Factors Contributing to Unexpected Retirement and Unemployment in Adults Over 50 Years Old in Ireland

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Abstract

Older adults are increasingly important to maintaining stable workforces. As such, factors contributing to early workforce exit must be identified. This study aimed to identify predictors of unexpected retirement and unemployment at older age, with respect to psychological constructs, resulting adverse behaviors, and health-related factors reflecting functional status. Data were extracted from The Irish Longitudinal Study on Ageing (TILDA) to predict unexpected retirement and unemployment in older adults in Ireland. Increasing age, increasing number of impairments in activities of daily living, and frailty status of "pre-frail/frail" (relative to non-frail) increased the likelihood of unexpected retirement; while greater numbers of physical limitations and "pre-frail/frail" status significantly predicted unemployment at older age. Pre-frail/frail status or reduced physical capability for everyday tasks may adversely affect older individuals' ability to obtain and/or maintain employment. These findings advance the current understanding of factors associated with unexpected retirement and unemployment at older ages. Findings may aid in identifying strategies to extend working life and to aid at-risk older adults, and may inform components of care on which to focus to minimize loss of function and mobility, and maintain independence, with aging.

Keywords

work, older adults, unexpected retirement, unemployment

Introduction and Literature Review

The global population is aging rapidly. In the Republic of Ireland, the population of individuals >65 years is expected to increase from 500,000 in 2011 to 850,000 in 2026 (Central Statistics Office, 2013). Similar worldwide trends are evident in regions of varying levels of development (Department of Economic and Social Affairs, Population Division, 2013). These trends are mirrored in the workplace; for example, in Ireland, the proportion of workers aged 50+ is expected to rise from 23% in 2011 to 30% to 33% in 2026 (Central Statistics Office, 2013). Consequently, societies are becoming increasingly dependent on older adults to maintain stable workforces. Individuals must also continue working later in life to develop sufficient financial retirement plans. However, various factors challenge older adults who want to continue working but are unable to, or who are forced to retire early with an inadequate retirement package. This may affect individuals' ability to support themselves financially postretirement compared with individuals who retire at their planned age.

There is an existing body of literature examining factors associated with retirement and other work outcomes in later life. The general focus has been placed on early retirement, as opposed to unexpected retirement or unemployment. Early retirement refers to retirement occurring before the state pension age, whereas unexpected retirement refers to retirement occurring earlier than previously planned. Previous work relating to early retirement has primarily focused on medical factors, such as actual or perceived health (Jebens, Medbø, Knutsen, Mamen, & Veiersted, 2014; Karpansalo, Manninen, Kauhanen, Lakka, & Salonen, 2004; Mein et al., 2000; Rice, Lang, Henley, & Melzer, 2011), obesity (Hopsu, Leppänen,

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Ranta, & Louhevaara, 2005), medications (Biefang, Potthoff, Bellach, & Buschmann-Steinhage, 1998), and medical conditions (Biefang et al., 1998; Siebert, Rothenbacher, Daniel, & Brenner, 2001). Employment has also been shown to decrease among women above 45 years of age as physical health and mental health decline (Pit & Byles, 2012). Other factors that have been examined with respect to early retirement include work-related psychological factors, such as job satisfaction (Biefang et al., 1998; Mein et al., 2000; Thorsen, Jensen, & Bjørner, 2016), job demands (Carr et al., 2016), and social conditions (Jebens et al., 2014); factors related to physical or organizational aspects of the job or workplace, such as monotony (Biefang et al., 1998), shift work (Biefang et al., 1998), physical work demands (Jebens et al., 2014; Lund, Iversen, & Poulsen, 2001), possibility for advancement (Thorsen et al., 2016), and predictability (Thorsen et al., 2016); and demographic or personal factors, such as age (Rice et al., 2011), sex (Rice et al., 2011), marital status (Lund et al., 2001), employment grade (Mein et al., 2000), and work ability (Hopsu et al., 2005). Similarly, education, marital status, race, citizenship status, presence of a labor union, and work sector have been shown to influence the risk of underemployment in older adults (Slack & Jensen, 2008), although literature relating to factors influencing unemployment or underemployment is less extensive than the body of work for early retirement. In addition, to our knowledge, no previous studies have investigated the factors influencing unexpected retirement. As such, research is warranted to extend our understanding of factors contributing to both unexpected retirement and unemployment in older age.

Furthermore, there remains a need to identify the influence of other individual factors. For example, no studies to our knowledge have examined the relationship between employment and psychological constructs such as fear of falling (FOF) and anxiety, or adverse behaviors associated with psychological constructs, such as activity limitation due to FOF (Lachman et al., 1998). Both FOF and anxiety affect balance and postural control in older adults (Brown, Polych, & Doan, 2006; Maki, Holliday, & Topper, 1991); FOF also affects walking in this population (Maki, 1997). Given previous findings regarding the influence of FOF and anxiety in older adults during basic balance and mobility tasks (i.e., standing and walking; Brown et al., 2006; Maki, 1997; Maki et al., 1991), and that activity limitation may result from FOF (Lachman et al., 1998), the influence of these constructs and of activity restriction may also extend to individuals' general ability to obtain employment and/or continue performing job tasks required in their occupation. However, this has yet to be determined. Additionally, although some medical factors have been examined in relation to employment, relationships between employment and health-related factors reflecting functional status, such as physical capabilities, perception of health, pain, and frailty status, have not been clearly elucidated. Finally, the interactions between the aforementioned psychological constructs, resulting adverse behaviors, and health-related factors warrant further investigation. Therefore, the purpose of this study was to explore the influence of psychological constructs (i.e., FOF and anxiety), resulting adverse behaviors (i.e., activity restriction due to FOF), and health-related factors reflecting functional status on both unexpected retirement and unemployment in adults over 50 years old in Ireland. As this study was exploratory in nature, no specific hypotheses were advanced.

Research Design

Participants

Data for this study were extracted from the first two waves of The Irish Longitudinal Study on Ageing (TILDA) survey (Wave 1: October 2009 to February 2011; Wave 2: April 2012 to January 2013; TILDA, 2010). The database aimed to improve the quantity and quality of data available regarding older people and aging in Ireland, addressing all aspects of daily life (Kenny et al., 2010). Inclusion criteria were residing in a household and >50 years old; while exclusion criteria were institutionalization, diagnoses of dementia, and inability to provide written informed consent due to severe cognitive impairment (Kearney et al., 2011). Data were collected using electronic surveys (computer-assisted personal interviewing [CAPI] with a trained interviewer), paper surveys (self-completion questionnaires [SCQ] returned post interview), and health assessments (HA; Kearney et al., 2011). The present study used data from the CAPI and HA. TILDA survey and sampling methods are described elsewhere (Kearney et al., 2011; Kenny et al., 2010). Sampling was designed to be nationally representative (Kearney et al., 2011). All data collection procedures were approved by the Trinity College Dublin Health Research Ethics Committee, and written informed consent was obtained from all participants (Kearney et al., 2011; O'Hare, O'Sullivan, Flood, & Kenny, 2016).

Individuals were included in the analysis if their response to the question "which one of these would you say best describes your current [labour market] situation" in CAPI at Wave 1 was "employed," "self-employed," or "in education or training" (TILDA, 2010). Individuals were also included if their response was "unemployed" or "other" and they had completed at least 1 hr of paid work during the previous week. Individuals were excluded if they planned (at Wave 1) to retire before the time of data collection for Wave 2, if they answered "I don't know" or were missing data for any of the predictor variables at Wave 1 (Table 1), or if they did not report their employment status at Wave 2.

Analysis

Two sets of analyses were conducted to determine the predictors of the two outcome measures: unexpected

Table 1. Predictor Variables Extracted and/or Derived From TILDA.

Measure	TILDA variable	TILDA question/definition
Age	CM003	For the purposes of this research can you tell me if you are aged . . . (Selected from provided options)
Sex	CS004	Is Respondent male or female? (code without asking)
FOF	PH408	Are you afraid of falling?
Activity limitation due to FOF	PH410	Do you ever limit your activities, for example, what you do or where you go, because you are afraid of falling?
Anxiety	PH316_02	What type of emotional, nervous, or psychiatric problems do/did you have? (Selected from provided options)
Pain	PH501	Are you often troubled with pain?
Number of physical limitations	DISimpairments (derived from FL001_01 to FL001_11)	Because of a physical or mental health problem, do you have difficulty doing any of the activities on this card? Exclude any difficulties that you expect to last less than 3 months. (Selected from provided options; e.g., walking 100 m, sitting for about 2 hr, climbing one flight of stairs without resting)
Number of ADL impairments	DISadl (derived from FL002_1 to FL002_6)	Because of a health or memory problem, do you have difficulty doing any of the activities on this card? Again, exclude any difficulties you expect to last less than 3 months. (Selected from provided options; e.g., dressing, including putting on shoes and socks; bathing or showering; getting in or out of bed)
Self-rating of health	PH009	In general, compared with other people your age, would you say your health is . . . (Selected from provided options)
Frailty (Fried et al., 2001)		
Weight loss	PH008	In the past year have you lost 10 pounds (4.5 kg) or more in weight when you weren't trying to, for example, because of illness? Possible answers: **yes**, no
Exhaustion	MH007 MH0020	I felt that everything I did was an effort. I could not get "going." Possible answers: rarely or none of the time (1), some or a little of the time (2), **occasionally or a moderate amount of time (3), all of the time (4)**
Physical activity (Bushman, 2012)	IPAQmetminutes	International Physical Activity Questionnaire (Craig et al., 2003; used to determine IPAQmetminutes) (IPAQmetminutes)(3.5)(body mass) / 200 Men: **<383 kcal/week**, ≥383 kcal/week Women: **<270 kcal/week**, ≥270 kcal/week
Walk time	FRTUGTimeSec	Timed Up and Go score (modified from Fried Frailty Scale; time to walk 15 feet was not collected as part of the TILDA database) ≥**14 s,** <14 s (based on Shumway-Cook et al., 2000)
Grip strength	Griptest1D, griptest2D, griptest 1ND, griptest 2ND (maximum)	Maximum force on hand dynamometer test Men: ≤ **29 kg**, >29 kg (BMI ≤ 24); ≤ **30 kg**, >30 kg (BMI = 24.1-28); ≤ **32 kg**, >32 kg (BMI > 28) Women: ≤ **17 kg**, >17 kg (BMI ≤ 23); ≤ **17.3** kg, >17.3 kg (BMI = 23.1-26); ≤ **18 kg** >18 kg (BMI = 26.1-29); ≤ **21 kg**, >21 kg (BMI > 29)

Source. TILDA (2010).
Note. Bolded terms under the "frailty" heading indicate positive responses for frailty for that characteristic. Positive responses for one to two or 3+ characteristics denote a frailty status of "pre-frail" or "frail," respectively. TILDA = The Irish Longitudinal Study on Ageing; ADL = activity of daily living; FOF = fear of falling; BMI = body mass index.

retirement (those who retired prior to their planned or expected retirement age, relative to those who were employed at Wave 2) and unemployment at older age (those who were not working and not identified as retired, relative to those who were employed at Wave 2). Information on planned retirement age was collected at Wave 1, with the following question asked to all individuals not already in retirement at Wave 1: "At what age do you plan to retire?" with possible answers of "50 . . . 99," "I do not plan to retire," "I don't know," and "I refuse to

answer." Because individuals who planned to retire before Wave 2 (i.e., within 2 years following the initial TILDA interview) or who answered "I don't know" or "I refuse to answer" were excluded from the analysis, all individuals who were retired at Wave 2 were assumed to have retired prior to their expected retirement age.

Predictor variables were age, sex, FOF, activity limitation due to FOF, anxiety, pain, number of physical limitations, number of impairments in activities of daily living (ADLs), perception of health, and frailty status (Table 1).

Table 2. Results of the Univariate Analyses for Unexpected Retirement and Unemployment.

	Employed (n = 1,678)	Unexpected retirement (n = 140)	Odds ratio (unexpected retirement relative to employed)	p	Unemployment (n = 168)	Odds ratio (unemployed relative to employed)	p
Age (years)	55.6 (5.3) Range = 49-80	62.1 (6.7) Range = 49-80	1.17 [1.14, 1.20]	<.0001[a]	56.1 (5.4) Range = 49-80	1.02 [0.99, 1.05]	.21
Sex							
Male	830 (49.5)	83 (59.3)	1.49 [1.05, 2.11]	.026	71 (42.3)	0.75 [0.54, 1.03]	.076
Female	848 (50.5)	57 (40.7)	1.0		97 (57.7)	1.0	
FOF (%)	13.9	16.4	1.22 [0.76, 1.95]	.41	18.5	1.40 [0.93, 2.12]	.11
Activity limitation due to FOF (%)	3.4	4.3	1.27 [0.54, 3.01]	.58	5.4	1.61 [0.78, 3.31]	.20
Anxiety (%)	3.8	5.7	1.53 [0.72, 3.26]	.27	5.4	1.43 [0.70, 2.92]	.33
Pain (%)	27.7	31.4	1.20 [0.83, 1.74]	.34	38.1	1.61 [1.16, 2.24]	.0046[a]
Physical limitations (n)	1.12 (1.52) Range = 0-10	1.61 (1.99) Range = 0-8	1.18 [1.07, 1.29]	.0005[a]	1.57 (1.86) Range = 0-10	1.17 [1.07, 1.27]	.0004[a]
ADL impairments (n)	0.03 (0.19) Range = 0-2	0.12 (0.42) Range = 0-3	2.83 [1.74, 4.61]	<.0001[a]	0.07 (0.34) Range = 0-3	1.92 [1.12, 3.27]	.018
Perception of health (score)	2.16 (0.89) Range = 1-5	2.11 (1.03) Range = 1-5	0.94 [0.77, 1.14]	.50	2.36 (0.98) Range = 1-5	1.28 [1.08, 1.52]	.0055[b]
Frailty							
Not frail	1,018 (60.8)	62 (44.3)	0.53 [0.37, 0.76]	.0002[a]	82 (48.8)	0.65 [0.47, 0.90]	.0004[a]
Pre-frail	646 (38.5)	74 (52.9)	1.0		80 (47.6)	1.0	
Frail	14 (0.8)	4 (2.9)	2.49 [0.80, 7.78]		6 (3.6)	3.46 [1.29, 9.26]	

Note. Values presented for each group are the means with standard deviations in parentheses and accompanying ranges (continuous or ordinal variables), or number of participants with percentage of the group in parentheses (nominal variables). Odds ratios are the odds of unexpected retirement or unemployment at Wave 2 relative to being employed at Wave 2, with 95% confidence intervals of the odds ratios in brackets. The *p* value corresponds to the statistical significance of the associated odds ratio. FOF = fear of falling; ADL = activity of daily living. Significant model following [a]initial (α = .005) and [b]subsequent (α = .007) Holm–Bonferroni adjustment.

For each objective, both univariate and multivariate logistic regression analyses were performed, to identify odds ratios for each predictor variable (univariate) and to eliminate predictor variables that accounted for similar variance, while controlling for other variables that were predictive of the outcome measure (multivariate). There were not substantial numbers of individuals classified as "frail" in any of the groups (14, four, and six individuals for the employed, unexpected retirement, and unemployment groups, respectively). As such, the frailty status variable was collapsed to two categories for the multivariate analysis (non-frail and pre-frail/frail). This classification resulted in 660, 78, and 86 individuals in the pre-frail/frail classification in the employed, unexpected retirement, and unemployed groups, respectively. Alpha was initially .05 and adjusted using the Holm–Bonferroni method (Holm, 1979).

Results

The TILDA database contained 1,986 eligible individuals. At Wave 2, 1,678 of these were employed, 140 retired unexpectedly, and 168 were unemployed.

Unexpected Retirement

From univariate logistic regression, age, number of physical limitations, and number of ADL impairments were significantly associated with unexpected retirement (Table 2; *p* < .005), such that increased values of these predictor variables increased odds of unexpected retirement. Frailty status was also significantly associated with unexpected retirement, such that individuals who were not frail and frail were less and more likely, respectively, to experience unexpected retirement than individuals who were pre-frail. Multivariate regression revealed that age, number of ADL impairments, and frailty status significantly predicted unexpected retirement, with increased age, increased number of ADL impairments, and frailty status of pre-frail/frail (relative to non-frail) contributing to increased odds of unexpected retirement (Table 3). The *c* statistic for the full model was 0.80, suggesting a high capacity of the model to discriminate between employed individuals and those who retired unexpectedly.

Unemployment

Pain, number of physical limitations, and frailty status were significantly associated with unemployment at older age in the univariate analyses, with increased pain, increased number of physical limitations, and a status of frail (compared with non-frail or pre-frail) associated with increased odds of unemployment (Table 2, *p* < .005). Number of physical limitations and frailty status

Table 3. Results of the Multivariate Analyses for Unexpected Retirement and Unemployment.

Predictor variable	c statistic (full model)	Odds ratio (relative to employed)
Unexpected retirement	0.80	
Age		1.16 [1.13, 1.19]
Number of ADL impairments		2.06 [1.21, 3.52]
Frailty status (relative to non-frail)		1.52 [1.05, 2.21]
Unemployment	0.59	
Number of physical limitations		1.14 [1.05, 1.25]
Frailty status (relative to non-frail)		1.48 [1.07, 2.05]

Note. Odds ratios are the odds of unexpected retirement or unemployment at Wave 2 relative to being employed at Wave 2, with 95% confidence intervals of the odds ratios in brackets. ADL = activity of daily living.

significantly predicted unemployment in the multivariate analysis, with an increased number of physical limitations and a status of pre-frail/frail (relative to non-frail) contributing to increased odds of unemployment (Table 3). The c statistic for the full model was .59.

Discussion

Previous work relating to retirement and unemployment at older ages is limited in terms of an understanding of the associations of psychological constructs, resulting adverse behaviors, and health-related factors reflecting functional status. As such, this study aimed to explore the influence of psychological constructs (i.e., FOF and anxiety), resulting adverse behaviors (i.e., activity restriction due to FOF), and health-related factors reflecting functional status on both unexpected retirement and unemployment in adults above 50 years in Ireland. Unexpected retirement was predicted by age and health-related factors reflecting functional status (number of ADL impairments and frailty status); likewise, unemployment at older ages was predicted by health-related factors reflecting functional status (number of physical limitations and frailty status). These findings provide insight into factors contributing to an inability to continue working and/or obtain employment in the later years of working life, which may aid in identifying strategies and interventions to extend working life for older adults. Further application lies in the potential utility of the findings for identifying groups of at-risk older adults, and developing interventions to prevent or minimize these detriments. These findings may enable targeting of specific components of older adult care for minimizing loss of function and mobility, and maintaining independence.

The present findings are consistent with previous research associating medical factors with adverse work outcomes such as early retirement, early transition out of work, and unemployment (Biefang et al., 1998; Rice et al., 2011; Wagenaar, Kompier, Houtman, van den Bossche, & Taris, 2015; Welch, Haile, Boden, & Hunting, 2010), although the present study focused on health-related factors reflecting functional status as opposed to medical factors. In the present study, both unexpected retirement and unemployment were predicted by health-related factors reflecting functional status. Whereas previous studies emphasized specific medical conditions, the health-related factors included in the present study consisted of perception of health, pain, numbers of ADL impairments and physical limitations, and frailty status, with the latter three factors significantly predicting work outcomes. ADL impairments and physical limitations were incorporated to provide an indication of physical capabilities related to everyday activities, specifically general mobility capacity and ADLs. That the numbers of ADL impairments and physical limitations were significant predictors of unexpected retirement and unemployment at older ages, respectively, may be due to the inclusion of activities that would be relatively common for most individuals and may influence individuals' abilities to move around safely and comfortably, and function effectively, in their work life. Frailty, or a reduction in the body's ability to respond to stress, has been defined as the presence of ≥3 of shrinking, weakness, poor endurance/exhaustion, slowness, and low activity (Fried et al., 2001). Characteristics included in this measure may detract from an individual's ability to work productively. In addition, frailty status is associated with an increased risk of adverse health outcomes such as hospitalization, falling, ADL disability, and mobility disability (Fried et al., 2001), which may also affect the ability to obtain or maintain employment. It is interesting to note that the proportion of individuals categorized as pre-frail/frail was approximately 39% for the employed group, but was substantially higher for the unexpected retirement and unemployment groups (56% and 51%, respectively). Potentially, screening for frailty may provide an indication of work outcomes for older adults, which could be performed either through general practitioners or self-screening using simple, quick measures such as the Fatigue, Resistance, Ambulation, Illnesses, Loss of weight (FRAIL) Scale (Abellan van Kan, Rolland, Bergman, et al., 2008; Abellan van Kan, Rolland, Morley, & Vellas, 2008; Morley, Malmstrom, & Miller, 2012) or the Edmonton Frail Scale (Rolfson, Majumdar, Tsuyuki, Tahir, & Rockwood, 2006). In addition, increasing public awareness of frailty and its potential

negative consequences appears to be warranted. These findings may provide insight into specific target areas to emphasize in interventions and/or care plans for older adults with respect to function and health, to minimize loss of function and mobility and to maintain independence and ability to work into the older years of life.

Previous studies have suggested that FOF influences function- and health-related outcomes in older adults. FOF has been associated with frailty and falls in community-dwelling older adults (Arfken, Lach, Birge, & Miller, 1994). Similarly, Cumming, Salkeld, Thomas, and Szonyi (2000) observed that FOF was associated with greater age-related declines in ADLs in individuals who were hospital inpatients. Anxiety has also been associated with increased disability in community-dwelling older adults (de Beurs et al., 1999). Conversely, the present analysis did not find that FOF, anxiety, or activity restriction due to FOF were associated with unexpected retirement or unemployment at older age. The analysis of these variables in the present study may have been limited by their binary classification as opposed to scales classifying the extent to which the variables were present. The discrepancies between the present and previous studies may also be explained by the differing study samples, as previous studies focused on patient groups (Cumming et al., 2000) or community-dwelling older adults of different age ranges than the present study (i.e., >65 years old, Arfken et al., 1994; or 55-85 years old, de Beurs et al., 1999). That FOF, anxiety, and activity restriction due to FOF were not significant predictors of work outcomes in the present study suggest that these characteristics do not necessarily exert a strong influence in older adults in preretirement ages (i.e., 50-65 years old), but may become more important post-retirement or in patient populations.

The identified predictors of unexpected retirement and unemployment outcomes raise concerns for the economic and social well-being of this group, especially for those who become unemployed at an older age. Those who retired unexpectedly would likely have a financial plan for their retirement, although the retirement package may leave them less well-off than if they had continued to work and then retired at the planned age. However, those who become unemployed may still be seeking work (potentially out of financial need), may not have a retirement plan in place, and/or may not yet be eligible to activate their plan. At the time of TILDA data collection, around 40% of Irish workers aged 30 to 65 were not enrolled in an occupational or personal pension plan (Organisation for Economic Co-Operation and Development, 2014). Therefore, for individuals who depend on their employment for financial support in later life (i.e., those who depend on their employment income until age 65 to obtain sufficient financial support for retirement), unemployment may leave them particularly vulnerable financially, both during the period of unemployment and when they reach retirement age, resulting in financial strain on both the individual and their family.

Additional financial consequences may also result at the societal level. In Ireland, although the retirement age is typically 65, full state pension does not begin until the age of 66 (state transitional pension, which previously provided income at age 65, was eliminated in 2014; Weston, 2016). Consequently, the number of 65-year-olds applying for the Jobseeker's Benefit program has spiked (Weston, 2016). Older individuals who are unemployed and unable to obtain employment may add financial burden to the state. In addition, based on the findings of the present study, the unemployed group was younger than the unexpected retirement group. As these individuals are younger and, therefore, farther away from retirement age, they will have a longer period of time during which they could potentially be at financial risk or require government assistance, adding further financial burden to families and/or society. Consequently, these groups may be of interest to target for interventions to minimize the risk of financial or social detriments in the older ages of the life span, to ease the financial burden they may experience during unemployment.

Psychosocially, older adults are vulnerable to loneliness, which is associated with developing depressive symptoms (Bodner & Bergman, 2016). Depression is also associated with increased odds of exhibiting frailty in older adults (St John, Tyas, & Montgomery, 2013). As such, the combination of frailty and loneliness due to loss of occupation may increase risk of developing depressive symptoms among underemployed older adults. These findings should be considered in the development of social programs for older adults to reduce the risk of loneliness and depression, and aid older adults in maintaining their functional status.

The study was limited by several considerations, including the secondary analysis design and the self-report nature of most measures, which may have introduced reporting bias in the predictor variables. The sampling techniques for the TILDA database were such that the full sample was nationally representative (Kearney et al., 2011). However, as sampling weights were not yet available for the Wave 2 data, weights were not incorporated into the analysis, limiting the ability to generalize the findings to the entire population of older adults in Ireland. The applicability of these findings to those in other countries is also unknown. Further work may seek to confirm these findings using longitudinal databases on aging from other countries. Finally, although factors associated with occurrences of unexpected retirement and unemployment were examined in this study, we were unable to incorporate participants' reasons for these outcomes due to confidentiality concerns within the TILDA data set. For example, participants may have retired unexpectedly due to an acute bout of illness, ill health of a partner, and/or reorganization of jobs within a company, as opposed to the factors analyzed in the present study; as such, our inability to

analyze these reasons constitutes a limitation of the analysis.

Conclusion

In conclusion, this study identified predictors of unexpected retirement and unemployment at older age, with a focus on psychological constructs, resulting adverse behaviors, and health-related factors reflecting functional status. Age and health-related factors reflecting functional status (number of ADL impairments and frailty status) contributed to the likelihood of unexpected retirement, whereas health-related factors reflecting functional status (number of physical limitations and frailty status) contributed to the likelihood of unemployment at older age. These findings advance our understanding of factors associated with adverse work outcomes at older ages beyond the previous focuses of medical factors, work-related psychological factors, demographic/personal factors, and physical/organizational aspects of the job or workplace, and also provide insight into the specific outcomes of unexpected retirement and unemployment. The findings provide insight into aspects of health and physical capacity that should be emphasized to maintain function and independence in older adults. Improved understanding of work outcomes for older adults may also aid in identifying strategies and developing interventions to extend working life and to aid individuals at risk of financial, physical, psychological, or social detriments.

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