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**WORK FAMILY INTERFACE, WORKING  
ENVIRONMENT AND JOB SATISFACTION  
AMONG FINNISH POSTAL EMPLOYEES**

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## **ABSTRACT**

Bidhya Acharya Adhikari: Work family Interface, working environment and job satisfaction among Finnish postal employees  
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## **Background**

The competing demands of work and family life is an important aspect of healthy work environment. This study investigated work life balance indicators from work and family life domain as well as work and health related factors and their association with job satisfaction among older employees of postal service sector.

## **Methods**

A survey on the Finnish postal service employees was conducted among 50 years and older employees (age range: 50-67 +; 60% males) in 2016 with the follow-up in 2018 (n = 1466). Job satisfaction at follow-up was measured in a scale of 1-6 and dichotomized (yes vs. no). Work family balance was defined by two composite variables of support at work (4 items) and work and family time (3 items) and dichotomized (low vs. high) using their median values. Work and health related indicators and socio demographic information were also obtained through questionnaire survey. Log-binomial regression model was used to calculate the odds ratio (ORs) and their 95% confidence intervals (CIs) for the relationship between work-life balance and job satisfaction.

## **Results**

About half of the employees (49%) were satisfied with their job. Work, health and socio-demographic factors adjusted results shows that low support at work (OR 0.31, 95% CI 0.23-0.42) and low work and family time (OR 0.26, 95% CI 0.19-0.35) was associated with job satisfaction. Among work- and health-related factors, having regular day or two shifts work (compared to other forms of work), very often hurry at work (compared to sometimes) were associated with lower odds of job satisfaction while, possibility to influence work (compared to never) was associated with higher odds of job satisfaction. No or less sickness absence at work (compared to high sickness absence) was also associated with higher odds of job satisfaction.

## **Conclusion**

Poor work life balance, i.e. low support at work and low work and family time was associated with low job satisfaction. Work and family domain are integral part of healthy work environment; attention should be paid to the domains of work and family to improve older workers job satisfaction.

**Keywords:** work family interface; work-life balance; job satisfaction; postal workers; work satisfaction

The originality of this thesis has been checked using the Turnitin Originality Check service.

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## **REFERENCE TO THE ORIGINAL MANUSCRIPT**

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## **LIST OF ABBREVIATIONS**

WLB	Work life balance
WFB	Work family balance
OECD	Organisation for Economic Corporation and Development
JDR	Job Demand Resource
LSHPD	Long Standing Health Problem or Disability
EWCS	European Working Conditions Survey
WFC	Work Family Conflict
FWC	Family Work Conflict
WIF	Work Interfering to Family
FIW	Family Interfering to Work
WFE	Work Family Enrichment

## 1. INTRODUCTION

Population ageing has become a global demographic trend lately. United Nations (UN) aging report depicted 700 million people of the world's population in the year 2019 are in the age group of 65 and over and this is expected to be doubled by 2050, to 1.5 billion people. As a result, the portion of younger people entering to the labour market is small which has necessitated people to work longer than the statutory retirement age (Vives et al., 2018). With demographic shift, the age diverse workforce has become a key challenge for organisations also in terms of retaining and improving the job satisfaction among younger and older employees (Stone and Deadrick, 2015). Since the active work force is aging rapidly, the critical importance of encouraging and productive aging at work while attaining a work-life balance has been recognised in research and academics also (Berde and Rigo, 2020; Husic et al., 2020) to promote longer working lives and later retirement as well as to reap the benefits at societal and national level.

Evidently, work life balance (WLB) has been emerged as a societal and structural concern widely (Znidarsič and Bernik, 2021; Valcour, 2007; Keeney et al., 2013). In such context, WLB conveys important implications on people's well-being and work productivity (Lyness and Judiesch, 2014). It influences experiences by enhancing work satisfaction and organizational commitment as well as reduces employee stress (Kossek et al., 2014). WLB further contributes to enhancing family satisfaction, performance and functioning (Carlson et al., 2009). A healthy work-life balance is substantial as it affects not only the physical and mental wellbeing of an individual but also the overall sustainability of organisations (Wong et al., 2020).

Job satisfaction is the main constituent that leads to “recognition, income, promotion, and achievement of other goals providing feeling of fulfillment and overall happiness” (Kaliski, 2007; Smith, 2007). Work satisfaction indicates the outlook and impressions of people about their occupation in both positive and negative aspects (Armstrong, 2006); positive and favourable attitude signify satisfaction and negative attitudes signify dissatisfaction. Moreover, these positive and negative job relating attitudes could be influenced by the types of work, work



hours, work pressure, presence and interaction with coworkers, supervisors or subordinates role, and pay level. These could create difficulties among employees in maintaining a balance between the job and work commitments as well as affect job satisfaction (George and Jones, 2008). A high level of work satisfaction allows employees for long term stability on the job irrespective of individual factors like age, tenure, or education status (Miller, 2008); is vital for individuals' wellbeing and happiness as well as for companies' overall growth and productivity (Bojanowska and Zalewska, 2016).

Work satisfaction is one of the determining factors for the extension of work life at older ages (Satuf et al., 2018), a positive balance between work and family lives among older workers could provide direction to longevity of work career, delaying retirement thoughts and absenteeism from work if they gain ultimate satisfaction from the work (Harkonmäki, et al., 2009). Many studies have propagated the fact that older workers acquiring positive WLB and job satisfaction (Richert-Kazmierska and Stankiewicz, 2016) may voluntarily want to stay in the labour market for a longer period (Berde and Rigo, 2020) where there are less stringent pension regimens with accessible pathways. Therefore, it is important to enrich the job satisfaction of older workers as well as increasing their employment participation rate.

Prior studies have focused primarily on work family conflicts or enrichment approach in work-family interface (Weale et al., 2019) mostly from midlife workers' perspectives (Gragano et al., 2020); traditionally challenging workforce like health professionals (Makabe et al., 2015; Starmer et al., 2019); and corporate sectors (Baral and Bhargava, 2010; Bansal and Agarwal, 2017). Though middle-aged and older work force is regarded as one of the most valuable human resources in modern society, work life balance among older workers has not been explored well in earlier literatures. As evident, older employees are such generations who are mostly taking care of their ageing parents and children, both at the same time and are coping with their own ageing and health. They are more likely to face difficulties at work and conflicts in everyday life that could affect their mental and physical wellbeing (Fekih-Romdhane et al., 2021). However, individual's age as a factor that could cause conflict between work and family life (Bal et al., 2011) along with the cumulative effects of various exposures with age (Marmot et al., 2008) has not been considered much. There is an existing gap in literature regarding older worker's work life balance perspectives. This study investigated the role of work-life balance on the job satisfaction of postal service employees aged 50 years and older.

## **2. LITERATURE REVIEW**

### **2.1 Work-family interface**

Work-family interface” is a broad concept which consists of two opposite ends of work and family spectrum. The interface of the work and family has become a challenging issue because of the significant changes in the nature of work (Grzywacz and Marks, 2000; Major and Germano, 2006). More often the terms "interface" and "interaction" are used interchangeably to indicate the correlation between work and nonwork, with no specific conceptual meanings, but as a direction of positive and negative influences (De Simone et al., 2014).The work and family life connection exists in three main constructs: the conflict, enrichment and balance construct which illustrates events and decisions that occur in one domain have the potential to influence outcomes in another as “cross domain effects” (Friedman and Greenhaus, 2000).The bidirectional as well as positive and negative influences of these constructs in one another domains suggest work family interface as a dynamic and complex interface involving cognitive, affective, as well as social and behavioural aspects (Morris, 2008).

In addition, work and family spheres conceive socially formed boundaries between work and family domains which help to understand the individuals' boundary control on cognitive, physical, and behavioral boundaries within these domains (Ashforth et al., 2000). On the other hand, work-family border theory involves border keepers and family members (Clark, 2000) in performing work and family roles at different times and locations. Since work-family interface studies began with stressing on the ‘conflict’ dimensions of the work and family domains, researchers have looked at a variety of antecedents and results associated with work-family conflicts and work-family enrichments (Bhalla, 2017; Mishra and Bhatnagar, 2019) including employment and family factors to career or family satisfaction (Wayne et al., 2017). Depending on the motivational and conflictual nature, work and family relationships may encourage or obstruct career development, work-related behaviours, and healthy family functioning, according to (Blustein, 2001). Hence, work-family dynamics are complicated, and it is believed that a single theory or idea would not be able to illuminate all of the shades in these two important domains (Gopalan and Pattusamy, 2020)

### *2.1.1 Work Environment*

#### *2.1.1.1 Physical Environment*

Employees have a large influence in creating a pleasant working atmosphere. This involves issues such as work hours, rules, leadership behaviours, and the physical environment. The work environment is critical, particularly for employees' health, safety, and security in performing their responsibilities (Pramudena and Hilda, 2019) as well as managing work-life. Many organisations seek to improve their workers' work-life balance e.g., by flexible work hours, family-friendly policies (Morganson et al., 2014) in order to increase employee satisfaction and efficiency. In work circumstances where strenuous strength is required workers face occupational hazards like acute injury and musculoskeletal problems (Campos-Serna et al., 2013). In a research regarding work-life balance practices among dual earning couples working on different organisations, Bansal and Agarwal (2017) found physical infrastructure like furniture and suitable electronic gadgets contribute to maintain good health, wellbeing, and the overall quality of life of the employees. On the other hand (Von Bonsdorff et al., 2010) explored an extended working life could be difficult for employees in physically demanding jobs, and early retirement in such work environment is a common occurrence.

#### *2.1.1.2 Psychosocial Environment*

Besides, physical environment, psychosocial working conditions also influence the work satisfaction and work life career extension (Blekesaune and Solem, 2005). Poor psychosocial working conditions, consisting of high work strains, time pressures and expectations of availability adversely affect WLB (Mellner et al., 2015). Significant research has discovered strong links between poor psychosocial working circumstances and early retirement (Elovainio et al., 2005). On the other hand, many other aspects of the psychosocial workplace like employee-management relationship, relationship with coworkers, job demands, or age discrimination also plays an important role in older worker's well-being and may have an impact on retirement decisions (Thorsen et al., 2016). As evident, a healthy work life balance is essential regardless of gender specificity, a Korean study Choi et al. (2020) showed distinct job quality indicators between men and women. In the study male workers were affected with work time quality and work intensity whereas along with work intensity and working time quality, female workers were also found affected by the physical ambience including biological,

chemical and ergonomic risks. However, the long working hours has become one of the most prominent hindrance factors for work–life balance (Hsu et al., 2019). In another study on Swedish Transport Administration agency employees Bjärntoft et al. (2020) discovered occupational factors like (high job demands, time pressures) and particular occupation related behaviours like (excessive overtime work and over commitment to work) as possible causes of WLB among office workers.

Many studies (Haar et al., 2019; Kaliannan et al., 2016) have shown workers who are engaged in a family friendly organisational work culture and having flexible working hours are capable to balance their work and personal life requirements in better ways. A good organizational culture helps employees to solve work-family problems in reducing work related tensions and support them to experience balance in work-life. Studies have often shown that flexible work arrangements enhance WLB by providing more autonomy upon balancing work and personal life (OECD, 2016; Hayman, 2009). At the same time, WLB helps in increasing worker’s happiness, optimistic work attitudes, work satisfaction, organisational responsibility (De Menezes and Kelliher, 2011), job efficiency and career opportunities (Sirgy and Wu, 2009).

In addition, where work schedule is comprised of high working time control, highest subjective health of employees was found (Brauner et al., 2019) so work time control is also taken as one of the powerful tools to assist employees in achieving a healthy work–life balance (Geurts et al., 2009). In a survey conducted in the United States, Golden and Wiens-Tuers (2006) showed that overtime work hours were frequently associated with greater job stress, weariness, and work–family conflict. Ferguson et al. (2012) indicated support from partners and coworkers enhanced employees’ experiences of work–family balance that have an impact on both job and family satisfaction. A positive relationship between support from the supervisors and affective loyalty has been observed in studies like (Hill, 2005; Baral and Bhargava, 2010; Kar and Misra, 2013) proposing that employees may acknowledge such supportive behaviour in terms of affective commitment towards work. In addition, support from the leader and co-worker contributes significantly to a stimulating work environment and a healthy work-life balance (Griggs et al., 2013) so that employees are more satisfied and productive.

### 2.1.2 *Work Stress*

Work stress arises from the physical, psychological, social, or organizational dimensions of a job that requires long-term physical and psychological effort. Factors like family demands, personal well-being, spousal interference, unsupportive attitudes, and cultural orientations can impact performance roles and conflicts might occur (Kuranga et al., 2020). The Karasek job demand control theory (Karasek, 1979; Karasek and Theorell, 1990) also known as Job Demand Resource (JDR) model theory distinguishes between work demand and control aspects. High work demands when combined with low job control are thought to cause the most pressure, resulting in exhaustion, physical illness, and job dissatisfaction, among other things. On the other hand, workers who have a high degree of job control when faced with high job demands, are thought to feel less pressure, as well as job satisfaction and personal development. Furthermore, a combination of low job demand and high job control is predicted to result in relaxation and low levels of strain, while a combination of low job demand and low job control is predicted to result in average strain but a loss of efficiency and motivation. Overall, this model predicts negative associations from the combined impacts of high strain, poor control, and low assistance available to the workers in meeting the demands.

Meanwhile, Skinner and Pocock (2008) viewed the issue of job containment in terms of evaluating work overload where typically three types of demands dominate at workplace in terms of time pressure in meeting deadlines, high work pace, and overload; the negative spill over of this aspect is observed as work–life conflict. High job demands were associated with higher work and family related stress through an increase in work family conflict (Smoktunowicz et al., 2017). Deadlines and work-related goals set by others result in work-stress which impacts workers' family life (Bansal and Agarwal, 2017). Employees experience tension when they do not have control at work regardless of the job demands (Berset et al., 2009). Working long hours or overtime and on weekends will leave employees with less time and energy to devote to other aspects of their lives, such as family life and moreover shift and night work may have short and long-term health consequences. If workers constantly adjust working hours, they lose predictability which can lead to difficulties organizing everyday life as well as biological and social desynchronization (Martens et al., 1999; Tucker and Folkard, 2012). Likewise, staff with more flexibility about their working hours are better able to adapt their working hours to their existing level of wellbeing, such as tiredness or the need for rest (Nijp et al., 2012) and are therefore less likely to become drained and hence conflicts between

work and private life can be reduced. Burnout and a poor work capacity index were found to be associated with 10–12-hour night shifts (Estryn-Béhar et al., 2014).

Occupational stress is a powerful mediator of the links between excessive work hours, work-life imbalance, and job discontentment in high-tech industries and banking (Hsu et al., 2019). The study also highlighted time management as crucial in the face of extended work hours and work stress. Another study among Finnish social and health care employees reported work demand and control in association to early retirement thoughts (Elovainio et al., 2005). Similarly, job support and control emerge as strong mediators in the relationship between work capacity, work-life satisfaction, and intention to retire. Similarly, lower job satisfaction and increased job-induced stress, work–life imbalance and exhaustion were all linked to higher perceived overload and supervisory demands on personal time among New Zealand workers (Macky and Boxall, 2008).

### *2.1.3 Family related factors*

Corporate systems that facilitate employees' work–life balance have been seen in practice in wide contexts like Child and Family Care Leave Act in Japan (Ouchi, 2009), higher labor standards to employees in (USA, Canada and European countries). In such context, leaves are permitted for maternity or childcare for certain period of time without having to lose job status along with pay. However, gender-specific roles and burden of family responsibilities still rely on women mostly (Noda, 2020). Most typical studies have focused family households with dependent, especially infant and children as ideal case scenario till date. Caring appears in different forms and one instance is the increase in eldercare population (Williams, 2001) which has not been focused much on the literatures though but could be seen as a major factor of work life balance issues.

In a study, Ikeda (2010) identified many primary issues like the difficulties for women after childbirth and during the early years of childcare regarding work life career. Likewise, issues with work hours are linked to women continuing to work while giving birth and caring for their children, as well as men's involvement in family and childcare. The study further highlighted the need to pinpoint specific problems exploring beyond those related to house works, child and family caregiving regarding work family balance or vice-versa. In a study on dual earner

couples, Bakker et al. (2005) observed feelings of burnout and work engagement crossover between husbands and wives. Similarly, Starmer et al. (2019) concluded significant gender roles and obligations regarding household activities contributed to more work-life balance dissatisfaction among female paediatricians than their male counterparts.

Work stress is the main issue that affects family relation, especially in the lives of the females who are highly involved in their family lives (Sarwar and Aftab, 2011). According to a work-life balance survey in Hongkong, women were found struggling hard to balance work and family life (Welford, 2008). Similarly, there are significant gender differences regarding family roles and work-life balance: older working males are more likely to be married, whereas older working women are more likely to be widowed or single, and carry the double load of paid and unpaid labour far into their later year while men do not (Vives et al., 2018). Everyone has limited resources (e.g., time, energy, and attention) to devote to family life duties, when job obligations surpass the resources available to meet the needs of family life, employees not only become overworked and exhausted but also their health and wellbeing is affected taking the form of work family conflict or role conflict theory (Kahn et al., 1964). Each person has a distinctive societal role to play; for people with young children, the family role occupies the primary position; for single young people, friends and leisure are most important (Keeney et al., 2013). However, most employees struggle to balance work and personal obligations within work and home spheres (Baltes et al., 2010).

#### *2.1.4 Work life balance*

“Work-life balance (WLB) is the ability to accomplish the goals or meet the demands of one’s work and personal life while achieving satisfaction in all aspects of life” (Bulger and Fisher 2012). Moreover, work-life balance encompasses the entirety of one's private life and focuses on "harmony or equilibrium between work and life domains" (Chang et al., 2010) which includes family, friends, community, spirituality, personal development, hobbies, and other leisure pursuits (Prabhu Shankar et al., 2007). WLB influences an individual's social, psychological, physical, and mental well-being in addition to his or her work position and personal life and also presenting an impact on employee attitudes and habits, as well as the productivity of the company (Eby et al., 2005). Hence, work-life balance is a comprehensive and a broader construct (Joshep et al., 2019). Alternatively work family balance (WFB) is more

focused on an individual's effort to devote enough time and energy to his or her family while completing all of his or her work responsibilities (Znidarsič and Bernik, 2021; Ferguson et al., 2012).

In the work family research, these two (WLB) and (WFB) are the mostly used concepts that explain the quest for a balance between work and other life roles (Joshep et al., 2019). However, some researchers preferred to define the work-life in its traditional label of “work-family” since, for most, work and family constitute the main role domains that demands most of the time, energy and attention and are possibly to come into conflict with each other (Koseek et al., 2011). In addition, the scholarly literature on the conceptual notion of balance revealed that 66 percent of definitions focused on work and family (Casper et al., 2018). While Chang et al. (2010) discovered only 9% of the quantitative and 26% of the qualitative studies investigated WLB separately from WFB. Therefore, it could be said that the work–family balance is the primary focus of knowledge gained over time concerning the predictors and implications of work–life balance (Kelliher et al, 2019; Sirgy and Lee, 2018).

At the same time work and family roles have been in focus on majority of work life balance studies and is so based as work–family balance studies (Haar et al., 2014; Casper et al. 2018; Keeney et al., 2013). Having said that in this study also WFB concept has been used interchangeably to work life balance. However, WLB concept is a wide concept based on earlier research perspectives. It is incorporated into broad aspect as “satisfaction and perceptions of success in meeting work and nonwork role demands, low levels of conflict among roles, and opportunity for inter-role enrichment, meaning that experiences in one role can improve performance and satisfaction in other roles as well” (Frone, 2003; Greenhaus & Allen, 2011; Valcour, 2007). Consequently, the need and emphasis to work-life balance is obvious and at the same time challenging too because of the multiple nature of people’s values, priorities, demands in diverse phases of lives and the use and accessibility of resources to meet those demands (Kossek et al., 2014).

Most of the existing WLB research have used work- family conflict and enrichment approach either in a positive or negative way as a proxy for work life balance (Carlson et al., 2009). Many large-scale social surveys seemed to focus mostly on work–family conflict as the outcome of work life balance studies which stipulated “life” as “family”. Pichler (2009) pointed out that there is much to “life” than “family” only. Life is partitioned in various spheres to incorporate



“family life”, “social life”, “leisure life”, “community life”, “material and financial life”, among others. It is therefore possible that work–life may conflict with other areas besides family life. On other sides, the extant literatures on WLB, denoting work and family life as a main concern is because of the rising number of working parents and specially women work force, however, there is equally a high rise in active senior workers, workers with a long-standing health problem or disability (LSHPD), single employees, and childless couples (Casper et al., 2007) who might have different needs and interests beyond work. It is hence essential to consider specific nonwork domains in order to reflect a thorough understanding of the factors that derive work–life balance in a diverse workforce. The relevant non-work domains in WLB study could include education, health, leisure, friendships, romantic relationships, family, household management, and community involvement (Keeney et al., 2013), however, the value that people place on various domains differs from person to person through different life circumstances and interest which is relevant to the present study of work and family sphere and has been acknowledged accordingly throughout the study.

#### *2.1.5 Individual Factors*

Theoretical research derives poor work role satisfaction decreases work-family balance and uncertainty can lead to dissatisfaction, feelings of liability, and a lack of enthusiasm in an individual. Negative feelings and attitudes of an individual associated with work domain not only contributes to low job satisfaction but also possess negative impact on the family (Liu et al., 2019; Yang et al., 2008). Since work-family balance has both positive and negative aspects, an increase in the negative dimension, resulting from work-role uncertainty, may suffocate the positive side, causing people to report less work-family balance (Gopalan and Pattusamy, 2020). Satisfaction in one's personal life can influence satisfaction in one's professional life. According to Person Environment (P-E) theory, job satisfaction can play a role in determining career satisfaction, as opportunities available in one's job and one's work experiences can gradually influence this (Liu et al., 2019).

Martinengo et al. (2010) depicted workers without children may find it more challenging to preserve personal and family time from professional obligations. Extant literatures have reflected work life balance concerns mostly among middle class, dual earner parents or working mothers (Gattrel et al., 2013; Smithson and Stokoe, 2005) and often limiting the understanding

of experiences of others like single parents (Skinner et al., 2012) and those without childcare responsibilities (Gattrell et al., 2013). Furthermore, younger and older workers, in particular, are less likely to have dependent childcare obligations so that the personal or family demands, and resources need might be different, however, their work-life issues are largely unknown. Martin and Kendig (2012) pointed out the need and importance of understanding the work-life balance of those individuals also who did not have childcare responsibilities. In a study, Wilkinson et al. (2017) figured out the work life needs of single professionals and managers were less valued than their colleagues with children, due to perceptions that their nonwork time was entirely recreation dependent. Likewise, Ryan and Kossek (2008) and Notkin (2014) found employers were less sympathetic to the nonwork needs of workers without childcare obligations, since they were often thought to have more free time.

Meanwhile, individual behaviours are likely to affect WLB. Through an increase in WFC, job demands were linked to higher work-and family-related stress. (Smoktunowicz et al., 2017). Excessive overtime work, that can require home or family time in any forms like answering work mails or phone calls even outside work hours, weekends, and holidays regularly (Mellner et al., 2014), ultimately leads to long work hours and lower WLB. Similarly, over-commitment to work had also been discovered to be highly linked with low WLB (Kinman and Jones, 2008). Most workers face the task of juggling work and personal demands (Baltes et al., 2010) to maintain productivity in both territories and protect their well-being (Linley et al., 2010; Lunau et al., 2014).

Many studies have thus paid attention to the individual characteristics such as self-esteem, life satisfaction, and optimism as it favours positive outcomes in work and personal life. Orkibi & Bandt (2015) perceived positive orientation as an adaptive individual resource that can facilitate worker's ability to balance work and non-work obligations and hence can promote job satisfaction. Work-life balance, in terms of time spent on leisure and personal care, has a positive effect on both men and women's life satisfaction. Organizational and personal initiatives aimed at improving individuals' ability to balance work and non-work roles can increase not only satisfaction with work-life balance, but also general life satisfaction resulting into a higher quality of life (Szücs et al., 2011). In addition, achieving WLB is more of a personal determination as how one integrates work, family, friends and self as a whole (Kaliannan et al., 2016).

## **2.2 Consequences of Work Life Balance**

### *2.2.1 Impact on health and sickness*

A better work life balance can improve health and wellbeing of workers (OECD, 2016) whereas a poor WLB can contribute to negative health outcomes such as higher blood pressure and cholesterol levels, occupational burnout, depression, irritability, lethargy, and work and life dissatisfaction as a whole (Sirgy and Lee, 2018). In studies, Peeters et al. (2005) and Van Steenbergen et al. (2007) discovered workers reported more job exhaustion, feelings of depression, cynicism and anxiety who encountered higher prevalence of family-to-work interference. Further, researchers have also demonstrated negative consequences on several individual physical and mental health outcomes (Eby et al., 2005; Van Steenbergen and Ellemers, 2009), burnout and psychological strain (Allen et al., 2000) due to WFC. Studies have also linked WFC with parental stress (Kinnunen et al., 2004).

In a study of municipal employees in Finland, workers with strong work-family or family-to-work conflict were associated with poorer self-reported health than those who do not have such conflicts (Winter et al., 2006). Similarly, Chandola et al. (2004) observed gender variations in the association between work–family conflicts and mental health among Finnish, British, and Japanese employees which revealed the least work–family conflicts among Finnish female employees attributed to better mental health of employees than British and Japanese counterparts. In a longitudinal study, Neto et al. (2018) observed the reciprocal relationship between conflict and wellbeing. This also highlighted a greater balance between employment and family life is expected for individual health benefit.

Work life balance acts as a buffer between work-family tensions and happiness (Haar, 2009). According to (Frone, 2003; Sav et al., 2013) work-family balance literature stresses the significance of work-family balance and minimising tensions between the two domains for health and well-being. Voydanoff (2004) and Schieman et al. (2009) reported poor work-life balance as the most constant predictor of psychological distress and negative physical consequences such as workplace injuries and accidents, musculoskeletal problems, and unhealthy habits. Antai et al. (2015) investigated the association between work-life balance and sick absence among workers of age group (15-65) from the European Working Conditions Survey (EWCS) 2010 data in four Nordic welfare states where higher odds of self-reported sickness days and more health complications were found as outcomes of poor work life balance.

Studies like Gragnano et al. (2020) showed workers valued their health as much as their family in the WLB. Even though family role remains dominant in nonworking life (Keeney et al., 2013) it may not be the most crucial part of WLB for those with chronic disease conditions since the health-care management has a big priority and impact in such contexts (Gragnano et al., 2017). Much research has studied work family or family work conflicts in relation to decreased mental health and wellbeing aspects (Neto et al., 2018; Tooba and Zubairi, 2020), however, studies regarding subjective or physical health conditions and its relationship with WLB are still limited. In a study about nurses Makabe et al. (2015) pointed out a decreased quality of life due to work life imbalance that may have an impact on both the quality of treatment provided and the nurses' general health. Similarly, Lundberg (2005) showed balancing the conflicts of multiple responsibilities has significant consequences for family and health. This has engrained a research study need in future incorporating health as an important variable for work-life balance studies.

### *2.2.2 Work ability and productivity*

Poor work ability has been consistently related to those with a higher risk of early retirement compared to decent work ability in a variety of longitudinal studies (Jääskeläinen et al., 2016). According to research, work-life balance is vital for both individuals and organizations (Kaur and Kumar, 2014) as it influences job satisfaction, productivity, performance, reliability, and employee retention. Kar and Misra (2013) showed employees who are assisted by their company in managing work and home life are happier and more committed at work. Furthermore, a successful worklife balance also has an influence on the work engagement of individuals (Bedarkar and Pandita, 2014; Znidarsič and Bernik, 2021) and study has marked engaged employees are more productive employees (Gujral and Jain, 2013).

The nature of the work and support system in the workplace can be viewed as organizational resources that can potentially improve an employee's productivity and functioning in his or her family domain (Wayne et al., 2006). In such cases support at work provides a forum for workers to discuss and schedule their workload, as well as a way to coordinate work capacity among themselves (KC et al., 2019). According to (Ivancevich, 2009; Bandekar and Krishna, 2014) organisations that support work life balance policies and practices, employees are found content

and more productive with improved work engagement, job satisfaction and dedication which helps in decreasing employee turnover and sick leave days.

## **2.3 Job Satisfaction**

Job satisfaction is a multidimensional concept that has been linked with more of an attitude, an internal state, or a personal sense of accomplishment, either of quantitative or qualitative (Mullins, 2005). Moreover, Aziri (2008) represented it to a feeling that emerges with the notion that job satisfies both physical and psychological requirements. Job satisfaction is considered as one of the contributing factors for the efficiency of business organizations (Aziri 2011) as well as one of the most important factors influencing elder workers' labor market activity along with statutory retirement ages (Berde and Rigó, 2020). From the study of (Adikaram & Jayalathike, 2016) it is derived that the person's ability to perform jobs, communication level in an organisation and the management culture also influences the job satisfaction level of the employees basically in two aspects, the one incorporating the emotive feelings about jobs as affective job satisfaction, likewise, feelings of satisfaction concerning aspects of jobs like pays, hours and benefits as cognitive job satisfaction.

Job satisfaction in overall is a perception about how well work meets one's expectations. Moreover, it is also a general attitude that stems from a variety of unique attitude towards job factors, transition, and personal social relationships outside of work (Pramudena and Hilda, 2019). Consequently, work is an essential part of our life as it provides livelihood and at the same time contributes to recognition and expertise wherein job satisfaction plays a crucial role adding value to the work and overall life perspective.

### *2.3.1 Work related predictors*

Many prior researches have found the connection of job satisfaction with workload, burnout, and turnover intention (Dall'Ora et al., 2015; Karantzas et al., 2012; McGilton et al., 2013; Miller, 2008). However, the associations between job satisfaction, its determining factors, and longer-term impacts in general health, are often ambiguous and comprehensive examination of more research is further required (Khamisa et al., 2013). Significant association of work-life balance to job satisfaction has been shown in study (Kuranga et al., 2020) where work-life

balance was measured in terms of work demands, family workload, wellbeing, and spousal support. The result showed that women's ambitions for satisfaction are often prevented by the pressures that come with juggling so many roles at once. However, flexibility and job control of solely operating their companies provided satisfaction to the majority of women entrepreneurs. Likewise, a supportive work environment, better and strong working relationships with co-workers and management is important in maintaining a good work life balance and are the predictors of high job satisfaction (Bjarntoft et al., 2020; Haar et al., 2019).

Studies like Castle et al. (2006) found workload, professional support, team spirit, training, and pay, among other elements, all have an impact on job satisfaction. A higher level of perceived work time control have the positive effect of reducing work related stress while promoting both work-life balance and job satisfaction (Hsu et al., 2019). Many other studies have predicted long work hours as the crucial risk of low job satisfaction (Tucker & Folkard, 2012; Styhrea, 2011; Hsu et al., 2019). Tooba (2020) pointed out job satisfaction is also related to how employees are handled by their organisations, and how they are treated by their managers and coworkers and moreover how they are affected by their employment. Meanwhile, Thorsen et al. (2016) depicted job satisfaction as a powerful psychosocial predictor of late retirement.

In a Dutch financial service study, Van Steenbergen and Ellemers (2009) discovered enhanced job performance as a result of work-to-family as well as family-to-work enrichment. On the other hand, studies in work-family interface have shown that work-family conflict creates negative impact on work satisfaction and family satisfaction (Aryee et al., 2005; Kalliath et al., 2012). WFC in terms of Time and Strain based were found as the major predictors of poor job satisfaction related to work factors than factors related to family in the study (Kalliath and Kalliath, 2015). Whereas, (Greenhaus & Foley, 2007) supported that workplaces that are family friendly can minimize work-family conflict, foster positive work attitudes, and improve job satisfaction. According to the study (Gellis, 2001; Dollard et al., 2003) high workloads, lack of professional autonomy, job position uncertainty, lack of manager support, lack of task control, staff shortages, unreasonable client demands, and lack of professional options are among the factors that lead to low job satisfaction among social workers. Similarly, the nature of work and lack of fulfilment of non-work commitments give rise to stress and lower levels of WLB in professions like doctor and was found associated with low job satisfaction (kalliannan et al., 2016).

### 2.3.2 *Sociodemographic factors*

Despite considerable familial changes like women's increasing participation in the workforce, traditional notions on the relationship between femininity and caring have not changed much in the recent years. As a result of this gendered model, women are more likely than males to experience negative work-life outcomes like work family conflicts and diminished work satisfaction regardless of the number of hours worked (McKie et al., 2002; Skinner & Pocock, 2014; Khan, 2007). An US based study from working- and middle-class families by Grandey et al. (2005) projected decreased job satisfaction among women a year later because of work to family conflict. In another study, half of the female respondents reported always at rush and were less likely to achieve balance in work and other aspects of their life and more importantly were not satisfied with home responsibilities (Starmer et al., 2019). Though the gender gap is filling than in the past, women still spend more time in household responsibilities. Significant differences regarding job satisfaction among male and female and marital status has been shown in studies (Takrim and Siddiq, 2016; Starmer et al., 2019) where females and married were found less satisfied. While Burke (2002) stated men become more satisfied and happier when they achieve more on the job, even if it has a negative impact on their families, while women value both work and family and also strive for satisfaction on both domains.

Furthermore, some study suggests that job satisfaction when conceptually interpreted according to the objective characteristics of the two job types, for instance, job control or autonomy then work satisfaction is found higher among white-collar workers than among blue-collar workers (Humphrey et al., 2007). Likewise, by defining blue-collar workers as those who perform primarily physical labour and have limited career options (Gibson & Papa, 2000) and white-collar workers as professional and semi-professional employees (Hammer & Ferrari, 2002), job satisfaction is found to be lower among blue-collar workers than among white-collar workers regarding different aspects of their jobs including pay, supervisors and the work itself (Lee et al., 1981).

Studies like (Lambart et al., 2006; Young et al., 2013; Kaliannan et al., 2016) found older generation more satisfied with their jobs compared to younger generations as they place greater emphasis on non-work activities and be successful to maintain WLB whereas younger generations are dissatisfied with their lack of personal time and work hours. In general, older workers report more positive working attitudes, fewer negative emotions, and a more

favourable work environment along with stronger career identity and work engagement than their younger counterparts (Kim and Kang, 2017). In regulatory environments where older workers have voluntarily choices to work at older ages, they also have higher levels of job satisfaction (Berde and Rigó, 2020). Moreover, older workers with high job satisfaction who were not subjected to age-based discrimination stayed in the workforce for longer (Thorsen et al., 2016). In a study, Lambart et al. (2006) predicted a negative relationship of tenure to job satisfaction because organisational commitment and responsibilities grows with tenures and if the work is not stimulating and is demanding then tenured employees might feel dissatisfied with the employment and desire retirement. It can be delivered that everyone is affected by work/life problems, regardless of their level of education, gender, income, family structure, occupation, ethnicity, age, job status, or religion where stress associated with harmonising work and personal life is a substantial barrier to employee work success (Mc Millan et al., 2011).

#### **2.4 Association between work-family support and job satisfaction**

Work-family involvement research has shown that work and family relationships can have a substantial effect on work and life satisfaction (Adams et al., 1996). Employees report greater work-family balance as a result of social assistance from spouses and workmates. This support and balance ultimately have positive effect of satisfaction in both work and family domains (Ferguson et al., 2012) and on family cohesion (Thompson & Cavallaro, 2007). Studies have also linked that employee who lives with a partner have better job satisfaction. It is possible that cohabiting with a partner raises the likelihood of getting emotional, influential, and appraisal support and also compensates for family stresses therefore work satisfaction could be gained (Edwards and Rothbard, 2000; Ferguson et al., 2012). Evidently marital support is related to reduced WIF (Wallace, 2005) and FIW (Voydanoff, 2005).

In a study Ferguson et al. (2012) observed colleague support had a direct connection with job satisfaction and spouse support had a direct association with job, marital, and family satisfaction. Employee reported higher job satisfaction and commitment whose supervisors were supportive of work-family issues (Aryee et al., 2005) because supervisors can play positive roles to reduce majority of work-related tensions. Similarly, many literatures have mediated positive roles of organizational interventions aimed at work life balance and job-related outcomes. Baral and Bhargava (2009) observed supervisor support and supportive



work-family culture were linked to job satisfaction and affective commitment. Significant work and family outcomes like family satisfaction and functioning and work satisfaction and performance could be gained through work–family balance (Carlson et al., 2009).

Rathi and Barath (2013) conveyed job and family satisfaction could be generated through individuals' assessments of their work and family lives or circumstances, which are marked according to the emotional states. When individuals are extremely satisfied and successful in their respective roles, sensation of balance could be achieved whereas lower satisfaction will result in an imbalance therefore positive outcomes are associated with positive work family interface (Greenhaus and Allen, 2011). Similarly, work and family roles had a great effect on work-family balance through Work-Family Conflict (WFC) and Work-Family Enrichment (WFE) process and is extensively associated with job and family satisfaction (Landolfi et al., 2020; Kossek et al., 2014). A meta-analysis conducted by Ford et al. (2007) obtained a linkage between domain specific stressors on family work conflict and work satisfaction, confirming that job satisfaction varies significantly due to role pressures in the family domain.

## **2.5 Health, Work-related factors and job satisfaction**

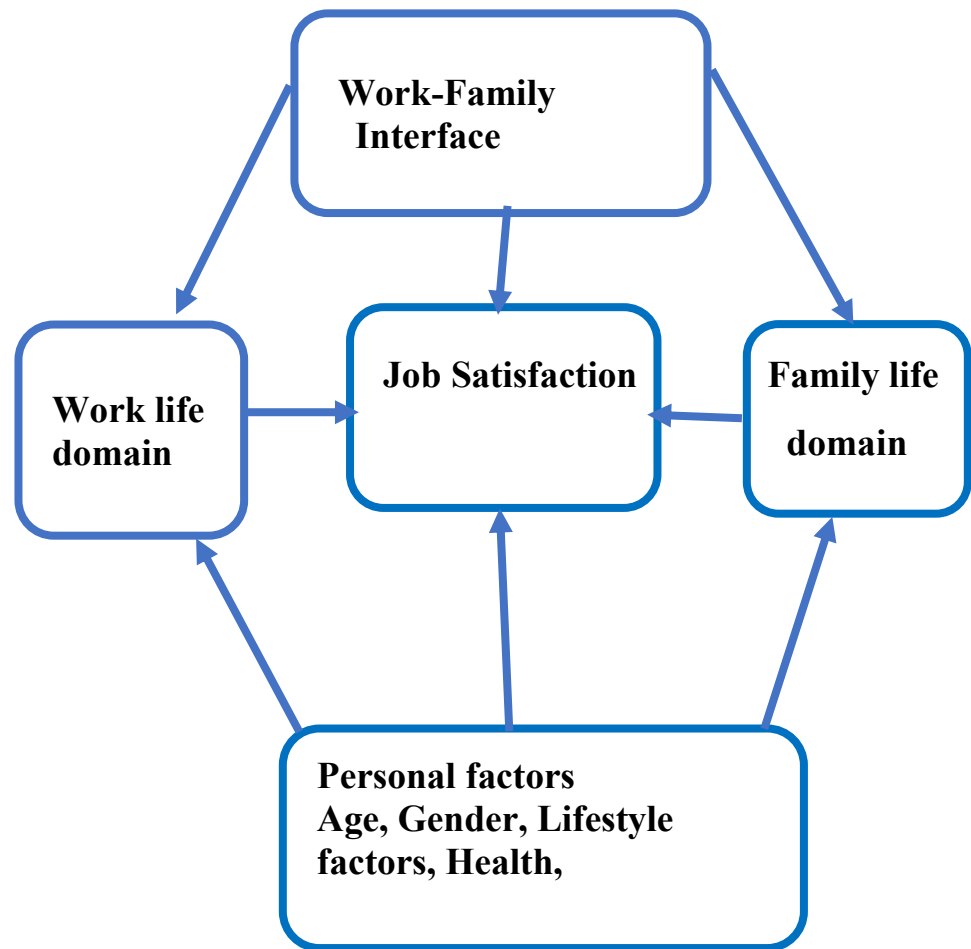
Grywacz & Marks (2000) explored multiple work and family roles can lead to a number of negative repercussions, including higher psychological stress and decreased job and family satisfaction. Lambart et al. (2006) and Grandey et al. (2005) established WFC as an important factor in shaping job satisfaction and organizational commitment. Furthermore, Weale et al. (2019) explored WFC as a mediator between workplace stressors and job satisfaction among residential aged care employees. However, the study noted that further research should include holistic work life interface while examining work life balance and job satisfaction as work life interface incorporates more than just work family conflict. Meanwhile, studies have connected work–family enrichment to job and family satisfaction (Hill, 2005), psychological well-being (Carlson et al., 2006), improved skills, self-acceptance, self-esteem (Ruderman et al., 2002), positive affect (Rothbard, 2001), and in-role and extra role performance (Demerouti et al., 2010). A systematic review and meta-analysis of 485 studies also indicated the health of workers is influenced by job satisfaction (Farager et al., 2005) greatly than other work characteristics.

While investigating the status of work-life imbalance and its impact on job satisfaction, Makabe et al. (2015) discovered that most nurses had a larger proportion of working life than personal life, and thus a work-life imbalance existed. Since the actual working proportions surpassed the private life proportion, the study further predicted that the health of nurses could be in danger and resignation might take place due to lower job satisfaction and quality of life. Employees with low work satisfaction might possibly experience mental burnout, lower self-esteem, and higher levels of both anxiety and depression (Faragher et al., 2005) as well as more prone to high job turnover, absenteeism (Wright and Bonett, 2007; Brough et al., 2009) and low wellbeing (Kuranga et al., 2020).

Similarly, the decreasing job satisfaction level with the increased age highlighted health status as an important indicator of overall job satisfaction (Berde and Rigó, 2020). If an employee has deteriorating health, it is more likely to consider the psychosocial workplace as more adverse than it is which ultimately affects job satisfaction (Thorsen et al., 2016). A good work health balance is associated with greater work autonomy, job engagement, and job satisfaction (Gragano et al., 2017). Factors like working environment, work life balance initiatives, employee intention to switch job and work pressure had considerable impact on job satisfaction among employees of private sector commercial banks in Sri Lanka (Adikaram and Jayatilake, 2016).

Likewise, Basavaraj and Arun (2016) analysed factors affecting work life balance of employees from two different perspectives; work related (standard working hours, organizational culture and practices, in house medical assistance, leave policy, peer relations, flexible working hours) and family related (marital status, number of dependents (children and elder), skills and abilities to manage relationship). The work life balance of teachers was found significantly affected by the factors: Attitude, Flexible working arrangement, and Work-life conflict whereas job satisfaction of teachers was significantly affected by the factors: Organizational commitment, Emotional intelligence and Attitude of teachers. In addition, Haar et al. (2014) demonstrated a good quality work life is essential in determining employee job satisfaction because employee with high job satisfaction have strong commitment to the company and high commitment will eventually contribute to the enhanced productivity of both employees and companies. Those who work long hours, have poor WLB, work insecurity and low professional value, according to Styhre (2011) are at danger of well-being, which leads to low job satisfaction.

## 2.6 Theoretical framework of the study



**Figure. 1** Conceptual Framework of the study

The pathway shows the linkages between exposures and outcome variables of the study aimed. Work family interface has been taken as a holistic construct. The main exposure variable demonstrated is work life balance which is the combination of work life domain and family life domain. Throughout the literature, the domain presented is typically of work sphere and family sphere. However, many other personal factors like lifestyle and health related factors, sociodemographic factors might have close associations, influences, and impacts on work life balance which could eventually have an effect on job satisfaction level of employees. Therefore, the research framework will investigate into some of these key domain variable aspects and their positive or negative association to job satisfaction applying statistical tools and analysis process.

## **THESIS SUMMARY**

This work is an article-based thesis on work life balance and job satisfaction among older employees of Finland. The literature review was written based on the thesis guideline of the Tampere University. The article part is attached to the end of the thesis. The article will be submitted to the suitable journal after the thesis has been submitted for the evaluation at the university.

The “work life balance” (WLB) concept has become increasingly common in public discourse because of the need of achieving balance between work and other areas of life. However, it is believed that the theoretical growth of WLB concept has not been developed and comprehensive as much as the wide use of the term would indicate. Likewise, majority of work–life balance research has concentrated solely on work and family roles, as work–family balance. As a result, the information gained over time about the predictors and effects of the balance with work is primarily focused on work-family balance among youth population.

This thesis was born out of the interest considering the heterogenous group of workers and their WLB situations from a broader prospect among older workers. Moreover, many studies have linked job satisfaction as a predictor variable or antecedents to WLB, however, WLB could also influence job satisfaction and this aspect has not been discovered much in the previous research studies. Hence, this study investigated work life balance through different possible predictors from work, family and health domain variables and its consequences on job satisfaction among elderly postal workers of Finland. For this, data of “Towards a two speed (2ts) survey” was analysed and presented. Information from this study will be vital regarding work life balance predictors and determinants of work life balance and its effect on job satisfaction among older employees. This will aid policy makers in planning effective work-life balance programs and organisational practice implementation for older employee’s health and well-being, growth and sustainability that will consequently enhance overall organisational productivity and efficiency.

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## **COPY OF THE ARTICLE MANUSCRIPT**

### **Work life balance and job satisfaction among older employees**

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## **Synopsis**

### **Study question**

This study estimates the work life balance from two important life spheres: work-life and family-life sphere including work and health related factors, sociodemographic factors and their association with job satisfaction among older employees of Finnish postal service.

**What's already known?** Work life balance is an emerging concern for a healthy work atmosphere and job satisfaction may be associated with work life balance issues.

**What this study adds?** This study highlights the work-life balance indicators and its impact on job satisfaction among older workers in a postal service sector.

## **Abstract**

### **Background**

The competing demands of work and family life is an important aspect of healthy work environment. This study investigated work life balance indicators from work and family life domain as well as work and health related factors and their association with job satisfaction among older employees of postal service sector.

### **Methods**

A survey on the Finnish postal service employees was conducted among 50 years and older employees (age range: 50-67; 60% males) in 2016 with the follow-up in 2018 (n = 1466). Job satisfaction at follow-up was measured in a scale of 1-6 and dichotomized (yes vs. no). Work family balance was defined by two composite variables of support at work (4 items) and work and family time (3 items) and dichotomized (low vs. high) using their median values. Other work and health related indicators and socio demographic information were also obtained through questionnaire survey. Log-binomial regression model was used to calculate the odds ratio (ORs) and their 95% confidence intervals (CIs) for the relationship between work-life balance and job satisfaction.

### **Results**

About half of the employees (49%) were satisfied with their job. Work, health and socio-demographic factors adjusted results shows that low support at work (OR 0.31, 95% CI 0.23-0.42) and low work and family time (OR 0.26, 95% CI 0.19-0.35) was associated with job satisfaction. Among work- and health-related factors, having regular day or two shifts work (compared to other forms of work), very often hurry at work (compared to sometimes) were associated with lower odds of job satisfaction while, possibility to influence work (compared to never) was associated with higher odds of job satisfaction. No or less sickness absence at work (compared to high sickness absence) was also associated with higher odds of job satisfaction.

### **Conclusion**

Poor work life balance, i.e. low support at work and low work and family time was associated with low job satisfaction. Work and family domain are integral part of healthy work environment; attention should be paid to the domains of work and family to improve older workers job satisfaction.

**Keywords:** Work family interface; work-life balance; job satisfaction; postal workers; work satisfaction



## Background

The work life balance is an important aspect of healthy work environment <sup>[1,2]</sup>. Work-life balance (WLB) concept has been studied extensively in earlier literatures <sup>[3,4,5]</sup>. However, empirical research on the construct and its definition is still limited <sup>[6,7]</sup>. In general, work and family constitute the main role domains that demands most of the time, energy and attention and are most likely to come into conflict with each other <sup>[8]</sup>. Pressures with competing demands of work and family life have an impact in achieving equilibrium in work and family life among people<sup>[9]</sup> as well as has an important implication on people's well-being and productivity <sup>[10,11,4]</sup>. Moreover, WLB is also a social and structural problem issue that society is grappling with <sup>[12,13,3]</sup>. A proper work family balance is therefore crucial for both work and family outcomes such as job satisfaction, organisational commitment, job accomplishments, family satisfaction, family performance and family functioning<sup>[14]</sup>.

Work-life balance encompasses the entirety of one's private life and focuses on "harmony or equilibrium between work and life domains"<sup>[15]</sup>. Earlier research identified work life balance as the experience of low conflict and high enrichment<sup>[16,17,18,19]</sup>, but a few recent studies have focused work life balance as a diverse from conflict and enrichment and furthermore considered as an inclusive assessment of the interaction between work and family roles<sup>[20]</sup> as well as viewed as a comprehensive and a broader construct<sup>[21]</sup> along different quadrants of life like work, family, friends and self. A healthy work-life balance is substantial as it affects not only the physical and mental development of an individual but also the overall sustainability of organisations <sup>[22]</sup>.

Job satisfaction is a key ingredient to recognition, income, promotion, and the achievement of other goals that lead to a feeling of fulfillment <sup>[23]</sup> and overall happiness <sup>[24]</sup>. It is a complex measure that involves the number of work and non-work-related factors <sup>[25,26]</sup>. Previous research has found a connection between job satisfaction and workload, burnout, and turnover intention <sup>[27,28,29,30]</sup> along with professional support, team spirit, training, and pay <sup>[31,32]</sup>. A significant association between work-life balance and job satisfaction was found in a study<sup>[33]</sup> where work-life balance was measured in terms of work demands, family workload, wellbeing, and spousal support. Irrespective of personal factors such as age, tenure, or education level, a high level of work satisfaction allows employees for long term stability on the job <sup>[30]</sup>. Several other studies have also found positive correlations between WLB and job and family satisfaction.

Nevertheless, some researchers have proposed that the sensation of balance between family and work roles is created only when individuals are extremely satisfied and successful in their respective roles, and such that lower satisfaction will result in an imbalance [34].

Most of the prior studies have focused primarily on work family conflicts or enrichment approach in work-family interface [35], likewise, mostly from midlife workers' perspectives [36]; traditionally challenging workforce like health professionals [37,38]; and corporate sectors [39,40]. Though middle-aged and older work force is regarded as one of the most valuable human resources in modern society, work life balance among older workers has not been explored much earlier. Moreover, older employees are such generations who are mostly taking care of their ageing parents and children both at the same time and even coping with their own ageing and health issues. Therefore, they are more susceptible to face difficulties at work and conflicts in everyday life that could affect their emotional and physical wellbeing [41]. Hence, this study investigated the role of work-life balance on the job satisfaction of postal service employees aged 50 years and older.

## **Materials and Methods**

### *Study Design*

This study is a part of a large study project "Towards a Two speed Finland Survey (2ts)". A national level survey was conducted in the year 2016 with a follow up survey in the year 2018 among Finnish Postal Service Employees. The Posti group, one of the Finland's biggest public sector employers, has been laying off its employees over the last few decades. The company had undergone significant structural and organisational changes including acquisitions, mergers, sales of business parts and service and operation renewals [43] along with several cooperation negotiations and emphasis to downsizings [44]. The survey included questions on health, work ability, and well-being, including work questions.

### *Study participants*

The study participants were employees of Finnish Postal Service. Finnish Postal Service has more than 20,000 employees [45] with a long history and business operations. The baseline questionnaire was sent to all the workers aged  $\geq 50$  years in the year 2016. In all, 2096 (response

rate 44%), replied to the survey. The follow-up survey was completed in 2018, with a 76% response rate from baseline respondents, n=1466. This study thus used data from 1466 subjects who replied to both the baseline and the follow-up surveys. The mean age of study population was (56.40±3.40) years where 60% were male.

## **Measurement of variables**

### ***Work-family balance***

The work-family related variables were used from the baseline survey and were defined in two main domains work life and personal/family life. Support at work <sup>[45]</sup> was a composite variable created by combining four items on support from the supervisor, support from the workmates, enough education and possibility to learn new knowledge and skills. Each item was measured on a scale of 0 (very badly) to 10 (very well). The items were summed up together and divided by four (the number of items included), and the final score ranged from 0 to 10. The composite score was dichotomised into low and high using median value (6.75) as a cut-off point.

Work and family time <sup>[46]</sup> composite variable was computed by combining three items on present working times of the organisation, work and family life combination and enough time and resources for friends and hobbies. Each item was measured on a scale of 0 (very badly) to 10 (very well). The items were then summed up and divided by three yielding the final score ranging from 0 to 10. The composite score was dichotomised into low and high using a median value (7.67) as a cut-off point.

### ***Job satisfaction***

The outcome variable, job satisfaction at follow-up was measured with a question “how satisfied are you with your current job?” <sup>[47]</sup> in a scale of 1-6 (1= very satisfied, 2= nearly satisfied, 3= neutral, 4= quite dissatisfied, 5= very dissatisfied, 6 = cannot say). A dichotomous variable was created combining the responses 1 and 2 as “Yes” job satisfaction vs “No” job satisfaction (3-6).

### ***Work-and health-related variables***

Work experience in years and in categories (<15, 15-30 or 30+ years), form of working hours (regular day work, two shift work or other form of work hours) was asked. The variable on the

harm caused by disease in the work was measured in a scale 1-6 (1= no disease, 2= no harm, 3= symptoms but can work, 4= forced to lighten the work pace, 5= can only work part time and 6= not able to work). A dichotomous variable was created as (no diseases =1 vs yes = (2-6)). Sickness absence days for last 12 months was measured in four categories (no absence, 1-7 days, 8-14 days, or 15-365 days). The possibilities to influence work and work conditions were measured on a scale of 1-4, (where, 1=usually, 2=sometimes, 3=seldom & 4=never). Hurry at work was measured on a scale of 1-5 (1= very often, 2=quite often, 3=sometimes, 4=seldom & 5= never) which was recategorized into 3 (very often =1, quite often =2 and sometimes=3 to 5).

### *Socio-demographic variables*

Age was used both in continuous and in categories (50-55, 56-60 or 60+ years), gender (female, male), two occupational categories white-collar and blue-collar, educational level (basic vs college or others), marital status (married or living together vs other) as well as caretaking someone close (no vs yes) were studied from the baseline survey.

### *Statistical Analysis*

The difference in baseline characteristics of the study population by occupation class were calculated as means and standard deviations (SD) for continuous variables from ANOVA test and frequencies and percentage for categorical variables using chi squared test. The difference in the baseline characteristics of the population were also studied among independent variables (work-family balance, work and health related variables and sociodemographic variables) and outcome variable (job satisfaction) using ANOVA test for the continuous and chi squared test for categorical variables. Log-binomial models (Generalized linear models with binary logistic assumption) was used to calculate the odds ratio (OR) and their 95% confidence intervals (CIs) for the relationship between independent variables, work and health related variables and sociodemographic variables and job satisfaction. Two models were fitted, Model I examined bivariate associations of all studied variables with job satisfaction and Model II examined the multivariate associations (all the variables of Model I were simultaneously adjusted). All statistical analysis was performed using statistical software SPSS version 25.

## Results

Table 1 presents the descriptive statistics of study subjects by occupational class. The mean age of study population was  $(56.40 \pm 3.40)$  years with no significant difference between white- and blue-collar. A significantly higher proportion of blue-collar workers (63%) were male, whereas 60% of white-collar workers were female. Likewise, considerably more (84%) of the white-collar workers had college or other education and 52% of blue-collar workers had basic education. A substantial proportion of the participants, over 77% blue collars and over 72% white collars were married. More than 80% of the participants from both occupational groups did not have caretaking responsibilities of someone close.

Among the work-related variables, the majority of the workers (87%) in white-collar occupation had regular day work, in contrast to 66% of the blue-collar workers. A significantly higher proportion of blue-collar workers (58%) had low support at work, while 73% of white-collar workers had high support at work. Work-family time was significantly higher (79%) among white-collars than blue-collar workers (56%). Similarly, 68% of blue-collar reported disease which caused harm in their work, which was 60% in case of the white-collar workers. The mean sickness absence days was significantly higher among blue-collar workers ( $19.6 \pm 35.6$ ) compared to ( $7.64 \pm 29.70$ ) among white-collar workers. No sickness absence was observed by more than 36 % of white collars during a year whereas 33% of blue collars took sickness absence days from 15 days to a year. About 45% of white collars had possibilities to influence work and work conditions on a usual basis whereas it was limited only to 13% among blue collars. More than 55% blue collars stated hurry in work most often than white collars (42%).

[Table 1 about here]

### *Support at work*

No statistically significant difference in demographic characteristics of the workers was found between low and high support at work (Table 2). Among work and health related variables, a significant difference between low and high support at work was found for harm caused by disease, sickness absence, possibilities to influence and hurry in work. Significantly more people who reported harm caused by disease at work had low support at work (71%), compared to 62% among those with high work support. The sickness absence days was significantly

higher among those who reported low work support. Similarly, workers with low work support had seldom possibilities to influence at work and were found hurry in work very often.

### ***Work and family time***

Only caretaking someone close was significantly different in demographic characteristics between workers with low or high work and family time (Table 2). A significantly higher (87%) of the workers who reported high work and family time had none to caretaking someone close compared to 82% in the low work and family time. Among work and health related variables, a significant difference was observed with regular day workers having high work and family time (72%) compared to 64% in low work and family time. Significantly higher sickness absence was reported by workers who had seldom possibilities to influence as well as more often hurry in work had low work and family time

### **[Table 2 about here]**

Table 3 presents the distribution of demographic as well as work-related characteristics of studied subjects by job satisfaction. A significant difference in job satisfaction was found between gender, and by occupational class with more females having high job satisfaction (43%), and more males having low job satisfaction (62%), whereas a large proportion of blue-collar workers had low job satisfaction (94%). Similarly, regular day work contributed to low job satisfaction among workers (70%). The mean work experience was about (28.27± 10.70) years and those with more than 30 years of experience had slightly high job satisfaction (51%). Similarly, workers with high support at work and high work and family time had high job satisfaction (67%) and (79%) respectively. Besides that, workers with long sickness absence days had less job satisfaction (38%). Workers having seldom possibilities to influence work reported low job satisfaction at work by (54%), likewise, workers with very often hurry at work had significantly low job dissatisfaction (61%).

### **[Table 3 about here]**

### ***Work-family balance***

Compared to those with high support at work workers with low support were associated with lower odds of having job satisfaction which remained strongly significant even after adjustment for a number of work-health related and demographic variables in Model II (OR 0.31, 95% CI

0.23-0.42). Likewise, workers with low work and family time compared to high work and family time were associated with lesser likelihood of having job satisfaction in both the bivariate and multivariate model (OR from multivariate model 0.26, 95% CI 0.19-0.35).

#### *Work and health related variables*

Two shift workers had lower odds of job satisfaction in both bivariate and adjusted multivariate model II (OR from multivariate model 0.36, CI 0.17-0.74). Workers with less than fifteen years of work experience tend to have a higher probability of job satisfaction in both models (OR from multivariate model 1.82, CI 1.17-2.82). Compared to those with disease, workers with no disease that caused harm at work had significantly higher odds of having job satisfaction in the bivariate model (OR 1.40, 95% CI 1.12-1.76), however, the association lost its significance in the multivariate model. Likewise, compared to those with long sickness absence days, workers having no sickness absence or less sickness absence days increased the probability of job satisfaction. The association was much stronger in the bivariate model but remained statistically significant in the multivariable model (OR for no sickness absence 1.52, CI 1.00-2.31) and (OR for 1-7 days of sickness absence 1.58, CI 1.10-2.34) respectively. Those workers who had possibilities to influence work and work conditions usually had increased odds of job satisfaction in the bivariate model which remained strongly significant even in model II (10.79, 5.09-22.88). Similarly, being hurry at work quite often significantly decreased the odds of job satisfaction in the bivariate model (OR 0.49, CI 0.37-0.66), however, the association lost its significance in model II.

Among demographic variables, compared to older workers, the younger age of workers exhibited lower odds of job satisfaction in the bivariate model, which lost its significance in the multivariate model. In bivariate model, females (OR 1.24, CI 1.00-1.52) and white collars (OR 3.76, CI 2.65-5.35) had greater odds of job satisfaction though the association was not significant in model II. Married or living together situations also did not show significant effect on odds of job satisfaction in the bivariate model, however, the effect was significant after adjustment in model II (OR 0.70, CI 0.50-0.98).

[Table 4 about here]

## Discussion

### *Summary of main findings*

The aim of the study was to examine the impact of work-family balance as well as other work-related factors on job satisfaction among older employees in postal service. Less than half of the employees (49%) had job satisfaction and was associated almost 69% lower odds with low support at work and 74% lower odds with low work and family time when adjusted for the effect of other work and health related and socio-demographic factors. Other work- and health-related factors such as having regular day work or two shifts work, hurry at work were associated with lower odds of job satisfaction, but with job experience of <15 years, possibility to influence at work and no or less sickness absence at work was associated with higher odds of being satisfied from the job. Among demographic factors, married workers were associated with lower odds of job satisfaction.

### *Work-family balance*

The study found lower odds of job satisfaction among workers with low support at work in line with earlier findings [18,35,32]. A supportive work environment, better and positive relationships with management and colleagues is considered important in maintaining a good work life balance and are the strong predictors of job satisfaction [48,49]. Earlier studies have also highlighted positive relationship of good work life balance with higher job satisfaction. Lack of supportive organizational culture and insufficient time with family and managing home responsibilities among doctors was associated with low job satisfaction [50]. Studies have shown supervisors support and supportive work-family culture are linked to job satisfaction and affective commitment [39]. Likewise, family-friendly work environment aids in minimizing work-family conflict, fostering positive work attitudes, and hence improving job satisfaction [51].

A higher level of perceived work time control has positive effect of reducing work related stress while promoting both work-family balance and job satisfaction [53]. Similarly, work and family roles had a great effect on work-family balance through Work-Family Conflict (WFC) and Work-Family Enrichment (WFE) process and is extensively associated with job and family satisfaction [11]. Lower satisfaction will result in an imbalance when individuals are unable to



fulfill respective roles of work and family life, therefore positive outcomes are associated with positive work family interface [34]. Significant work and family outcomes like family satisfaction and functioning and work satisfaction and performance could be gained through work–family balance [14]. Likewise, it was observed from the study that colleagues support had a direct connection with job satisfaction and spouse support had a direct association with job, marital, and family satisfaction. Employees report greater work–family balance as a result of social assistance from spouses and workmates. This support and balance ultimately have positive effect of satisfaction in both work and family domains [18].

### *Work and health related factors*

We found that two shift workers had lower odds of job satisfaction which was supported by earlier studies where workers with long work hours were at risk of low job satisfaction [52,53,54]. Similar to earlier findings, we found psychosocial factors such as possibilities to influence at work were associated with increased odds of job satisfaction [48]. Studies have shown flexible work arrangements not only enhance WLB by providing more autonomy in balancing work and personal life [55,56] but also helps in increasing worker’s happiness, optimistic work attitudes, job satisfaction, organisational engagement [57], job efficiency and career opportunities [7]. Flexibility and job control provided satisfaction to the majority of women entrepreneurs. Our findings showed workers with shorter tenure had high job satisfaction, and this was back up by the findings of earlier study which reported reduced job satisfaction with increased tenure [58]. This can be assumed to the fact that responsibility increases with increasing work experience so that workers might feel more pressure towards work that would degrade satisfaction regarding work. However, a study regarding age dependent effects of job features on job satisfaction among older and younger employees have revealed that younger employees are satisfied primarily by monetary rewards whereas older employees are satisfied primarily by their task contributions and interaction with supervisors in daily jobs [59]. This also highlights that there is no “one size fits all” approach regarding job satisfaction facets with diverse age work force.

Likewise, studies have also indicated wellbeing had significant effect on job satisfaction [33]. Worker with better health conditions perform tasks effectively that influence high job satisfaction. Whereas a degrading health condition prioritise for health management care and can conflict with work activity and efficiency [13]. Many other studies have predicted extended work hours as the crucial risk of low well-being that leads to poor job satisfaction [52,53,54]. A

good quality of work life is essential in determining employee job satisfaction because employee with high job satisfaction have strong commitment which will eventually contribute to the enhanced productivity of both employees and companies<sup>[53]</sup>. Our study further depicted high job satisfaction associated with no or less sickness absence days and was similar to findings from Nordic study<sup>[9]</sup> where higher odds of self-reported sickness days and more health complications were found as outcomes of poor work life balance. Hurry in work was found to be associated with lower odds of job satisfaction which was in line to results obtained from a cross-sectional study that revealed more female paediatricians feeling hurried that prevented them to balance their work and other aspects of their lives and subsequently leading to low job satisfaction<sup>[38]</sup>.

### *Sociodemographic factors*

Although not statistically significant in multivariate model, younger workers exhibited lower odds of job satisfaction compared to older workers. The findings related to age and job satisfaction in the literature are mixed. Some studies have reported that job satisfaction declines in middle years<sup>[60]</sup>, while other reported the opposite<sup>[61]</sup>. Nevertheless, our findings were in line with earlier findings which reflected younger social workers less satisfied with their jobs and in reverse as age increases job satisfaction also increases<sup>[58]</sup>. It is possible that younger workers might have unrealistically high aspirations than older employees that could affect job satisfaction whereas older employees might have less job mobility and are more likely to seek financial security and prefer to live in a permanent residence. When these factors are considered together, a person's job satisfaction may increase as they get older. Further studies also showed older generations were more satisfied with their jobs compared to younger generations such as doctors born prior to 1980 had greater job satisfaction level as they value non-work segments of life more than the younger cohorts<sup>[62,50]</sup>.

The result of present study demonstrating female workers having high odds of job satisfaction was contrary to other previous studies<sup>[38,63,64]</sup> although the association was not statistically significant in multivariate model. This result could be linked to the study result where lower levels of work life conflict was observed indicating a positive societal effect of Finland and Norway<sup>[65]</sup>. Likewise, the study participants were above 50 years and the caretaking responsibilities in the whole study prevailed to some extent only that might have possibly influenced high job satisfaction among women in this study. However, studies<sup>[66,67]</sup> connected

that women tend to have poor work life outcomes than men due to gendered patterns of work and care-giving practice still remain more on shoulders of women regardless of hours worked.

On the other hand, married or cohabiting partners in this study were associated with lower odds of job satisfaction which was similar to other study results <sup>[63]</sup>. However, some studies have revealed that an employee may balance the various, often challenging demands of work and family life with the help of a supportive partner and at the same time enrich work and life satisfaction <sup>[18]</sup>. Though the multivariate analysis of our study did not show any significance except higher odds of job satisfaction among white collar workers in bivariate model, however, when viewed through the job characteristics features like job control and autonomy, studies have shown white-collar workers more satisfied with their work duties than their blue-collar counterparts <sup>[68]</sup>. In addition, when defined blue-collar workers primarily as physical workers and whose career paths are relatively restricted <sup>[69]</sup> and white-collar workers as professional and semi-professional employees <sup>[70]</sup> and comparing job satisfaction between these groups, blue-collar workers tend to have low job satisfaction than their white-collar colleagues regarding various aspects of their jobs like pay, their supervisors and the work itself <sup>[71]</sup>.

### **Strength and Limitations**

Our study benefited with a longitudinal design with good statistical power among older age workers in postal service. Some limitation should be considered while interpreting our findings. The study investigated the work family balance exposure variables from work and family domain perspective along with few indicators of health in addition because of its importance and association in both work and family interface. Since the indicators and variables of work and family studied in this project are not fully comprehensive, which means that all items of work and family interfaces are not fully captured in our study. However, the significant size of the participating organization in this study and the forms of work undertaken in postal services are similar in many countries, this study could offer some generalizability. Indeed, there are many other unmeasured aspects of work like payroll, terms of employment, promotional chances, timely training, that might have an impact on job satisfaction level. Similarly, partner support, relatives support, social, cultural and environmental interaction along with personal lifestyle factors also might influence work life balance perspective which are lacking in our study.

## **Conclusion**

Poor work-life balance in terms of low support at work and low work and family time was associated with poor job satisfaction among older postal service employees. Work and family domain are an integral part of work family interface; hence effort should be put from all levels to ensure a positive balance between these two spheres.

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**Table 1:** Baseline characteristics of the study population by occupational class

Variables	Total N=1456	Occupational class		P-value
		White-collar n=188	Blue-collar n=1268	
Age (Mean, SD)	56.40 (3.40)	56.50 (3.41)	56.39 (3.40)	0.696
Age in categories (years)				
50-55	621	84 (44.7)	537 (42.4)	0.635
56-60	627	75 (39.9)	552 (43.5)	
60+	208	29 (15.4)	179 (14.1)	
Gender				<0.001
Female	584	113 (60.1)	471 (37.1)	
Male	875	75 (39.9)	800 (62.9)	
Education				<0.001
Basic education	685	30 (16)	655 (51.9)	
College or others	766	158 (84)	608 (48.1)	
Marital status				0.148
Married or living together	1063	145 (77.5)	918 (72.5)	
other	390	42 (22.5)	348 (27.5)	
Caretaking someone close				
no	1181	148 (80.4)	1033 (85.1)	0.104
yes	217	36 (19.6)	181 (14.9)	
Form of working hours				<0.001
Regular day work	1000	162 (86.6)	838 (66)	
Regular two shift work	71	8 (4.3)	63 (5)	
Other form of work hours	385	17 (9.1)	368 (29)	
Work experience (Mean, SD)	28.27 (10.67)	28.54 (11.23)	28.23 (10.58)	0.716
Work experience in categories				0.521
<15yrs	233	30 (16.4)	203 (16.5)	
15-30 yrs	457	53 (29)	404 (32.9)	
30+ yrs	720	100 (54.6)	620 (50.5)	
Support at work				<0.001
low	769	50 (27.3)	719 (57.5)	
high	665	133 (72.7)	532 (42.5)	
Work and Family time				<0.001
low	592	37 (20.6)	555 (44.3)	
high	841	143 (79.4)	698 (55.7)	
Harm caused by disease in work				0.023
No disease	462	73 (40.1)	389 (31.7)	
yes	949	109 (59.9)	840 (68.3)	
Sickness absence, (mean, SD)	17.97 (35.11)	7.64 (29.70)	19.65 (35.64)	<0.001

Sickness absence, categories				<0.001
no sickness absence	341	66 (36.3)	275 (24.6)	
1-7 days	404	87 (47.8)	317 (28.3)	
8-14 days	168	10 (5.5)	158 (14.1)	
15-365 days	388	19 (10.4)	369 (33)	
Possibilities to influence				<0.001
Usually	251	84 (44.7)	167 (13.1)	
Sometimes	445	61 (32.4)	384 (30.2)	
Seldom	618	41 (21.8)	577 (45.4)	
Never	145	2 (1.1)	143 (11.3)	
Hurry in work				0.001
Very often	780	78 (41.5)	702 (55.2)	
Quite often	435	67 (35.6)	368 (29)	
sometimes	244	43 (22.9)	201 (15.8)	

**Table 2:** Distribution of study characteristics by work support and work family variables.

	Total N=1437	Support at work		p- value	Total N=1436	Work and family time		P-value
		low n=771	high n=666			low n=843	high n=593	
Age (Mean, SD)	56.42 (3.39)	56.44 (3.36)	56.39 (3.44)	0.772		56.40 (3.30)	56.41 (3.46)	0.925
Age (years)				0.871				0.250
50-55	609	322 (41.8)	287 (43.1)		612	241 (40.6)	371 (44)	
56-60	623	337 (43.7)	286 (42.9)		619	271 (45.7)	348 (41.3)	
60+	205	112 (14.5)	93 (14.0)		205	81 (13.7)	124 (14.7)	
Gender				0.120				0.066
Female	582	298 (38.6)	284 (42.6)		580	223 (37.5)	357 (42.3)	
Male	858	475 (61.4)	383 (57.4)		859	372 (62.5)	487 (57.7)	
Education				0.255				0.202
Basic	673	371 (48.5)	302 (45.5)		681	294 (49.7)	387 (46.2)	
Others	756	394 (51.5)	362 (54.5)		748	298 (50.3)	450 (53.8)	
Marital status				0.443				0.147
married/Living together	1051	558 (72.6)	493 (74.4)		1051	446 (75.5)	605 (72)	
Other	381	211 (27.4)	170 (25.6)		380	145 (24.5)	235 (28)	
Caretaking someone close				0.642				0.005
no	1167	628 (84.9)	539 (84)		1169	462 (81.5)	707 (87)	
yes	215	112 (15.1)	103 (16)		211	105 (18.5)	106 (13)	
Work exposure variables				0.992				0.003
Form of working hours								
Regular day work	991	532 (69.1)	459 (69)		985	377 (63.8)	608 (72.1)	
Two shifts work	70	38 (4.9)	32 (4.8)		69	35 (5.9)	34 (4)	
Other form of workhours	374	200 (26)	174 (26.2)		380	179 (30.3)	201 (23.8)	
Work experience (Mean, SD)	28.26 (10.69)	28.52 (10.70)	27.96 (10.69)	0.331	28.31 (10.69)	28.68 (10.65)	28.04 (10.72)	0.276
Work experience (years)				0.874				0.722
<15	229	120 (16)	109 (17)		230	91 (15.8)	139 (17.1)	
15-30	451	243 (32.4)	208 (32.4)		447	184 (31.9)	263 (32.4)	

30+	710	386 (51.5)	324 (50.5)		711	302 (52.3)	409 (50.4)	
Harm caused by disease				0.001				0.051
No disease	458	218 (28.8)	240 (37.6)		459	176 (30.1)	283 (35.1)	
yes	937	538 (71.2)	399 (62.4)		933	409 (69.9)	524 (64.9)	
Sickness absence	18 (35.26)	21.94 (40.79)	13.36 (26.66)	<0.001	17.89(34.75)	21.99 (38.41)	14.97 (31.58)	<0.001
Sickness absence, categories				<0.001				<0.001
No sickness absence	337	147 (21.2)	190 (32.1)		333	98 (18.4)	235 (31.4)	
1-7 days	398	202 (29.1)	196 (33.2)		399	153 (28.7)	246 32.9)	
8-14 days	168	100 (14.4)	68 (11.5)		167	83 (15.5)	84 (11.2)	
15-365 days	383	246 (35.4)	137 (23.2)		383	200 (37.5)	183 (24.5)	
Possibilities to influence				<0.001				<0.001
Usually	246	52 (6.7)	194 (29.1)		245	37 (6.2)	208 (24.6)	
Sometimes	439	170 (22)	269 (40.3)		441	151 (25.4)	290 (34.4)	
Seldom	612	422 (54.6)	190 (28.5)		610	311 (52.3)	299 (35.4)	
Never	143	129 (16.7)	14 (2.1)		143	96 (16.1)	47 (5.6)	
Hurry in work				0.002				<0.001
Very often	773	442 (57.2)	331 (49.6)		774	378 (63.5)	396 (46.9)	
Quite often	428	205 (26.5)	223 (33.4)		429	154 (25.9)	275 (32.6)	
sometimes	239	126 (16.3)	113 (16.9)		236	63 (10.6)	173 (20.5)	

**Table 3:** Distribution of study characteristics by job satisfaction.

Variables	Total N=1454	Job satisfaction (n %)		p-value
		No n=745	Yes n=709	
Age (Mean, SD)	56.42 (3.41)	56.29 (3.28)	56.56 (3.53)	0.133
Age category (years)				0.055
50-55	616	318 (42.7)	298 (42)	
56-60	630	336 (45.1)	294 (41.5)	
60+	208	91 (12.2)	117 (16.5)	
Gender				0.049
Female	584	281 (37.6)	303 (42.7)	
Male	873	466 (62.4)	407 (57.3)	
Education				0.162
Basic education	682	363 (48.9)	319 (45.2)	
College or others	765	379 (51.1)	386 (54.8)	
Marital status				0.151
Married or living together	1060	556 (74.7)	504 (71.4)	
Other	390	188 (25.3)	202 (28.6)	
Caretaking someone close				0.289
no	1179	595 (83.5)	584 (85.5)	
yes	217	118 (16.5)	99 (14.5)	
Occupational class				<0.001
White collar	186	46 (6.2)	140 (19.8)	
Blue collar	1266	700 (93.8)	566 (80.2)	
Form of working hours				0.022
Regular day work	1000	518 (69.5)	482 (68.1)	
Regular two shift work	71	46 (6.2)	25 (3.5)	
Other form of work hours	382	181 (24.3)	201 (28.4)	
Work experience (Mean, SD)	28.27 (10.70)	28.89 (10.05)	27.62 (11.31)	0.026
work experience (years)				0.001
<15	233	95 (13.2)	138 (20)	
15-30	454	251 (35)	203 (29.4)	
30+	721	371 (51.7)	350 (50.7)	
Support at work				<0.001
low	770	543 (73.5)	227 (32.8)	
high	662	196 (26.5)	466 (67.2)	
Work and family time				<0.001
low	593	446 (61)	147 (21)	
high	838	285 (39)	553 (79)	
Harm caused by disease				
No disease	461	213 (29.1)	248 (36.6)	
yes	949	519 (70.9)	430 (63.4)	
Sickness absence days	17.96 (35.12)	22.35 (38.21)	13.21 (30.78)	<0.001
Sickness absence, categories				<0.001
no sickness absence	341	136 (20.1)	205 (32.8)	
1-7 days	404	185 (27.4)	219 (35)	
8-14 days	167	99 (14.7)	68 (10.9)	



15-365 days	388	255 (37.8)	133 (21.3)	
Possibilities to influence				<0.001
Usually	251	43 (5.8)	208 (29.3)	
Sometimes	443	178 (23.8)	265 (37.3)	
Seldom	618	402 (53.8)	216 (30.4)	
Never	145	124 (16.6)	21 (3)	
Hurry in work				<0.001
Very often	780	459 (61.4)	321 (45.2)	
Quite often	435	188 (25.2)	247 (34.8)	
Sometimes	242	100 (13.4)	142 (20)	

**Table 4:** Association of work life balance with job satisfaction among postal workers. Odds ratio (ORs) and their 95% confidence intervals (CIs) from log-binomial models.

Characteristics	OR, 95% CI	
	Model I	Model II
Age Category		
50-55	0.73 (0.53-1.00)	0.74 (0.47-1.17)
56-60	0.68 (0.50-0.93)	0.75 (0.47-1.18)
60+	1	1
Gender		
Female	1.24 (1.00-1.52)	1.33 (0.96-1.85)
Male	1	1
Education		
Basic Education	0.86 (0.70-1.06)	1.07 (0.79-1.46)
College or others	1	1
Marital Status		
married	0.84 (0.67-1.06)	0.70 (0.50-0.98)
other	1	1
Occupational Class		
white collar	3.76 (2.65-5.35)	1.56 (0.94-2.58)
blue collar	1	1
Caretaking Someone close		
No	1.17 (0.87-1.56)	0.89 (0.58-1.34)
Yes	1	1
Form of work hours		
Regular day	0.84 (0.66-1.06)	0.56 (0.39-0.80)
Two shifts work	0.49 (0.29-0.83)	0.36 (0.17-0.74)
Other forms	1	1
Work Experience (years)		
<15	1.54 (1.14-2.08)	1.82 (1.17-2.82)
15-30	0.86 (0.68-1.09)	0.95 (0.67-1.34)
30+	1	1
Support at work		
low	0.18 (0.14-0.22)	0.31 (0.23-0.42)
high	1	1
Work and Family time		
low	0.17 (0.13-0.21)	0.26 (0.19-0.35)
high	1	1
Harm caused by disease in work		

No disease	1.40 (1.12-1.76)	1.20 (0.86-1.68)
yes	1	1
Sickness absence days		
no absence	2.89 (2.14-3.90)	1.52 (1.00-2.31)
1-7 days	2.27 (1.70-3.02)	1.58 (1.10-2.34)
8-14 days	1.32 (0.90-1.91)	1.19 (0.73-1.93)
15-365 days	1	1
Possibilities to influence		
Usually	28.56 (16.20-50.36)	10.79 (5.09-22.88)
Sometimes	8.79 (5.33-14.49)	4.72 (2.43-9.17)
Seldom	3.17 (1.94-5.18)	2.76 (1.45-5.25)
Never	1	1
Hurry in work		
Very often	1.42 (1.10-1.83)	0.54 (0.35-0.83)
Quite often	0.49 (0.37-0.66)	0.81 (0.51-1.30)
Sometimes	1	1

Model I: bivariate analysis

Model II: Simultaneous adjustment of all variables included in the model.