workers. *Occupational Medicine*. Volume *60*(3): 184-192. **(2 papers identified for abstract screening**)

- Gibson, E. A. (2014). Progress towards Healthy Ageing in Europe: to promote active healthy lifestyles in 45-68 year olds through workplace,

rather than traditional health-related settings. *Working with Older People: Community Care Policy & Practice*. Volume *18*(2): 51-57. **(22 papers identified for abstract screening)**

Stage 3) Full-text articles assessed for eligibility:

1. McDermott, H.J.; Kazi, A.; Munir, F. and Haslam, C. (2010) Developing occupational health services for active age management. *Occupational Medicine.* Volume 60: 193-204.

2. Delloiacono, N. (2015). Musculoskeletal safety for older adults in the workplace. *Workplace Health & Safety.* Volume 63 (2): 48-53.

3. Ferreira, M. L.; Sherrington, C.; Smith, K.; Carswell, P.; Bell, R.; Bell, M.; Nascimento, D.P.; Pereira, L.S.M. and Vardon, P. (2012). Physical activity improves strength, balance and endurance in adults aged 40–65 years: a systematic review. *Journal of Physiotherapy.* Volume 58 (3): 145-156.

4. Rauschenbach, C.; Krumm, S.; Thielgen, M. and Hertel, G. (2013). Age and work-related stress: a review and meta-analysis. *Journal of Managerial Psychology*. Volume *28*(7/8), 781-804.

5. Crawford, J. O.; Graveling, R. A.; Cowie, H. A. and Dixon, K. (2010). The health safety and health promotion needs of older workers. *Occupational Medicine*. Volume *60*(3): 184-192.

6. Gibson, E. A. (2014). Progress towards Healthy Ageing in Europe: to promote active healthy lifestyles in 45-68 year olds through workplace, rather than traditional health-related settings. *Working with Older People: Community Care Policy & Practice*. Volume *18*(2): 51-57.

7. Algarni, F.S.; Gross, D.P.; Senthilselvain, A. and Battie, M.C. (2015). Ageing workers with work-related musculoskeletal injuries. *Occupational Medicine.* Volume 65 (3): 229-237.

8. Biquand, S. and Heddad, N. (2012). An ergonomic approach to improve work conditions of older employees in social housing. *Work: A Journal of Prevention, Assessment and Rehabilitation*. Volume *41*(1, Number 1 Supplement 1), 383-387.

9. Chan, C. B.; Ryan, D. A. and Tudor-Locke, C. (2004). Health benefits of a pedometer-based physical activity intervention in sedentary workers *Preventive Medicine*. Volume 39(6), 1215-1222

10. Strijk, J. E.; Proper, K. I.; van der Beek, A. J. and van Mechelen, W. (2011). A process evaluation of a worksite vitality intervention among ageing hospital workers. *The International Journal of Behavioral Nutrition and Physical Activity.*

11. Evans, D. M.; Conte, K.; Gilroy, M.; Marvin, T.; Theysohn, H. and Fisher, G. (2008). Occupational therapy – Meeting the needs of older adult workers? *Work, 31*. Volume 1: 73-82.

12. Mair, J. L.; Boreham, C. A.; Ditroilo, M.; McKeown, D.; Lowery, M. M.; Caulfield, B. and De Vito, G. (2014). Benefits of a worksite or home-based bench stepping intervention for sedentary middle-aged adults - a pilot study. *Clinical Physiology and Functional Imaging*. Volume *34*(1):10-17.

13. Naumanen, P. (2006). The health promotion model as assessed by ageing workers. *Journal of Clinical Nursing.* Volume 15: 219-266.

14. Siukola, A.; Virtanen, P.; Huhtala, H. and Nygard, C-H. (2011). Absenteeism following workplace interventions for older food industry workers. *Occupational Medicine.* Volume 61: 583-585.

15. Cheung, F.; Wu, A.M.S. (2012). An investigation of predictors of successful aging in the workplace among Honk Kong Chinese older workers. *International Psychogeriatrics.* Volume 24(3): 449-464.

16. Hughes, S.L.; Seymour, R.B.; Campbell, R.T.; Shaw, J.W.; Fabiyi, C. and Sokas, R. (2011). Comparison of two health-promotion programs for older workers. *American Journal of Public Health.* Volume 101 (5): 883-890.

17. Koolhaas, W.; Groothoff, J.W.; de Boer, M.R.; van der Klink, J.J. and Brouwer, S. (2015). Effectiveness of a problem-solving based intervention to prolong the working life of ageing workers. *BMC Public Health.* Volume 15:76.

18. Tonelli, S., Culp, K., & Donham, K. (2014). Work-related musculoskeletal disorders in senior farmers: Safety and health considerations. *Workplace health & safety*. Volume *62*(8): 333.

19. Stevens-Roseman, E.S. (2009). Older mentors for newer workers: impact of a worker-driven intervention in later life satisfaction. *Journal of Workplace Behavioural Health.* Volume 24: 419-426.

20. Mackay, M. G. (2011). Walking to wellness in an ageing sedentary university community: design, method and protocol. *Contemporary Clinical Trials.* Volume 32(2): 273-279.

21. Cirla, A.M.; Fazioli, R.; Santini, F. and Cirla, P.E. (2005). Prevention of musculo-skeletal disorders in sedentary ageing workers by ergomotricity. Int Cong Ser. Volume 1280:166–171.

22. Andersson-Fele´ L. (2005) Age related work load—a work environment intervention with a life course perspective. Int Cong Ser. Volume 1280:341–346.

23. Armitage CJ. (2007) Efficacy of a brief worksite intervention to reduce smoking: the roles of behavioural and implementation intentions. *Journal of Occupational Health Psychology*. Volume 12:37.

24. de Boer, A.G.; van Beek, J.C.; Durinck, J.; Verbeek, J.H. and van Dijk FJ. (2004) An occupational health intervention programme for workers at risk for early retirement; a randomised controlled trial. Occup Environ Med. Volume 61:924–929.

25. Atlantis E.; Chow C.M.; Kirby A. and Fiatarone Singh MA. (2006). Worksite intervention effects on physical health: a randomized controlled trial. *Health Promotion International*. Volume 21:91–200.

26. Costa, G.; Sartori, S.; Bertoldo, B. et al. (2005). Work ability in health care workers. *Int Cong Ser 2005*; 1280:264–269.

27. Graham, A.L.; Cobb, N.K.; Raymond, L.; Sill, S. and Young, J. (2007). Effectiveness of an internet-based worksite smoking cessation intervention at 12 months. *J Occup Environ Med*. Volume 49: 821-828.

28. Ha¨rma¨, M.; Tarja, H.; Irja, K. et al. (2006). A controlled intervention
study on the effects of a very rapidly forward rotating shift
system on sleep-wakefulness and well-being among young
and elderly shift workers. Int J Psychophysiol. Volume 59:70–79.

29. May, D.R.; Reed, K.; Schwoerer, C.E. and Potter P. (2004). Ergonomic office design and aging: a quasi-experimental field study of employee reactions to an ergonomics intervention program. *Journal of Occupational Health Psychology*. Volume 2 (9):123–135.

30. Skoglund, B. and Skoglund, C. (2005). Can age management promote
work ability among older workers? *Int Cong Ser*. Volume 1280:392–396.

31. Williams, A.E.; Vogt, T.M.; Stevens, V.J. et al. (2007). Work, Weight, and Wellness: the 3W Program: a worksite obesity prevention
and intervention trial. *Obesity*. Volume 15:16S–26S.

Stage 4) The four articles included for qualitative review and synthesis were as follows:

- Strijk, J. E.; Proper, K. I.; van der Beek, A. J. & van Mechelen, W. (2011). A process evaluation of a worksite vitality intervention among ageing hospital workers. *The International Journal of Behavioral Nutrition and Physical Activity.*

- Stevens-Roseman, E.S. (2009). Older mentors for newer workers: impact of a worker-driven intervention in later life satisfaction. *Journal of Workplace Behavioural Health.* Volume 24: 419-426.

- Koolhaas, W.; Groothoff, J.W.; de Boer, M.R.; van der Klink, J.J. and Brouwer, S. (2015). Effectiveness of a problem-solving based intervention to prolong the working life of ageing workers. *BMC Public Health.* Volume 15:76.

- Hughes, S.L.; Seymour, R.B.; Campbell, R.T.; Shaw, J.W.; Fabiyi, C. and Sokas, R. (2011). Comparison of two health-promotion programs for older workers. *American Journal of Public Health.* Volume 101 (5): 883-890.

Appendix 2. b.2.

The following are 39 papers that did not fulfil the inclusion criteria for the review:

1) **Algarni, F.S.; Gross, D.P.; Senthilselvain, A. and Battie, M.C. (2015). Ageing workers with work-related musculoskeletal injuries. *Occupational Medicine.* Volume 65 (3): 229-237:** The study aimed to report health related characteristics of employees with musculoskeletal problems. Although the study referred to health status and participants coping strategies, it was excluded as it was a comparison study and not a trial study. Results were also retrieved from three cohorts: younger (25-54 years), older (55-64 years) and near retirement employees (over 65 years) and therefore not exclusive to older employees (over 40 years).

2) **Andersson-Fele´ L. (2005) Age related work load—a work environment intervention with a life course perspective. Int Cong Ser. Volume 1280:341–346:** The paper measured the effects of a primary stage workplace intervention focusing on the impact of the work environment on job satisfaction and workload. The paper was excluded from the review, as details on participant's age were not included.

3) **Armitage, C.J. Efficacy of a brief worksite intervention to reduce smoking: the roles of behavioral and implementation intentions. J Occup Health Psychol 2007; 12:37:** The paper reports the effects of a primary stage RCT brief workplace smoking cessation intervention assessing motivations to quit. The trial was not included as participants ranged between 18 to 85 years.

4) **Atlantis, E.; Chow, C.M.; Kirby, A. and Fiatarone, Singh M.A. (2006).**

   Worksite intervention effects on physical health: a randomized controlled trial. *Health Promotion International*. Volume 21:91–200: The paper aimed to measure the effects of a primary stage worksite intervention on physical health and lifestyle changes, which included both physical activities and worksite counseling support. The paper was not included in the review as participants under 40 years also took part.

5) **Beitman, C.L.; Johnson, J.L.; Clark, A.L.; Highsmith, S.R.; Burgess, A.L.; Minor, M.C. and Stir, A.L. (2004). Care giver role strain of older workers. *Work.* Volume 22: 99-106:** Caregiver role strain of older workers. Work 22 99-106: The paper did not review a trial but only provided information on stressors faced by ageing carers.

6) **Bigby (2014). An effective program design to support older workers with intellectual disability to participate individually in community groups. *Journal of Policy & Practice in Intellectual Disabilities.* Volume 11 (2): 117-127:** The paper aimed to assess the effectiveness of a Transition-To-Retirement (TTR) program developed for employees with intellectual disabilities whom were aged over 46 years. The paper was excluded as its focus was on the wellbeing of employees transitioning into retirement and not on long-term working life.

7) **Biquand, S. and Heddad, N. (2012). An ergonomic approach to improve work conditions of older employees in social housing. *Work: A Journal of Prevention, Assessment and Rehabilitation*. Volume *41*(1, Number 1 Supplement 1), 383-387:** The paper

describes the origins and content of an assessment tool used to improve the working lives of ageing care takers overseeing residencies in France. Although the paper focused on ageing workers it was excluded as it did not assess the efficacy of a workplace intervention aimed at improving the health of this cohort. The paper refers to psychological wellbeing but at minimal levels, (i.e. good relationships with neighbors, addressing nuisance neighbors).

8) **Chan, C. B.; Ryan, D. A. and Tudor-Locke, C. (2004). Health benefits of a pedometer-based physical activity intervention in sedentary workers *Preventive Medicine*. Volume 39(6), 1215-1222:** The study aimed to assess the effectiveness of a pedometer-based health intervention on 106 sedentary workers. The study reported worker's physical activity levels, body mass index levels (BMI), waist girth, resting heart rate and blood pressure at baseline and after the intervention at 12 weeks. The study was excluded as it did not assess psychological health nor report any psychological changes due to the intervention. In addition, the study was not exclusive to older workers.

9) **Cheung, F. and Wu, A.M.S. (2012). An investigation of predictors of successful aging in the workplace among Honk Kong Chinese older workers. *International Psychogeriatrics.* Volume 24(3): 449-464:** The paper was excluded as its focus was to examine factors which contributed to successful aging in the workplace and not investigating the effectiveness of an intervention. Areas examined were adaptability, health, occupational growth, individuals' coping strategies and work-related stressors. Results were retrieved through a self-

administered questionnaire to 242 participants aged over 40 years.

10) **Cirla, A.M.; Fazioli, R.; Santini, F. and Cirla, P.E. (2005). Prevention of musculo-skeletal disorders in sedentary ageing workers by**
ergomotricity. Int Cong Ser. Volume 1280:166–171: The paper measured primary stage physical workplace health intervention for ageing workers. The paper was not included as physical health outcomes were only measured.

11) **Crawford, J. O.; Graveling, R. A.; Cowie, H. A. and Dixon, K. (2010). The health safety and health promotion needs of older workers. *Occupational Medicine*. Volume *60*(3): 184-192:** The paper aimed to review current research on health, safety and health promotion of older workers. The review identified two health promotion trials. However, these were excluded as both studies were conducted in 1999 and therefore before the review time-line (January 2004-April 2015).

12) **Costa, G.; Sartori, S.; Bertoldo, B. et al. (2005). Work ability in health**
care workers. *Int Cong Ser 2005*; 1280:264–269: The paper introduced a primary stage health surveillance intervention measuring the functional capacity and workability of healthcare staff. Although the paper reports outcomes specifically for older workers, the paper was not included as staff ranged from 23 to 65 years.

13) **Dale, L. (2004). Challenges for the older academic in balancing work and wellness. *Work.* Volume 22: 89-97:** This paper measured risks for developing musculoskeletal disorders amongst older academics and suggesting primary stage bespoke interventions. The paper was not included, as data was collected through interviews and observations.

14) **de Boer, A.G.; van Beek, J.C.; Durinck, J.; Verbeek, J.H. and van Dijk, F.J. (2004) An occupational health intervention programme for workers at risk for early retirement; a randomised controlled trial. Occup Environ Med. Volume 61:924–929:** The paper evaluated the effectiveness of an occupational health based intervention on workers aged 50 years and above. The paper was excluded as it was a predominantly occupational health based study and had already been evaluated by McDermott et al (2011). Contact was made with the author to see whether there were recent psychologically based studies in this area that could be reviewed. Unfortunately, the author was unable to provide further work.

15) **Delloiacono, N. (2015). Musculoskeletal safety for older adults in the workplace. *Workplace Health & Safety.* Volume 63 (2): 48-53:** The paper was excluded as it provided a general critical analysis of current research investigating physical and cognitive changes and their impact on safety. The study concluded with best practice evidence of occupational health nurses. The reference list of the paper was investigated for possible studies that would meet the inclusion criteria. The investigation of the reference list provided no fruition.

16) **Evans, D. M.; Conte, K.; Gilroy, M.; Marvin, T.; Theysohn, H. and Fisher, G. (2008). Occupational therapy – Meeting the needs of older adult workers? *Work, 31*. Volume 1: 73-82:** The paper was excluded as it was a mixed methods design aimed to explore why ageing workers continued to work beyond retirement, Occupational Therapists' current awareness of ageing workers needs and what potential OT based interventions could assist this cohort.

17) **Ferreira, M. L.; Sherrington, C.; Smith, K.; Carswell, P.; Bell, R.; Bell, M.; Nascimento, D.P.; Pereira, L.S.M. and Vardon, P. (2012). Physical activity improves strength, balance and endurance in adults aged 40–65 years: a systematic review. *Journal of Physiotherapy.* Volume 58 (3): 145-156:** The paper was excluded as it was a systematic review. Studies reviewed by the authors were identified for further scrutiny but did not meet the inclusion criteria given both trial outcome measures and results were exclusive based on physical health outcomes and did not include psychological affects and/or apparatus.

18) **Gibson, E. A. (2014). Progress towards Healthy Ageing in Europe: to promote active healthy lifestyles in 45-68 year olds through workplace, rather than traditional health-related settings. *Working with Older People: Community Care Policy & Practice*. Volume *18*(2): 51-57:** The paper was excluded as it was a qualitative design aimed at gaining the ageing workers viewpoints in workplace health promotion.

19) **Graham, A.L.; Cobb, N.K.; Raymond, L.; Sill, S. and Young, J. (2007). Effectiveness of an internet-based worksite smoking cessation intervention at 12 months. *J Occup Environ Med*. Volume 49: 821-828:** The paper measured the effects of a primary stage workplace self-reported Internet based smoking cessation programme *QuitNET.* The trial was excluded as participants derived from all age groups.

20) **Hansen, V.; Pitt, S.W.; Honeyman, P. and Barclay, L. (2013). Prolonging a sustainable working life among older rural GP's: Solutions from the horse's mouth. *Rural and Remote Health (online).* Volume 13: 2369:** The paper aimed to explore retention factors for GP's aged over 45 years in rural Australia. The study was excluded as it did not assess the efficacy of an intervention and used Thematic Analysis.

21) **Ha¨rma¨, M.; Tarja, H.; Irja, K. et al. (2006). A controlled intervention**
study on the effects of a very rapidly forward rotating shift system on sleep-wakefulness and well-being among young and elderly shift workers. Int J Psychophysiol. Volume 59:70–79: The paper reviewed the effects of a primary stage shift system on sleep-wakefulness and wellbeing amongst staff. Although the paper distinguishes a participant group of older workers aged 45-61 years, the trial was not included as younger participants, (24-44 years), were included.

22) **Hong, J. and Lee, K. (2012). The ageing work force in Korea. International Archives of Occupational and Environmental Health. Volume 85: 253-260:** The paper gives guidance on how to support an ageing population. The paper did not measure the effects of interventions.

23) **Mackay, M. G. (2011). Walking to wellness in an ageing sedentary university community: design, method and protocol. *Contemporary Clinical Trials.* Volume 32(2): 273-279:** The protocol suggests the design of a primary stage intervention measuring active walking in ageing academic staff. Contact was made with the author whom was unable to release full results at this time.

24) **Mair, J. L.; Boreham, C. A.; Ditroilo, M.; McKeown, D.; Lowery, M. M.; Caulfield, B. and De Vito, G. (2014). Benefits of a worksite or home-based bench stepping intervention for sedentary middle-aged adults - a pilot study. *Clinical Physiology and Functional Imaging*. Volume *34*(1):10-17:** Although the paper assessed the effectiveness of a worksite health intervention on sedentary employees aged between 55-64 years, it was excluded as outcome measures used and results reported were exclusively based on physically health.

25) **May, D.R.; Reed, K.; Schwoerer, C.E. and Potter, P. (2004). Ergonomic office design and aging: a quasi-experimental field study of employee reactions to an ergonomics intervention program. *Journal of Occupational Health Psychology*. Volume 2 (9):123–135:** This quasi-experimental study measured the effects of a primary stage office ergonomic intervention on employee's physical health. The paper was not included as participant's age ranged from 21 to 61 years, the design was of an ergonomic nature only and outcomes measured were of physical health.

26) **McCluskey, S. (2013). Serena McCluskey: Workplace intervention can impact health and wellbeing. *Employee Benefits*, 8:** The paper was a general article on the benefits of

workplace health interventions. The paper did not provide data on the effects of interventions.

27) **McDermott, H.J.; Kazi, A.; Munir, F. and Haslam, C. (2010) Developing occupational health services for active age management. *Occupational Medicine.* Volume 60: 193-204:** This paper was excluded as it consisted of an Occupational Health review of workplace interventions for ageing workers rather than a single intervention study. Although not included, the paper itself was used to influence the current systematic review via future recommendations, whilst studies reviewed in the above paper were further investigated during abstract screenings.

28) **McDonald, G.; Mohan, S.; Jackson, D.; Vickers, M. H. and Wilkes, L. (2010). Continuing connections: the experiences of retired and senior working nurse mentors. *Journal of clinical nursing*. Volume 19:23-24:** The study was excluded as participants also included nurses that had retired from their roles. As such the intervention investigated was not a primary stage intervention aimed at the ageing worker prior to retirement.

29) **Mezuk, B.; Bohnert, A.S.B.; Ratliff, S. and Zinn, K. (2011). Job strain, depressive symptoms and drinking behaviour among older adults: Results from the Health and Retirement Study. *The Journals of Gerontology. Series B. Psychological and Social Sciences.* Volume 66 (4): 426-434:** The paper did not provide data on the effects of an intervention but focused on the

relationship between job strain, mental health, depression and alcohol in older workers.

30) **Naumanen, P. (2006). The health promotion model as assessed by ageing workers. *Journal of Clinical Nursing.* Volume 15: 219-266:** Although the study assessed the effectiveness of the Health Promotion Project of Ageing for older workers, the study was excluded as it was a qualitative analysis of interviews with occupational healthcare professionals involved in the project.

31) **Potočnik, K. and Sonnentag, S. (2013). A longitudinal study of well-being in older workers and retirees: The role of engaging in different types of activities. *Journal of Occupational and Organizational Psychology*. Volume *86*(4): 497-521:** The study examined the effects of seven different activities, (e.g. community and religious based activities), on depression and quality of life for older workers and retirees. Although the study aimed to test the efficacy of activities on psychological health, it was excluded as it did not report the effectiveness of workplace health interventions whilst the participant pool included retirees.

32) **Rauschenbach, C.; Krumm, S.; Thielgen, M. and Hertel, G. (2013). Age and work-related stress: a review and meta-analysis. *Journal of Managerial Psychology*. Volume *28*(7/8), 781-804:** The paper aimed to address age differences in work-related stress amongst employees across the working life span. The paper was excluded as it was a literature review and meta-analysis of age indicators of work-related stress and did not refer to health interventions specifically for older workers. However, an investigation of the reference list identified a

paper (i.e. Baltes and Finkelstein, 2011), eligible for further scrutiny.

33) **Shaw, W. S.; Besen, E.; Pransky, G.; Boot, C. L.; Nicholas, M. K., McLellan, R. K. and Tveito, T. H. (2014). Manage at work: a randomized, controlled trial of a self-management group intervention to overcome workplace challenges associated with chronic physical health conditions. *BMC Public Health*. Volume *14*(1): 1135-1155:** The paper reported the effects of a RCT self-management group intervention to overcome workplace obstacles amongst employees with chronic physical health conditions. Although the paper referred to chronic conditions in ageing workers, the trial included participants from 18 years.

34) **Siukola, A.; Virtanen, P.; Huhtala, H. and Nygard, C-H. (2011). Absenteeism following workplace interventions for older food industry workers. *Occupational Medicine.* Volume 61: 583-585:** The paper reported the effects of a primary stage physical health assessment aimed at ageing workers in Finland, with the goal of reducing sick leave and early retirement. The paper was excluded as psychological interventions and/or psychological outcomes were not included.

35) **Skoglund, B. and Skoglund, C. (2005). Can age management promote**

work ability among older workers? *Int Cong Ser*. Volume 1280:392–396: The paper reported findings from a secondary stage mentoring intervention aimed at middle managers mentoring ageing staff with the goal of reducing long term sick

leave and/or early retirement. The paper did not provide raw data, and some analyses were undertaken qualitatively, (p.394).

36) **Tan, E. J.; Rebok, G. W.; Qilu, Y.; Frangakis, C. E.; Carlson, M. C.; Tao, W. & Fried, L. P. (2009). The Long-Term Relationship Between High-Intensity Volunteering and Physical Activity in Older African American Women.** ***Journals of Gerontology Series B: Psychological Sciences & Social Sciences*****. Volume *64B* (2), 304-311:** The study aimed to assess the effectiveness of the Experience Corps Program, an intervention aimed at promoting the academic abilities of school children and the health of elderly female school volunteers. Although the intervention was designed to increase both physical and psychological health in older aged volunteers the study was excluded as its focus was exclusively on the physical health element of the intervention.

37) **Tonelli, S.; Culp, K. and Donham, K. (2014). Work-related musculoskeletal disorders in senior farmers: Safety and health considerations.** ***Workplace health & safety*****. Volume *62*(8): 333:** Although the paper addressed the high risks of musculoskeletal disorders in senior farmers, it was excluded as the aim was to explain reasons for such risks and how occupational therapeutic support could promote the health and safety of ageing farmers.

38) **van Holland, B.; de Boer, M.; Brouwer, S.; Soer, R. and Reneman, M. (2012). Sustained employability of workers in a production environment: Design of a stepped wedge trial to evaluate effectiveness and cost-benefit of the POST program.** ***BMC Public Health.*** **Volume 12 (1): 1003:** The study protocol suggested the assessment of a workplace health intervention called POSE (Promotion of Sustained Employability) aimed at improving health and employment status. Although this paper

refers to the increase in aging workers and the need to improve their health, it was excluded as its aim was to assess the usefulness of POSE for all employees and not specifically older workers.

39) **Williams A.E.; Vogt T.M.; Stevens V.J. et al. (2007). Work, Weight, and Wellness: the 3W Program: a worksite obesity prevention**

and intervention trial. *Obesity*. Volume 15:16S–26S: The paper reviewed the effects of a large scale RCT primary stage intervention measuring weight loss and wellbeing amongst hotel staff in Oahu, Hawaii. The paper was not included as the intervention included all ages.

Appendix 2. b.3.

Systematic review data extraction tool:

1. Title
2. Author
3. Date
4. Correspondence email
5. Country
6. Aim
7. Study design
8. Theory used for the design
9. Participants (demographics, method of allocation)
10. Participant selection criteria
11. Sample size (and justification of sample size)
12. Randomisation process if used and justification if not used
13. Intervention format
14. Duration from base line
15. Outcome measures
16. Results
17. Attrition
18. Limitations
19. Strengths

Appendix 2. b.4.

Systematic review data extraction questions

1) Was a full description of the intervention given?

2) Was a theoretical framework used to design the intervention reported?

3) Were the participant selection criteria specified?

4) Was choice of design clearly explained?

5) Was the sample size justified? (e.g. established by power analysis?)

6) Were possible confounding variables investigated, (e.g. older employees participating in another health based intervention, diagnosed critical illnesses)?

7) Were the outcome measures used relevant to the study?

8) Were results explained clearly?

9) Were attrition rates reported?

Appendix 2. b.5. Detailed extracted data of each study reviewed (Table D.3.)

Hughes S.L. et al. (2011)	Participants & Design	Data Collection	Outcomes
USA **Intervention:** **RealAge-** Online trial providing teaching modules in risk behaviour reduction. Accessible at home and work **COACH-**Combination of online risk behaviour teaching modules and personal behaviour change coaching with a facilitator trained in Motivational Interviewing. Online access at both home and work. 1-1 support consisted of one face-to-face assessment and subsequent email and telephone support. **Time frame:** 0-12 months **Work setting & job types:** University campus Sedentary and active roles; combination of skilled and unskilled.	**Design:** Randomised controlled trial **Participant total:** N= 423 COACH= 150 RealAge= 135 **Inclusion criteria:** <40 years and able to access the internet at home. **Exclusion criteria:** Faculty staff members and staff under 40 years old. **Age:** 40-68 years; mean= 51 years **Gender:** 82% female and 18% male **Control:** Printed health information. **Power:** Yes **Blinded:** No **Attrition/drop out**: COACH = 13 (9%) RealAge= 21 (16%) **Confounding variables assessed**: Yes	**Descriptive data at baseline** **Diet:** National cancer institute's percentage energy from fat screener questionnaire (1) National cancer institute all-day fruit and vegetable screener questionnaire (2). **Physical activity**: Behavioural risk factor surveillance system (3) **Smoking:** ATS-18 (4) **Stress:** PSS (5) 4-item scale by Lorig et al (6) and Brief COPE questionnaire (7) **Objective measures:** Body mass index (BMI) Waist circumference (WC) Height Weight	**Diet:** **Percentage energy from fat** RealAge: Non-significant COACH: p= 0.027 at 12 months **Fruit consumption** RealAge: Non-significant COACH: p=0.013 at 6 months p<. .001 at 12 months **Physical activity:** RealAge: Non-significant COACH: Moderate activity p= 0.05 at 6 months and p= 0.013 at 12 months **Smoking cessation achieved:** RealAge- 4 of 16 smokers COACH- 2 of 16 smokers **Stress:** RealAge-Non-significant COACH- Non-significant **BMI, weight and WC:** RealAge- WC (p=0.05 at 6 months and p= 0.018 at 12 months) COACH- Non-significant

Koolhaas W. et al. (2015)	Participants & Design	Data Collection	Outcomes
Netherlands **Intervention:** Support provided by departmental supervisors whom received training on behavioural change and goal setting **Duration:** Two supervisor-training workshops and 1-1 support from supervisors to staff thereafter. Frequency of support depended on staff's needs. **Time frame:** 0-12 months **Work setting**: Paediatric and Intensive care units at an academic medical centre and University departments. **Work setting & job type:** mixture of sedentary and physical demanding work; skilled and unskilled roles	**Design:** Quasi- experimental trial **Participant total** N=125 **Inclusion criteria:** Supervisors and their departments with majority staff <45 years' old **Exclusion criteria:** Departments participating in other interventions; planned reorganisation; participants on sick leave for over one year; participants close to retirement. **Age:** <45 years; mean age= 52.4 (SD 4.9) **Gender**: Female= 100; male= 25 **Control:** Standardised work appraisal **Power:** None reported **Blinded:** Only for workers and not supervisors **Attrition/drop out:** 44% of participants **Confounding variables assessed:** Yes	**Descriptive data at baseline** **Primary outcomes** **Work ability:** Work Ability Index (WAI) (8) **Vitality:** Vitality scale from the SF12 (9a and 9b) **Productivity:** Quantity scale of the Quality and Quantity measure (QQ) (10) **Secondary outcomes** **Fatigue:** 8 item subscales from the Checklist of Individual Strength (11) **Psychosocial work characteristics:** Job Content Questionnaire (12) **Perceived work attitude:** Dutch language version of the Work Involvement Scale (13) **Self-efficacy:** Dutch version of the General Self-Efficacy Scale (14) **Work engagement:** Mean scores from the Dutch Utrecht Work Engagement Scale (15)	**Primary outcomes** **Productivity:** Non-significant (OR= 0.10, 95% CI 0.23-3.00). **Vitality:** Adverse effects (OR= 0.10, 95% CI 0.02- 0.46) **Work ability:** Adverse effects (B= -1.33, 95% CI – 2.45 to – 0.20). **Secondary outcomes** **Perceived work attitude:** Significant (B= 5.29, 95% CI-9.59 to – 0.99) **Self-efficacy:** Significant (B=1.45, 95% CI 0.74 to 2.48) **Psychosocial work characteristics:** Significant (Skill discretion subscale at B= 1.78, 95% CI 0.74 to 2.83) **Fatigue:** Non-significant **Work engagement:** Non-significant

Steven-Roseman E.S. (2009)	Participants & Design	Data Collection	Outcomes
USA **Intervention:** Mentoring to younger staff from ageing employees trained in behavioural change and goal setting **Time frame:** 0-6 months **Work setting & job type:** Non-profit service community organisation Job types: not stated	**Design:** Randomised trial per participant sign-in sheet **Participant total:** N=22 **Inclusion criteria:** Full-time workers <55 years' old **Exclusion criteria:** Part-time workers and all > 55 years **Age:** 55-75 years **Gender:** Female=21 Male= 1 **Control:** Standard support **Power:** No **Attrition/drop out:** not stated **Blinded:** No **Confounding variables assessed:** No	**Descriptive data at baseline** **Life satisfaction questionnaire*** **Workplace retention questionnaire*** *(The report does not indicate whether the questionnaires were in-house design or pre-existing standardised tools. Contact was attempted with the author to clarify, but with no success).	**Life satisfaction:** Significant (mean= 15.7; SD= 1.34; p< 0.01). **Workplace retention:** Non-significant

Chen M-M et al. (2014)	Participants & Design	Data Collection	Outcomes
Taiwan **Intervention:** Two-phase workshops on diet, physical activity, time-use and stress management alongside individual support on risk behaviours Workshops were run by the researchers, occupational nurse and later user led **Time frame:** 0-24 weeks **Work setting & job type:** small manufacturing businesses; mixture of sedentary and physical work; skilled and unskilled roles	**Design:** Quasi-experiment **Participant total:** N= 108 **Inclusion criteria:** Full-time workers <50 years' old Exclusion criteria: Part-time workers and all >50 years **Age:** Intervention group mean age= 54.5 (SD 3.7) **Gender:** Female= 59 Male= 49 **Control**: Allowed to participate in activities covering basic health knowledge **Power calculation**: a=0.05 **Blinded:** Not possible due to shift patterns **Confounder variables assessed:** Yes **Attrition/drop out:** 9 (8%)	**Descriptive data at baseline** **Diet, physical activity, time-use and stress:** In house questionnaire based upon the Taiwan Longitudinal Study on Ageing (1998*). *(Reference not provided) **Physiological measures:** Weight Waist circumference (WC) BMI Blood pressure (BP) **Biochemical markers:** Total Cholesterol (TC) Low-density cholesterols (LDL) High-density cholesterols (HDL) Triglyceride (TG) Blood sugars via glycosylated haemoglobin (HbA1c)	**Diet:** Non-significant **Physical activity:** Significant (p<0.001) **Time-use:** Not reported **Stress:** Not reported **Weight:** p=0.026 **WC:** p<0.001 **BMI:** p= 0.006 **BP:** Non-significant **LDL:** Non-significant **HbA1c:** Non-significant **TC*:** I= p<0.05; R= p<0.01 **HDL*:** R= p<0.05 **TG*:** I= p<0.05; R= p<0.05 *Results from participants with known metabolic disorders N=99 I= intervention group; R= reference group

Strijk J. et al. (2012)	Participants & Design	Data Collection	Outcomes
Netherlands **Intervention:** Vital@Work • Weekly yoga, fitness and aerobic classes with fruit provided • Three 1-1 personal vitality coaching sessions on goal setting and problem solving **Provider:** Yoga instructor, Fitness instructor (i.e. PVC) assisting in goal setting **Time frame:** 0-6 months **Work setting & job type:** Two academic hospitals. Physically demanding skilled work	**Design:** randomised controlled trial **Total participants:** N= 730 **Inclusion criteria:** Working <16 hours per week, no risk of adverse health effects from participating in physical activity **Exclusion criteria:** Working >16 hours per week **Age:** <45 years **Gender:** Intervention Female= 75% Male= 25% Control Female= 76% Male= 24% **Blinded:** Data Analyst **Confounding variables assessed**: yes **Control:** Printed basic health information **Power**= 0.9 Attrition/drop-out: 155 (17%)	**Descriptive data at baseline** **Physical activity:** SQUASH questionnaire (16): accelerometer rates over 7 days for a minimum of 10 hours per day (17a, 17b and 17c) **Fruit intake**: Short Fruit and Vegetable Questionnaire (18) **Aerobic capacity:** (V02MAX)- UKK 2km Walk Test (19a and 19b) **Mental health:** Mental health scale of the RAND-36 general health questionnaire (20) **Need for recovery from work (**NFR): Dutch Questionnaire on the Experience and Evaluation of Work (VBBA) (21)	**Physical activity:** Significant (intervention= 75.3min/week Vs control= 35.1min/week) **Fruit intake:** Significant (intervention= +5.7 Vs control= + 2.7 pieces/week) **Aerobic capacity:** Non-significant **Mental health:** Non-significant **NFR:** Significant (intervention = -3.2 Vs control= 0.6 points)

Palumbo M.V. et al. (2012)	Participants & Design	Data Collection	Outcomes
USA **Intervention:** Tai Chi classes once per week for 45 minutes and home exercises at least 4 days per week for 10 minutes per session **Provider:** Tai Chi instructor **Time frame:** 0-15 weeks Theory behind the design: Revised health promotion model, (Pender, 1996) **Work setting & job type**: hospital nurses	**Design:** randomised controlled trial **Total participants:** N=14 **Inclusion criteria:** • <40 years' old • < 1 year in post • Involved in patient lifting • Able to attend the trial **Exclusion criteria:** • >40 years • >1 year in post **Age**: < 40 years **Gender**: Female **Control:** Invited to a tai chi class at the end of the trial **Power:** no **Blinded:** no **Confounding variables assessed:** no **Attrition/ drop-out:** 3 (21%)	**Descriptive data: Not provided** **General & mental health:** SF-36 Health Survey (22) **Stress:** Nursing Stress Scale (NSS) (23); Perceived Stress Scale (24) **Physical functioning:** sit-and-reach test (25); Isokinetic force dynamometer (26); functional reach test (27); Musculoskeletal Questionnaire (28) **Work productivity:** Work Limitations Questionnaire (WLQ) (29) **Absenteeism:** Unscheduled combined time off (CTO) from sickness, personal issues, stress etc. measured through Human Resource data **Work related injury:** reported by participants	**General & mental health:** Non-significant **Stress:** • Intervention= -20% Vs control= -8.5% via NSS • Intervention = -23% Vs control= -17.5% via PSS **Physical functioning:** Functional reach= (+0.8%; p<0.01), Sit-and-reach= (+6.4%) **Work productivity= (+** 3%; p=0.03) **Absenteeism:** Intervention= 0 days Control= 49 days **Work related injury:** None reported

Cook R.F. et al. (2015)	Participants & Design	Data Collection	Outcomes
U.S.A. **Intervention:** Web-based health promotion intervention, (HealthyPast50), based on Social Cognitive Theory (Bandura 1986) targeting employees 50 years and older. **Time frame:** 0-3 months **Work setting & job types:** US based offices of a global information technology company. Sedentary and active roles: non-stated	**Design:** Randomised controlled trial **Participant total:** N= 278 **Inclusion criteria:** Staff aged 50 years and over **Exclusion criteria:** Staff under 50 years old. **Age:** 50-69 years **Gender:** 90 females, 187 males, 1 prefer not to say **Control:** Waiting list to use the intervention after the study had been completed **Power:** yes **Blinded:** No **Attrition/drop out**: 39 participants (14%) **Confounding variables assessed**: yes	**Descriptive data at baseline** **Distress:** 15-item scale describing both physical and emotional distress (30) **Stress**: 12-item scale assessing coping behaviours during difficult situations and events. (31) **Diet:** 9-item scale assessing perceived benefits to eating a healthy diet. (32) **Barriers to healthy diet:** 8-item scale assessing perceived barriers to eating a healthy diet. (33) **Eating practises:** 10-item subscale that was part of the Weight Control Assessment scale, developed to measure the frequency which participants exercised control over their eating during a 30-day period. (34) **Overeating self-efficacy:** 15-item scale assessing confidence in resisting overeating in various situations. (35) **Planning healthy eating:** 2-item scale created for the study which assesses the efficacy of participants' diet plans (no reference provided) **Diet change self-efficacy:** 5-item scale assessing confidence in changing dietary practices. (36) **Weight (W)**	**Distress: non-significant** **Stress: non-significant** **Diet: non-significant** **Barriers to healthy diet: non-significant** **Eating practises: non-significant** **Overeating self-efficacy: non-significant** **Diet change self-efficacy: p= 0.048** **Planning healthy eating: p= 0.03** **Weight: not stated** **BMI: not stated** **Exercise habits: mild exercise improvement at p= 0.01** **Exercise self-efficacy: non-significant** **Self-efficacy for overcoming barriers to exercise: non-significant** **Exercise planning: non-significant** **Beliefs about aging: non-significant**

		Body mass index (BMI) **Exercise habits:** Godin Leisure-time Exercise Questionnaire (37) **Exercise self-efficacy:** 8-item assessing confidence in up-taking regular exercise (38) **Self-efficacy for overcoming barriers to exercise:** 13-item scale assessing participants' confidence in up-taking exercise under difficult circumstances. (39) **Exercise planning:** 2-item scale assessing the effectiveness of participant's exercise plans. (References not provided). **Beliefs about aging:** 5-item scale assessing participants' health attitudes towards ageing. (References not provided). **Tobacco use:** 7-tem assessment of possible tobacco use and habits. (References not provided).	**Tobacco use: insufficient number of tobacco users (N=16) to perform meaningful analyses.**

Rutanen R. et al. (2014)	Participants & Design	Data Collection	Outcomes
Finland **Intervention:** Physical exercise intervention aimed to improve work ability and daily strain among female employees with menopausal symptoms. **Time frame:** 0-24 weeks **Work setting & job types:** A mixture of jobs types based in the Pirkanmaa hospital district in Finland. Sedentary and active roles: mixture of sedentary and active roles	**Design:** Randomised controlled trial **Participant total:** N= 123 **Inclusion criteria:** Staff aged 40 years and over exhibiting menopausal symptoms **Exclusion criteria:** All female staff under 40 years old and female staff over 40 years of age with no menopausal symptoms or diagnosed with the menopause and receiving ongoing treatment **Age:** 40-62 years **Gender:** Females only **Control:** To keep physical activity habits as normal and attended with the intervention group health-related lectures **Power:** yes **Blinded:** No **Attrition/drop out**: 8 participants (7%) **Confounding variables assessed**: yes	**Descriptive data at baseline** **The Work Ability Index (WAI)** (40) **Mobile phone diary entries twice a day for each participant** (41) **In-house based questionnaires assessing physical strain, mental strain and mental resources** **Cardiorespiratory fitness (CRF):** CRF was assessed using the standardised **UKK** Walking Test measuring aerobic fitness for adults without illness or disability (42)	**WAI:** non-significant **Physical strain:** p=0.025 **Mental strain:** non-significant **Mental resources:** p<0.01 **CRF:** non-significant

Appendix 2. b.6. a (Table D.4.) Quality Check Scores Rater 1

		Hughes et al.	Koolhaas et al.	Steven-Roseman	Chen M-M et al	Strijk J et al	Palumbo MV et al	Rutanen R et al	Cook et al
Population	1.1	1	2	1	2	2	1	1	2
	1.2	1	0	0	1	1	0	1	2
	1.3	1	0	0	0	1	0	0	1
Method of allocation to intervention (or comparison)	2.1	2	0	0	1	2	0	2	1
	2.2	1	1	0	1	2	1	1	2
	2.3	2	0	0	1	2	NR	2	0
	2.4	1	1	0	0	1	NR	0	NA
	2.5	2	1	0	1	NR	0	0	NR
	2.6	2	2	0	0	2	0	0	NR
	2.7	1	0	1	0	2	NR	0	NR
	2.8	0	0	1	2	0	1	0	2
	2.9	N/A	N/A	N/A	N/A	NA	NA	NA	NA
	2.10	N/A	N/A	N/A	N/A	NA	1	NA	NA
Outcomes	3.1	1	1	0	1	1	1	1	1
	3.2	1	0	1	2	1	1	1	2
	3.3	1	0	0	1	2	2	1	1
	3.4	1	1	N/A	1	2	2	1	NR
	3.5	2	2	2	2	2	2	1	1
	3.6	2	0	1	0	NR	0	0	0
Analysis	4.1	2	2	1	2	2	0	1	1
	4.2	2	1	1	0	0	0	0	2
	4.3	2	1	0	1	2	0	NR	NR
	4.4	0	0	0	0	NR	0	NR	0
	4.5	0	0	0	1	1	0	1	1
	4.6	1	1	1	1	2	1	1	2
Summary	5.1	1	0	0	1	2	0	1	1
	5.2	1	0	0	1	1	0	0	1

KEY
2 = ++
1= +
0= -
NR = Not reported
NA = Not applicable

Appendix 2. b.6. b. (Table D.5.) Quality Check Scores Rater 2

		Hughes et al.	Koolhaas et al.	Steven-Roseman	Chen M-M et al	Strijk J et al	Palumbo MV et al	Rutanen R et al	Cook et al
Population	1.1	1	1	1	2	1	1	1	1
	1.2	1	1	0	1	1	0	1	1
	1.3	1	1	0	0	1	0	0	1
Method of allocation to intervention (or comparison)	2.1	1	0	0	1	2	0	1	1
	2.2	2	1	0	1	2	1	1	2
	2.3	1	0	0	1	2	0	1	0
	2.4	1	1	0	0	1	0	0	0
	2.5	1	1	0	1	0	0	0	0
	2.6	1	2	0	0	1	0	0	0
	2.7	0	0	1	0	2	0	0	0
	2.8	1	0	1	1	1	1	0	1
	2.9	0	0	0	0	0	0	0	0
	2.10	0	0	0	0	0	1	0	0
Outcomes	3.1	1	1	0	1	2	1	1	1
	3.2	1	1	1	1	1	1	1	2
	3.3	1	1	0	1	2	2	1	1
	3.4	1	1	1	1	2	2	1	1
	3.5	2	2	2	2	2	2	1	2
	3.6	2	2	1	0	1	0	0	1
Analysis	4.1	2	1	1	2	2	0	1	1
	4.2	1	1	1	0	0	0	1	1
	4.3	2	1	0	1	2	0	0	1
	4.4	1	1	1	1	1	0	1	1
	4.5	1	2	1	1	1	0	1	1
	4.6	1	2	1	1	2	1	1	2
Summary	5.1	1	1	0	1	2	0	1	1
	5.2	0	0	0	0	1	0	0	0

KEY
2 = ++
1= +
0= -
NR = Not reported
NA = Not applicable

Appendix 2. b.7.

Cohen's Kappa Value used to indicate agreement strength between the two raters as good.

Symmetric Measures

		Value	Asymptotic Standardized Error[a]	Approximate T[b]	Approximate Significance
Measure of Agreement	Kappa	**.644**	.044	13.208	.000
N of Valid Cases		216			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

The K value was interpreted as follows[14]:

Value of K	Strength of agreement
<0.20	Poor
0.21-0.40	Fair
0.41-0.60	Moderate
0.61-0.80	**Good**

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